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LINKING MITIGATION ACTIONS IN DEVELOPING COUNTRIES WITH MITIGATION SUPPORT: A CONCEPTUAL FRAMEWORK

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FOREWORD

This document was prepared by the OECD and IEA Secretariats in March 2009 in response to the Annex I Expert Group on the United Nations Framework Convention on Climate Change (UNFCCC). The Annex I Expert Group oversees development of analytical papers for the purpose of providing useful and timely input to the climate change negotiations. These papers may also be useful to national policy-makers and other decision-makers. In a collaborative effort, authors work with the Annex I Expert Group to develop these papers. However, the papers do not necessarily represent the views of the OECD or the IEA, nor are they intended to prejudge the views of countries participating in the Annex I Expert Group. Rather, they are Secretariat information papers intended to inform Member countries, as well as the UNFCCC audience.

The Annex I Parties or countries referred to in this document are those listed in Annex I of the UNFCCC (as amended at the 3rd Conference of the Parties in December 1997): Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, the European Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, and United States of America. Korea and Mexico, as OECD member countries, also participate in the Annex I Expert Group. Where this document refers to "countries" or "governments", it is also intended to include "regional economic organisations", if appropriate.

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Executive Summary

While the Bali Action Plan suggests the possibility of linking GHG mitigation action in developing countries with support for such action, in a "measurable, reportable and verifiable (MRV)" manner, it does not specify the relationship between nationally appropriate mitigation actions (NAMAs) in developing countries and support for such actions. In particular it leaves open the question of whether or not the two should be explicitly linked, or whether progress in one area might be dependent on progress in the other area (e.g. actions are dependent on financing or financing is dependent on actions). It also remains unclear whether the MRV requirements apply to the link between NAMAs in developing countries and mitigation support, or to one or both of the separate elements.

An effective framework to link mitigation actions in developing countries with mitigation support from developed countries[1] could provide a means to better match financial and technical mitigation support with the mitigation priorities and opportunities identified by developing countries. As such, it could be a means to advance ambitious global mitigation under the post-2012 agreement in a measurable and cost-effective way. A linking framework could also incentivise mitigation that would be additional to what could be achieved unilaterally or through the existing carbon market. This paper suggests a number of elements for a possible conceptual framework to "link" mitigation actions with mitigation support, including practical considerations for how to measure, report and verify progress, with a view to understanding the role for such a framework in a post-2012 agreement.

The design of a successful and effective linking framework might aim to achieve a number of specific goals. On the action side, a key goal may be to integrate NAMAs in developing countries into national development plans (or at least a national mitigation strategy) and to address a significant portion of a country's mitigation potential opportunities, particularly for the more advanced developing countries. In this context the paper raises several questions such as:

- Are the NAMAs covered in a linking framework helping to deliver greenhouse gas (GHG) reductions in the medium-term to long-term, in addition to what might already be achieved unilaterally or through the carbon market?

- Are the NAMAs designed to identify the scale and nature of the mitigation support required for the implementation?

- Are the NAMAs consistent with and mutually supportive of domestic development priorities?

On the support side, important goals are perhaps cost-effectiveness and how to prioritise spending, thus key questions might include:

- Is the linking framework designed to target support to NAMAs in a manner that delivers least-cost mitigation and maximises the performance of necessarily limited public support?

- What eligibility criteria and priorities for spending should guide decisions on where to direct mitigation support?'

[1] The Bali Action Plan reference to support could refer to support that is provided within a country (i.e. from the government's own revenues), support that is transferred from one or more developing countries to other developing countries (South-South support), and/or support from developed countries to developing countries (North-South support). This paper focuses on support between "contributor" (or donor) and recipient countries.

For a linking framework to successfully address the above issues, in fact, both actions and support would need to be measurable, reportable and verifiable (MRV). Building on existing systems, a framework for MRV based on both the actual, possible or planned mitigation actions in developing countries as well as on current (public) mitigation support from developed countries could be a good starting point for further development of a linking framework. At a minimum, decisions at the upcoming 15th Conference of the Parties (COP-15) to the UN Framework Convention on Climate Change might aim to advance MRV of both elements individually to enable better understanding of possible (or actual) linking between action in developing countries and support from developed countries.

1. Introduction

The Bali Action Plan introduced the notion of linking greenhouse gas (GHG) mitigation actions by developing countries, and support for such actions. Paragraph 1(b) (ii) of the Bali Action Plan calls for:

Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.

This suggests that either or both nationally appropriate mitigation actions (NAMAs) and technology, financing and capacity building (referred to here as "mitigation support") should occur in a manner that is measurable, reportable and verifiable (MRV).[2] However, the Bali Action Plan does not specify the relationship between NAMAs in developing countries and support for such actions. In particular it leaves open the question of whether the two should be linked or whether progress in one area is dependent on progress in the other area (e.g. actions are dependent on financing or financing is dependent on actions). It also remains unclear whether the MRV requirements apply to the link between NAMAs in developing countries and mitigation support, to one or both of the separate elements or to all three dimensions of the linking notion.

Designing an effective framework for linking mitigation actions in developing countries with mitigation support from developed countries[3] could be a means to advance ambitious global mitigation under the post-2012 agreement. Such a framework could aim to better match financial and technical mitigation support with the mitigation priorities and opportunities identified by developing countries, i.e. NAMAs.

This paper outlines a conceptual framework for "linking" mitigation actions with mitigation support which in turn will provide insights into what is needed to measure, report and verify progress within such a framework. The paper is structured as follows: Sections 2 and 3 sketch a conceptual framework for linking mitigation actions with support. Building on the conceptual framework, Section 4 concludes by highlighting important issues for the design of an effective linking framework in the post-2012 agreement.

[2] In defining a framework for MRV of action and/or support, many issues still remain to be addressed. Still to be defined for the post-2012 regime are the scope of what needs to be measured (e.g. GHG outcomes, intermediate outcomes, or inputs), how it should be measured, when MRV is required, and who should be responsible for doing it. Work on MRV of mitigation actions is addressed in a separate paper (Ellis and Moarif, 2009). Similarly work on MRV of mitigation support is forthcoming and we have drawn on this work to write this paper.

[3] See Infra note 2.

2. A Conceptual Framework to Link Mitigation Actions with Support

The process of linking mitigation actions with support involves at least three steps:

i. Identification of mitigation actions or NAMAs in developing countries and estimation of their potential effects on GHG emissions.4

ii. Identification of domestic implementation requirements.

iii. Identification of the need for and/or availability of relevant mitigation support.

Linking mitigation actions in developing countries with developed country support could start by identifying what constitutes NAMAs, perhaps in the form of a national action plan or strategies, or by a listing of appropriate policies and measures. A second and intertwined step is to understand what is required to implement the actions at the domestic level. Based on this assessment, the host country could estimate the amount and type of mitigation support that would be required or desired. In parallel, the availability of mitigation support going to a particular country or category of countries could be assessed. Support for mitigation action within developing countries could be of different kinds: from the finance of technology acquisition to the technical training of government officials in a specific policy area; however, if the target is mitigation, support should ultimately affect GHG emission performance, either directly or indirectly, at national or sub-national scale. Before moving onto the various elements of this framework, the next section defines key concepts.

2.1 Defining 'nationally appropriate mitigation actions' (NAMAs)

What constitutes NAMAs still remains to be determined. Regarding the content of NAMAs, several proposals are currently on the table, including:

- Sustainable development policies and mechanisms (SD-PAMS).[5]

- A national strategy on climate change or policy packages aimed at delivering broad improvements in GHG emissions, including specific energy policies aimed at improving the carbon and energy intensity.[6]

[4] Mitigation actions or NAMAs should in principle be linked to GHG performance or to other proxies of performance (e.g. change in energy use or area reforested) (Fransen et al. 2008). However in practice it is often difficult to isolate and accurately estimate the effects of individual or even clusters of mitigation policy or actions (Michaelis 1998; Ellis and Larsen 2008). One way of addressing this problem is perhaps by carrying out an ex-ante estimation of mitigation for NAMAs followed by ex-post assessment.

[5] The proposals by the EC and its member States, Republic of Korea, the Philippines, Singapore and South Africa all include SD-PAMS as NAMAs (UNFCCC, 2008b). South Africa for instance proposed that SD-PAMs approach can be applied to reducing emissions from energy supply and use, but equally to reducing emissions from deforestation and degradation (REDD) in developing countries through incentives (funding for SD-PAMS; public funding or market-linked sources). However it is proposed here not to limit the scope of NAMAs to these sectors alone.

[6] The proposals by the EC and its member States and South Africa include this type of actions as NAMAs (UNFCCC, 2008d; UNFCCC, 2008b). Other forms of NAMAs proposed by several countries including Canada, EC and its member States, Australia, Japan and South Africa include sectoral trading and sectoral crediting mechanisms. EC, Japan and South Africa also proposed to include programmatic CDM and no-lose sectoral crediting baselines as NAMAs (UNFCCC, 2008b).

For the purpose of this paper, NAMAs include actions targeting GHG mitigation directly (climate-specific) as well as actions that would occur regardless of climate change reasons (climate-relevant) but that directly affect GHG emissions (e.g. energy efficiency policy).[7] In this case, NAMAs include policy reforms that drive actions to reduce emissions, even if GHG mitigation is not the main goal of the policy. Ideally the scope of NAMAs would be broad enough to include policies and measures in all sectors with high mitigation potential. NAMAs may also occur at different levels or scales of action; that is they might be at project level, sector level or at more programmatic or national level, providing a framework for integrating low-carbon, climate-friendly practice strategically across all sectors within a national economy.[8]

Within the context of a linking process, it may also be important who decides what a NAMA is and how it is decided. For example, mitigation actions could be identified by the developing country in consideration of the global mitigation objectives and specific commitments agreed internationally in a post-2012 framework.

NAMAs can also take various forms including different types of policies and measures with varying forms and degrees of monitoring, verification and enforcement. The types of action include: institutional reform (e.g. introduction of renewable energy law); new regulatory measures (e.g. appliance energy efficiency standards and/or product labelling, design standards for building efficiency); fiscal measures (e.g. reduced VAT and income tax for wind energy investment and projects; removal of subsidies to fossil fuel use) or R&D support (e.g. public financing of R&D for clean coal technology). A number of soft measures may also affect GHG emissions including voluntary agreements with the business sector (e.g. an energy efficiency accord in a particular part of the industrial sector), education and information measures (e.g. a public awareness campaign targeting consumer behaviour; incorporation of climate change information into national educational curricula). Importantly, different types of measures may have different possibilities for measurement, reporting and verification (see Ellis and Moarif, 2009).

2.2 Defining domestic implementation requirements

The implementation of mitigation actions will require a variety of changes at the domestic level, from changes in institutions to changes in investment, productive capital and technology. The same policy or type of mitigation action may require different changes in different countries, and only those familiar with the specific domestic policy context will be in the position to accurately assess implementation requirements.

Domestic implementation requirements refer to changes in these various inputs to turn mitigation potentials and supporting policy options into mitigation actions. This could include, for example, the establishment of policy frameworks that favour investment, that educate the workforce and that incentivise research and innovation. These changes must be seen as part of the broader enabling environment for investment which steers domestic as well as foreign private investment (UNFCCC, 2008f). Given that public finance is inevitably more limited and constrained than private finance, a key aspect of a domestic policy framework will be to provide incentives for private investment to flow toward clean, climate-friendly development options. In this context, the goal of NAMAs must be to mainstream incentives for

[7] Although some countries may consider actions related to preparing and reporting GHG inventories and National Communications part of NAMAs, this paper does not focus on these types of actions and support provided for such actions. However the Convention obligates developed countries' to provide support to fulfil national reporting requirements (i.e. to prepare and submit national GHG inventories to monitor changes in emissions by sources and removals by sinks over time; and national communications to share information on national actions to implement the Convention).

[8] This was referred to as a 'compact approach' in a statement by Ed Miliband, Energy and Climate Change Secretary of the UK delivered at the special workshop on a shared vision during COP-14 in Poznan, December 2008.

clean development into sectoral and other policy frameworks to guide private investment to green technology and practices increasingly over time.

Box 1. Domestic Implementation Requirements: An Example from the Power Sector

In the power sector, a nationally appropriate mitigation action, for example, might be to expand the share of renewable energy in the electricity supply mix. Enabling this objective may first require an improvement of the domestic transmission grid, towards what some have referred to as "smart grids" (Talbot 2009). Modern electricity transmission infrastructure is essential to enable better development and use of renewable energy in the power sector. In many countries the transmission infrastructure is not in the private domain, but partially or totally owned and operated by the government or by regulated companies. Providing incentives for such operators to accommodate a larger share of renewable could be a necessary condition to pave the way for more renewable sources. As such, electricity transmission or grid infrastructure may be an important target for public action and finance, at a minimum to leverage private finance and investment towards low-carbon power generation. Ultimately investment in a "smart" grid may be a pre-requisite to successful national renewable energy policy reform in the power sector.

2.3 Defining mitigation support

For the purposes of this paper, mitigation support is defined as international action that would trigger, or directly provide financing, capacity building and technology support.[9] . Specifically:

- **"Mitigation specific support"** targets greenhouse gas mitigation in developing countries as its main objective.[10] It may also include public finance (or capacity building) or private finance, for example through the international carbon market.

As noted above the source of mitigation support may be public or private. Specifically finance for mitigation may be public, for example, in the form of ODA or otherwise from public treasuries, and where dispersal is overseen through government decision-making. Alternatively it may be private, for example, working through energy markets, where competition through the market determines any allocation of resources and where government policies serve only to guide or shape market activities (and to penalise any misbehaviour). Finally public-private partnerships are also common, particularly in some relevant areas such as energy supply, transport or water infrastructure, where there is some combination of both public and private finance, for example where public investment stimulates and leverages private finance.

A second dimension of mitigation support is its geographic origin or type. Mitigation support can be North-South, with finance flowing from developed to developing countries. It can also be South-South, where finance flows from one developing country to another. It may also be domestic where the finance is

[9] The Bali Action Plan, like the Kyoto Protocol and the Climate Convention, identify these three forms of mitigation support. In practice finance is cross-cutting and would be needed to support capacity building and technology. The discussion here focuses on financing but is intended to be broad enough to also cover other forms of support such as in-kind contributions of expertise and advice.

[10] This type of support may also target reporting requirements (e.g. preparation and reporting of national greenhouse gas inventories or of national communications including a description of national mitigation policies and measures). Reporting is related to mitigation capacity because it is essential to enhance understanding and implementation of effective mitigation policy, and may thus also be essential to be linked to support.

generated domestically (in this case from within the developing country itself). For any particular NAMA, it may be essential to use a mix of these different types of finance.

3. Linking Actions with Support

As mentioned earlier, the process of linking mitigation actions in developing countries with support would involve several steps. A number of questions trace these steps and guide this investigation of "linking":

- How to ensure that NAMAs deliver cost-effective, measurable and additional GHG mitigation?
- How much will implementation of NAMAs cost?
- What support does Country A need to implement the NAMAs? How can such needs be evaluated?
- If there is X amount of (public) resources available for mitigation support, how can it be best directed to maximise the mitigation results that derive from that investment? How can it be assured that support for mitigation action also enhances development outcomes in developing countries?
- What eligibility criteria and priorities for spending should guide decisions on where to direct mitigation support?
- Aside from cost-effectiveness, what other considerations should influence decision-making about how to direct mitigation support?

The following section further illustrates the process of linking actions with support and what is needed to measure, report and verify progress.

3.1 From actions to support

A linking exercise first might consider mitigation actions in developing countries in the context of their GHG performance and look at what resources (financial and human) would be needed for their implementation both at the domestic and international levels for their implementation. Whatever form NAMAs might take, they should clearly demonstrate measurable GHG mitigation as one of the main end results.[11] At a minimum, NAMAs could be submitted with estimates of their GHG mitigation potential. Mexico in its National Strategy on Climate Change for instance identifies opportunities for mitigation measures and corresponding mitigation potential in sectors such as energy and land-use change and vegetation (see Box 2) (World Bank, 2008)[12]

Implementing mitigation actions will have implications for different types of inputs at both domestic and international levels. For instance, mitigation actions such as introducing an industry energy efficiency law, fiscal subsidies for clean fuels and building codes that improve energy efficiency principally require institutional and regulatory reforms at the domestic level. Implementing such actions may further require changes of technologies and infrastructure or promoting certain types of technologies. For instance,

[11] See Infra note 5.

[12] In its proposal on 'registry', South Korea proposes that the expected quantify of mitigation resulting from its NAMAs to be registered together with NAMAs (UNFCCC, 2008e). See Infra note 4 for further discussion on this issue.

implementing energy efficiency laws in industry may involve the promotion of technologies such as combined heat and power (CHP) systems and energy efficient electric motors. A relevant question for successful implementation of NAMAs is thus: what are the inputs required for implementing mitigation actions at the domestic level? This question covers several related questions: Should there be new technology subsidies or other market incentives, or mandatory performance standards to be put in place by the government as part of its mitigation effort? Should there be training provided to support the adoption of new practices? And if so how should it be provided and financed?

The analysis of a linkage between mitigation actions and their implementation requirements at the domestic level could increase understanding of successful implementation of mitigation actions at the domestic level and more accurate implementation costs (Fransen et al. 2008). It could also help developing country Parties strategize mitigation actions in a broader policy framework, thereby enabling more efficient and effective implementation of mitigation actions.

In linking NAMAs in developing countries with developed countries' support, another important question is 'How can countries identify support needs and for which actions?' The parallel submissions for a 'registry' or 'register' of NAMAs by South Korea and South Africa (UNFCCC, 2008f) suggest that developing countries may voluntarily register NAMAs and specify support needed for their implementation.[13] However there is little discussion of supporting ex ante analysis or of ex post review mechanisms to support decision-making on the key question of how to prioritise spending to ensure effectiveness and efficiency in investments over time.

The European Commission's (EC) recent communication on 'low carbon development strategies' also highlights that developing country actions should be entered into an international registry with measurable, reportable and verifiable mitigation benefits and that the strategies should identify the support required to cover the incremental costs of implementing the proposed actions. To facilitate the provision of the identified support needs, the EC therefore proposes to carry out an ex ante technical analysis on the following issues: business-as-usual emissions estimates; technology and policy assumptions underlying proposed actions; and incremental cost estimates (EC, 2009a; EC, 2009b).

[13]The two proposals diverge on their view of the role of registry or register; South Korea emphasizes that the registry of NAMAs could serve as a basis of institutional framework of recognizing domestic actions of developing countries, while South Africa highlights in its proposal that the idea of registry is to a certain extent in line with Article 12.4 of the Convention requiring developing country Parties, on a voluntary basis, to propose projects for financing along with, if possible, an estimate of all incremental costs of the reductions of emissions as well as an estimate of the consequent benefits (UNFCCC, 2008d; UNFCCC, 2008e).

Box 2. An Example of Linking Actions with Support

The Government of Mexico has requested US$501.2 million from the International Bank for Reconstruction and Development (IBRD) to implement the National Climate Change Strategy; the NCCS has outlined the various actions to address climate change in a number of sectors including energy, water, housing, tourism, agriculture and forestry. While mitigation potential was also estimated for actions proposed in priority areas, implementation cost of the proposed actions is not readily available.[14] Hence matching the scale of support needed for implementation with the cost of these actions is difficult.

Source : World Bank (2008)

Another question is 'Which actions would be subject to the provision of support? In its proposal, South Korea distinguishes actions that developing countries would take unilaterally, i.e. without support, and additional actions with support, which are subject to the identification of support needs and their provision. The EC communication also distinguishes between 'autonomous action' on the one hand,[15] or those with low or negative overall costs, mainly to be financed and implemented by the country (e.g. energy efficiency), and 'additional or supported actions' on the other hand, which would require assistance, due to their incremental costs, in the form of financing, technology or capacity building for implementation (e.g. in the buildings or transport sectors) (EC, 2009b).

One of the challenges to these proposals however is to distinguish 'autonomous' or 'unilateral' actions from 'additional' or 'supported' actions, particularly when the cost of implementing NAMAs is hard to estimate as observed in the case of Mexico. Another option would be to define "additional" action on the basis of the past emission performance – either nationally or sectorally – thus a sort of historical baseline against which future action could be assessed. The challenge of additionality may not be a bottle neck to the linking process as long as a national strategy with an "acceptable" level of mitigation is proposed by developing countries.[16] The question then becomes how to share the initial cost of mitigation action rather to identify whether which proposed actions are additional to what would have happened otherwise.

It should be born in mind that while external financial support required for the implementation of actions concerns public finance in the short term, the dynamics of support is expected to change over time, as policy reforms resulting from such actions should trigger a shift of private finance towards GHG-reducing practices. Support could in fact leverage domestic and/or foreign private finance by enabling the implementation of policies needed to trigger investment in low-GHG technologies and practices, without requiring additional support once these policies are in place.

[14] Mexico is undertaking a major analysis of the economic impacts of climate change on Mexico, following the approach of the Stern Review released in 2006. This study, which was due for completion in 2008, will predict aggregate physical and economic costs of climate change including adaptation and mitigation, rather than disaggregate costs of specific actions. The study is sponsored by the British Government and the Inter-American Development (World Bank, 2008).

[15] Autonomous action could be supported by capacity buildings and targeted international loan schemes.

[16] What is acceptable in terms of mitigation goals at national level might require review and acceptance internationally or by contributor countries, for example, by comparison to any agreed global mitigation goals.

3.2 From support to actions

It is also possible to start with support for developing countries and ask the question of how to link it to additional mitigation action in developing countries. With respect to a non-market or public assistance mechanism, the key design challenge will be to determine who and what activities are eligible for assistance and then to disburse the support in a manner that is cost-effective, such that it maximises results across agreed objectives for a given investment. If economic efficiency or cost-effectiveness were the only consideration, a reverse auction[17] approach could be suggested to address the question of how to disperse limited funds to priority, high-return projects (Greenhalgh et al. 2007). However, further analysis is needed on the likely effectiveness and feasibility of implementing such an approach in this context. In addition, other criteria such as fairness, accountability and transparency in decision-making may need to be taken into account in the management of any new public funds made available for mitigation support.

The question then is how to disburse the necessarily limited public funding for support in such a way that mitigation goals are met along with other performance objectives. Typically the management of public environmental funds is guided by an agreed set of rules or "operational guidance" principles that guide decision-making (OECD, 2006). It is likely that Parties to the UNFCCC would adopt their own principles for the management of any fund available for mitigation support.

3.2.1 Eligibility criteria and spending priorities for public support

Within the operational guidance for environmental funds, the central elements are typically rules about what sort of activity (or recipient) is eligible for funding and what the priorities for spending are. Karousakis and Corfee-Morlot (2007) commented on the challenge of developing and administering fund-based mechanisms to support climate change in the forestry area and similar principles apply here. They said:

> *In the case of a fund, it is likely that a number of developing countries will wish to benefit from such funds, whether they are for capacity building or for mitigation purposes, and that the financial resources available will not be able to meet all the needs. Without a clear spending strategy and eligibility and selection criteria based on cost-effective solutions to environmental priorities, the allocation of financial resources becomes sub-optimal and wasteful. This is also raised in the OECD Council Recommendation on Good Practices for Public Environment Expenditure Management, which highlights the need for expenditure programmes, including the appraisal, scoring, ranking and selection of projects (OECD, 2006).[18] Such criteria and priorities also enhance transparency and accountability in the operation of environmental funds, which are essential for avoiding ad-hoc political influence and mismanagement of public funds (e.g., safeguarding against corruption and fraud, and identifying and eliminating conflicts of interest).*

There may also be a number of examples already available in the international arena, from which guidance might be drawn. This includes for example recent OECD Development Assistance Committee (DAC) guidance on "strategic environmental assessment" or their forthcoming guidance on climate change adaptation (OECD 2005; OECD forthcoming 2009). Both these documents aim to increase the

[17] Reverse auctioning refers to a process where a given amount of funds is disbursed through a bidding exchange, in this case it would be where recipients of mitigation support would compete to deliver the "best" package of results in terms of GHG reductions in a given period per unit of mitigation support available.

[18] Although the OECD Council Recommendation on Good Practices for Public Environment Expenditure Management is focused on national funds, lessons can be drawn for the management of international funds.

environmental effectiveness and mainstream environmental or climate change (adaptation) concerns systematically into development assistance practice and national development planning, in line with the Principles of the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action.[19] These include, in particular, a focus on developing country ownership; alignment of donor support to partner countries' national development strategies, institutions and procedures; and harmonisation of practices by donors to minimise transaction costs for developing countries.

There are also already several specific multilateral funds that target climate change, all of which have formal rules covering eligibility and guidance for prioritisation of spending. These include the Global Environmental Facility, the Climate Technology Fund (which is part of the climate investment fund (CIF) and others (see Annexes I & II).

In looking across these examples, a key conclusion is that there is no "standard" approach or clear guidance to date on how to define "good practice" in the area of international financing as it pertains to GHG mitigation. However it may be possible to draw on practical examples in related areas to suggest a number of common elements that could be further developed into an agreed listing of eligibility criteria. Minimum criteria could include:

- Existence of a national GHG mitigation strategy, or one covering a critical mass of a country's total emissions.
- Internationally harmonised national GHG inventory data and documentation of past emission trends from which changes in future GHG emissions can be assessed
- Demonstration of potential of the national strategy to reduce emissions over the medium and long-term and consistency with global emission goals.
- Consistency of the mitigation strategy with relevant national, sub-national and/or infrastructure development plans.
- Ability to leverage private finance toward GHG friendly investments over time.

3.2.2 Challenges

The challenge for a linking process that begins with consideration of mitigation support is two-fold: first in estimating future support likely to be available (or even in accurately measuring the level of support currently available); second is to relate support to action on the ground and to assess the results in the context of GHG mitigation. Any linking exercise is likely to fail without sound ex post tracking on the ground where actions are being taken.

On the first issue of estimating how much support is likely to be available, there is some experience on which to draw to estimate at least the current level of support. It is possible today to estimate public financial support that is already flowing from the North to the South and to establish a more comprehensive system to monitor these flows from existing statistical systems and information sources. Although it is difficult to obtain a complete overview, there is sufficient information from various sources to indicate that large amounts of public finance – on the order of several billion USD per year – are currently available for mitigation-specific (or reporting) support purposes. This public support has been channelled through the Global Environmental Facility (GEF), or other multilateral or bilateral channels

[19] See: www.oecd.org/dac/effectiveness and www.accrahlf.net.

(Table 1). Establishing such a system would be a useful starting point and could be extended to include any scaling up of future flows of public finance.

It may also be possible to extend such a monitoring system over time to include estimates of private finance that flowing to mitigation-relevant activity. Of course in the aggregate, mitigation-specific public finance is dwarfed by mitigation-relevant finance[20] and by private finance (including the CDM and other carbon market finance which directly targets mitigation), thus indicating the importance of using public finance to leverage private investment towards low emission options (Table 1, also Figure 1).

On the second issue of the links between public support mechanisms and actions, there is also some experience from which it is possible to examine past performance of existing mitigation support. For example, the GEF investments in climate change projects are fairly well documented including assessment of key results; such examples could provide insights into how well a non-market public financial mechanism performs in terms of delivering change that leads to cost-effective, additional GHG mitigation and/or dynamic efficiency gains over time (see Box 3). Overall GEF programmes also demonstrate that it is possible to monitor the performance, ex post, of this type of mitigation support. The assessments also demonstrate the possibility to use mitigation support to transform the market, and leverage private sector investments. As such the GEF approach provides an example for linking support to mitigation which could be used as a point of reference in future decisions.

[20] 'Mitigation-relevant support', as defined here, may have a large (positive or negative) influence on GHG emission trends. This is financing for development, specifically in the key sectors that will shape future GHG emissions in developing countries. Relevant financing includes, for example, potentially large portions of bilateral and multilateral official development assistance (ODA) in energy and/or water infrastructure, waste management, agricultural or forestry sector development. It also includes collaborative research and development (R&D) initiatives that may not target or include consideration of climate change per se (e.g. in the energy and agricultural sectors). Finally, private sector flows, in the form of foreign direct and domestic investment, are shaping the pace and profile of future developing country emissions, and thus mitigation potential. It is important to note that these financing pathways may have either positive or negative effects on the levels of greenhouse gas emissions in any individual national context and are significantly larger than mitigation-specific support flows.

Table 1. Current estimates of mitigation specific support and MRV features by source

Type of Support	Amount	Metric	Reporting Entity	Reporting instrument & frequency	Review
National programmes & funding for (art 4.3 & 4.5)	5 billion USD in 2003[a]	Monetary & qualitative	Annex II countries	National Communications under the UNFCCC (4 comms to date: 94-95, 97-98, 2001-02, 2006	UNFCCC reviews of nat. comms.
GEF	Average of 220 million USD/year between 2003 and 2006 (GEF-3)	monetary	GEF	GEF annual reports; GEF reports to the COP every 4 years	UNFCCC COP review every 4 years (4th review 2006)
Climate-specific bilateral ODA	2.8 billion USD in 2007[b]	monetary	OECD DAC – climate change Rio marker	OECD CRS database annual reporting (soon to be institutionalised)	DAC-CRS statistical review
MDBs climate-specific funding	Est of 4 billion USD annual average 2006-2007[c]	monetary	MDBs	None- but consolidated database, work in progress Annual reports, individual MDBs have some information	No multilateral review
Capacity building support	Non monetary	Qualitative and quantitative	Parties, donors and recipients, UNFCCC Secretariat	UNFCCC Capacity building review -- every 4 years	SBI review every 4 years
Technology support	Non monetary	Qualitative and quantitative	UNFCCC (EGTT in development)	TT: Project database EGTT indicators in development – not clear whether / how these would be integrated into national reporting	UNFCCC SBI
CDM investments	26.5 billion USD in 2006[c]	monetary	UNFCCC	UNFCCC and World Bank estimates	No review
CDM Value of CERs	1.6 to 2.6 billion USD[d]	monetary	UNEP-RISOE for volume of CERs and number of projects	World Bank value estimates (UNEP-RISOE continuous monitoring of projects and CERs)	No review

a-Includes bilateral contributions and contributions to GEF, excludes contributions to multilateral banks and international institutions, thus double counting amounts reported for GEF and for bilateral funding below.
b-Germany, Luxembourg, Netherlands and Norway not reporting for this specific year and only partial reporting in the US. See OECD – CRS, 2008, Aid commitments targeted at the objectives of the Rio Conventions, www.oecd.org/dac/stats/idsonline
c- Estimates from the World Bank (2006) Clean Energy and Development: Towards an Investment Framework, available from http://siteresources.worldbank.org/DEVCOMMINT/Documentation/20890696/DC2006-0002(E)-CleanEnergy.pdf. This estimate excludes investment from the European Investment Bank because it is largely in Europe or other Annex I countries and the estimate would not be comparable to other values in the table. The estimate is based on the World Bank consultations with other MDB partners.
d – Review of the annual reports does not seem to allow cross-checking with these estimates. It is important to note that financial review of MDB annual reports would be undertaken under normal audit procedures for public institutions.
e- Estimated value of annual emission reductions for projects that entered the pipeline in 2006 (UNFCCC 2007). This estimate is made using an average price of USD 10.70 per tCO2 eq. as reported by Capoor and Ambrosi (2007)

Box 3. A GEF Example: Link between Mitigation Support and Actions

The Global Environment Facility (GEF) is the main financial mechanism under the UNFCCC. It approaches climate change mitigation investments through a range of specific programme areas including: removing barriers to energy efficiency; promoting and improving the use of renewable energy; reducing costs of low GHG emitting energy; supporting sustainable transportation; and a catch-all of activity that includes creating the proper policy and institutional environment, capacity building, loans, technology transfers and risk guarantee mechanisms. The GEF's portfolio also shows the total investment in climate change by different sectors and sub-sectoral mitigation end-points, such as energy efficiency, renewable energy, and sustainable transport (GEF 2008b).

GEF climate mitigation programmes are all subject to regular evaluations which identify, track results and help to flag whether or not they are replicable or other locations. However, despite regular evaluation (i.e. every four years), the programmes are not dependent on a results-based approach and at the project level (rather than the broader programme level), and there is still no systematic evaluation and reporting to assess project-by-project performance (GEF, 2008).

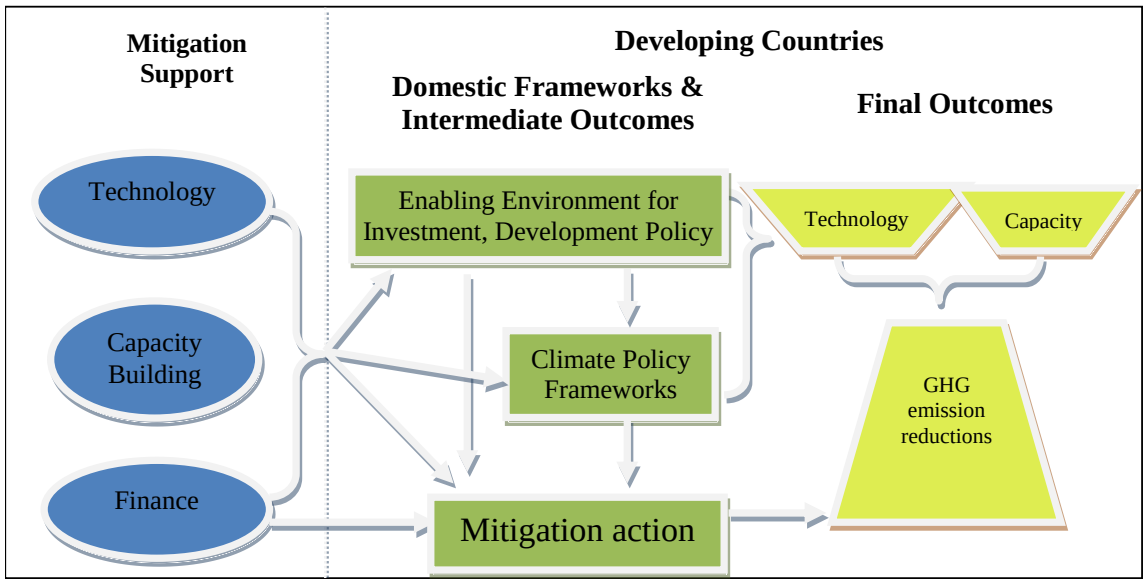
A number of examples can be drawn from the energy efficiency programme area which has led to an undeniable change in energy use. For example, from 1993 to 2000, the GEF implemented a demand-side management plan in Thailand, with an overall budget of USD 189 million. The money was co-financed through a GEF grant of USD 9.5 million, a loan from the Australian Government of USD 5.4 million, and a loan of up to USD 25 million from the Overseas Economic Cooperation Fund of Japan, and finally funds from the state-owned public electricity utility, the Electricity Generating Authority of Thailand. The programme resulted in the installation of approximately 1.5 million CFLs in Thailand. CFLs consume on 8 times less than the incandescent bulbs that were replaced and the programme contributed to a drop in CFL price of 30 to 35% during the same period. The Thai DSM project also demonstrated the importance of institutional changes where the market share of CFLs grew from 40 to 100% and led to the creation of a demand-side management office in Thailand within the national utility. In turn, this new institution was able to negotiate voluntary agreements with the private sector, and promote energy efficiency appliances through awareness campaigns and labelling programmes (see Buchner and de T'Serclaes, forthcoming). Overall, the post implementation report of the GEF estimates that the programme led to energy savings of 3 140 GWh per year, a peak reduction of 566 MW, and an estimated GHG emission reduction of 2.32 Mt/CO_2-eq per year.

Other GEF mitigation programmes more specifically target reduction in the price of low-emitting GHG energy technologies. In such programmes the GEF provides grant financing to reduce the costs of highly efficient technologies. This strategy builds on the idea that providing developing countries with early experience in new, emerging, low-GHG emitting energy generating technologies in niche applications will contribute to the expansion of the demand for these technologies, which in turn will increase production and reduce costs. The Fuel Cell Bus (FCB) project in China is one of the best examples in this part of the GEF programme. The project Demonstration of Fuel Cell Bus Commercialization in China (GEF Grant: $5.77m) is part of the November 2005 GEF Work Program. It intends to support the commercial viability and replicability of the FCB. By 2010, it is planned that production of FCBs reaches a number of 30 per year, a number that is expected to stimulate the production of the technology by local Chinese companies. Daimler Chrysler (China) is the central corporate partner in the project and is gaining experience with FCB production early in its production cycle (GEF, 2006; UNDP/GEF, 2005).

Source: GEF/World Bank, 2006, GEF, 2006, UNDP/GEF, 2005

In terms of measurement, reporting and verification (MRV) of mitigation support, there is a need to develop a coherent system for tracking origins, flows and end-points of such support. At a minimum, for a linking mechanism to be transparent, such a framework would need to consider first mitigation support going to developing countries as a group or to a particular country individually. Secondly this would result from changes in interim and final outputs that affect GHG emissions over time (Figure 1). In the area of intermediate outcomes, changes in domestic policies may eventually lead to more favourable conditions for investment in low-carbon outcomes (i.e. in clean technology). Depending on the status of the local enabling environment for investment, there may be changes required in basic legal frameworks (i.e. protection of intellectual property rights or the rule of law), development of research clusters drawing on public and private resources, or other institutional changes that create local conditions that are favourable to private investment generally. Beyond this of course specific climate change, energy or environmental policy reforms can have a direct effect on the attractiveness of investments in low-carbon versus high-carbon alternatives. These include a wide range of options, as noted above, ranging from regulations targeting energy efficiency in consumer products or buildings to cross-cutting instruments that explicitly put a price on carbon emissions (e.g. through CO_2 tax or establishment of a GHG emission trading system). Final outcomes may include changes in GHG emissions (presumably in aggregate terms) or other proxies for emission performance, such as increased institutional capacity, change in carbon intensity of the economy, or research, development and demonstration of climate-friendly technologies.

Figure 1. Support for Developing Country Mitigation Action



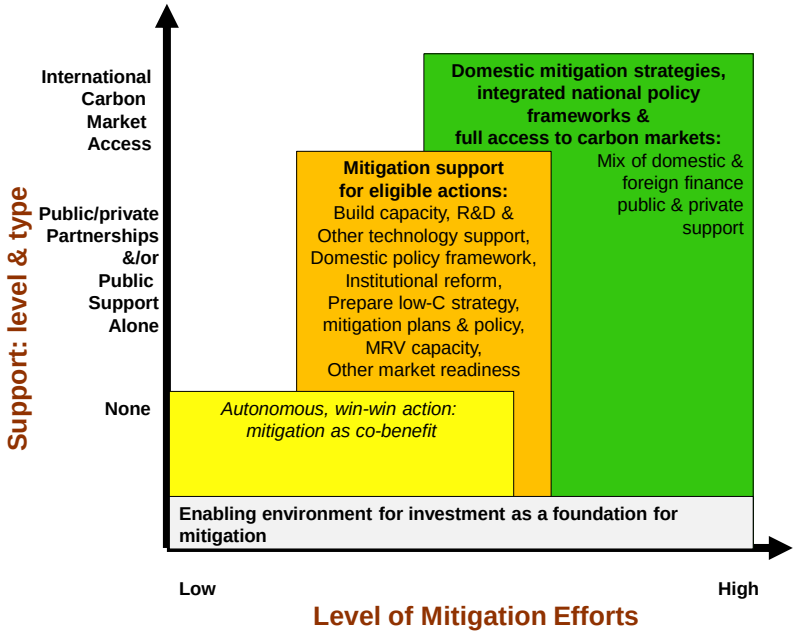
This section has considered how to start from support, or the inputs side of the equation, to estimate the specific or aggregate effects on emissions over time. This presupposes some important analysis and work to define and assess: (i) what falls within the scope of support and carefully tracking flows of support from the contributor or investor to the recipient(s); (ii) the effects of the support on GHG emissions at project, programme, sectoral or country scale. An immediate challenge is that emphasis on measurable GHG mitigation could overlook important intermediate outcomes such as changes in domestic policy that will generate ongoing sources of domestic and foreign private investment in low-carbon technologies and practices.

4. Discussion – towards a linking framework

The foregoing highlights key issues to be considered in linking mitigation actions and support with a view to outlining a linking framework. This section explores what might be the goals of such a mechanism, how it might function and how performance or "success" could be assessed. Presumably the aim of such a linking framework would be to better match the available mitigation support in developed countries to the mitigation needs and priorities advanced by developing countries within the broader context of development planning across different scales. However the overarching goal would also need to be to contribute to Article 2 of the UN Framework Convention on Climate Change and in particular to enhance measurable mitigation action in a post-2012 agreement. In the medium- to long-term, effective GHG mitigation requires the integration or mainstreaming of mitigation into domestic policy frameworks across all major sectors of national economies and all major countries, developed and developing. Ideally, such a framework for "linking" would facilitate greater (and possibly more cost-effective) mitigation than would occur otherwise. A number of other objectives might also be inferred from the language of Article 2, including that such a mechanism is consistent with and contributes to sustainable development or, from a developing country point of view, to facilitate the support available for mitigation action.

Some Parties have also elaborated further on possible objectives of a linking mechanism (EC, 2009a; EC, 2009b). The EC has called for a "new facilitative mechanism for mitigation support" which matches proposed actions with appropriate bilateral and multilateral support mechanisms, based on a technical assessment (EC, 2009a).[21] The EC also suggests that the mitigation supported through such a mechanism would be additional to that achieved through existing carbon market mechanisms.

Figure 2. Framework for a Linking Mechanism



Source: Authors

[21] See paragraph 29 for the details of EC's proposal.

Because environmental effectiveness in a post-2012 agreement requires GHG mitigation to occur in both developed and developing countries, it would be important that a linking mechanism contributes to incentivising mitigation that would be additional to what would occur otherwise. Such a mechanism could be designed to integrate consideration of climate change into development strategies (i.e. through low-carbon development strategies) with the provision of support and, eventually, to enable emitting entities in the country to access international carbon finance. Currently mitigation action through the CDM provides offsets from developing country projects for developed country emissions. Such an offset mechanism can be an important bridging mechanism to lower the cost of mitigation and to incentivise learning about mitigation opportunities in countries not taking on quantitative emission targets. However, it is not designed to deliver net emission reductions in a global context.[22] The environmental imperative of the coming decades will be to limit global emissions. As a result, there is a need to broaden the market mechanisms through which large, rapidly developing countries can access the carbon market. Building the capacity to access markets through provided support could therefore be an important target of any possible future linking mechanism (see Figure 2).

The discussion above suggests that the design of a successful and effective linking framework might aim to achieve a number of specific goals. In particular, criteria for success might include:

- **GHG performance:** Are the NAMAs covered in a linking framework helping to deliver national GHG reductions in the medium-term to long-term, consistent with global mitigation goals and needs?

- **Additionality:** Are the NAMAs covered under the framework going to bring about low-carbon and low-GHG outcomes beyond what is already occurring

- **Identifying support needs:** Are the NAMAs designed to identify the scale and nature of the mitigation support required for the implementation (e.g. technology or capacity building assistance)? Are they integrated with national development policies and plans in the host countries?

- **Cost-effectiveness:** Is the linking framework designed to target support to NAMAs in a manner that delivers least-cost mitigation and maximises the performance of necessarily limited public support? Do they enable or enhance access to international carbon markets?

- **Dynamic efficiency:** Is the linking framework designed to steer financial and other forms of support to where it is needed most from an environmental and economic perspective over time, i.e. where emissions are growing fastest, where there is potential to incentivise long-term change over time that will stimulate investment in low-carbon innovation? How to link support to further development of developing countries' strategies and systems to ensure ability to respond to the changes in the international framework.[23]

[22] In other words, the emission reductions are instead of rather than additional to the reductions required in developed countries.

[23] The 'compact approach' recommended by the UK government would be based around: 1) an international compact; agreement to the balance of resources between adaptation and mitigation, and the financial needs of different nations; 2) a national compact: national plans drawn up by each country, reflecting their own priorities, reviewed and reported on internationally to ensure every country is both ambitious and credible; and 3) a delivery compact: money should flow directly into central budgets, but only with the assurance of robust governance and transparency. For more details, see the speech delivered by Ed Miliband, Energy and Climate Change Secretary of the UK (UK, 2009).

- **Strengthening domestic capacity and enabling environments for low-carbon investment:** What are the implementation requirements of the proposed NAMAs at the domestic level and how can mitigation support be designed to deliver on these? How will support improve the feasibility of full implementation?

- **Procedural efficiency and equity:** Who decides what NAMAs are considered for support and/or what amount of support is to be provided for a given action? And how are these decisions made?

On the side of mitigation action or NAMAs in developing countries, there is currently no systematic monitoring system other than national communications to collect information on what actions countries are taking or planning to take with an expected effect on GHG emissions. Although some of the relevant information may be found in national communications, there is no standard guidance on how to report mitigation measures nor are national communications frequent enough to provide consistent (time-series) data and information. Building on current guidelines, a linking framework suggests further consideration should be given to improving the national reporting system (i.e. through the national communications tool), for example, to allow for a more comprehensive reporting of mitigation-relevant actions and support, to broaden the number of countries reporting in a harmonised manner and the frequency of reporting.

Aside from a more comprehensive listing of measures, it would also be desirable to have an indication of performance, i.e. ex ante, to estimate expected performance, and ideally ex post, as a means to verify performance once the measures have been put in place (Michaelis, 1998). Developing ex ante performance estimates may require modelling capacity which may only be in place in the largest of developing countries. Future emissions can be estimated using simple trend analysis, on the basis of past emissions, or at sub-national scale (i.e. sector or the project level). Ex post performance assessment may be complex and is only be practical in the aggregate, when looking across packages or clusters of measures. At a minimum, ex post historical assessment should occur at national level through the reporting of comprehensive, harmonised annual national inventories such as is currently required of Annex I Parties under the Kyoto Protocol (e.g. using IPCC inventory methods and a common reporting format).

Although there are few examples of quantitative estimation of emission reductions from planned actions in developing countries, it is clearly possible to do so. The Mexico example, referred to above, demonstrates this point. Also all Annex I countries are required to estimate the GHG mitigation effects of mitigation policies and measures ex ante in the form of aggregate projections of emissions with and without these "added" mitigation measures. This allows aggregate estimates of performance over time to be developed, to better understand and track progress in terms of mitigating emissions under the Kyoto Protocol and the Convention. As noted above, in terms of verification of performance, ex post estimates are available in the aggregate through the national GHG emission inventories that Annex I countries submit on an annual basis.[24] This example, taken from the MRV framework for Annex I countries, demonstrates at least one model for how tracking of the performance of NAMAs might be advanced.

If one of the aims of a linking mechanism is cost-effectiveness, it would also be necessary to estimate the cost of undertaking NAMAs. Presumably beyond the total implementation cost of the measure there would be some sub-set of cost which would be covered through external mitigation support, with the difference between total implementation cost and external support being the share that would be covered internally from domestic public or private finance. The Mexico example may suggest that some cost estimation is possible across a package of measures.

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[24] The adequacy of national inventories for verification of performance needs to be examined with a view to further improvements of such inventories.

On the side of mitigation support, some monitoring capacity and systems of reporting already exist under the Convention, particularly through the reporting that is occurring within Annex I Party national communications. However the current reporting of information on mitigation support is unstructured and thus inconsistent and incomplete and significantly more work would be required to strengthen measurability and reporting in this area. A number of information sources exist outside of the Convention process, some of which are harmonised national statistical systems (e.g. GEF, Creditor Reporting System Development Assistance Committee (CRS-DAC) data) and these could be further developed and brought into a coherent framework in a post-2012 regime. However considerable work would be required to harmonise data sets and to ensure that all relevant information is reported in such a way that information across sources can be compared and collated.

Financial assistance is most tractable in monetary terms and often such financial support is channelled through capacity or technology assistance programmes. However there is also information about other forms of mitigation support e.g. such as expert exchange programmes, or in-kind technology cooperation (See Table 1). Specific guidance on how to report qualitatively on these different (non-financial) forms of support might be needed to enhance transparency and understanding about what is occurring and how significant it is.

Reporting on financial mitigation support can be disaggregated at sectoral level, which may assist with the linking of such support to mitigation performance assessment. For instance, bilateral financial mitigation support is reported by Annex II parties in their fourth National Communications to UNFCCC and, in parallel, reported to the OECD through the CRS (OECD 2008). Both sources provide information on the sector endpoints of bilateral mitigation assistance (UNFCCC 2007). The Global Environment Facility's portfolio shows the total investment in climate change by different sectors and sub-sectoral mitigation end-points, such as energy efficiency, renewable energy, and sustainable transport (GEF 2008b). This financial support would also ideally be further disaggregated by source of financial support and specific sectors in each country destination.[25] Currently there is no systematic verification of the amounts or usage of public mitigation support (GEF 2008a). On the bilateral side, this information is largely self-reported and accuracy will vary depending on the quality of original data collection and internal procedures (Hicks et al. 2008). Multilateral sources of mitigation support are less systematically reported and would need to be brought into a harmonised framework to complete the overview of what is available.

Data gaps and inconsistencies in the UNFCCC reporting system, are another practical challenge as the level of disaggregation that Parties report regarding their financial contributions and support for technology and endogenous capacities of developing countries vary. Due to the cross-cutting nature of capacity building, reports on capacity building also tend to cover a broader range of activities than climate change (UNFCCC 2004; UNFCCC, 2008; UNFCCC, 2008a).

[25] It may be important to note that currently, it is not possible to link specific Annex II contributions to climate change directly, as all Annex II contributions to the GEF are aggregate contributions for all focal areas; only a subsequent decision by GEF Council allocates funding to the various focal areas. This institutional structure thus decouples the donor from the climate change or other focal area end-point for those contributions.

5. Concluding remarks

A successful linking framework could contribute to achieving more ambitious GHG mitigation in a post-2012 agreement by incentivising mitigation that would be additional to what would occur otherwise. A well-designed linking framework could integrate consideration of climate change into development planning at the domestic level (i.e. through mitigation or low-carbon development strategies) and, if practical over time, help to enable rapidly industrialising countries (and emitting entities within these) to better access international carbon markets.

To this end, there is a need to agree on the broad lines of a linking framework, starting with its goals and rules for participation, as well as operational guidance. The foregoing suggests that the goals for such a framework might be: to ensure the GHG performance of NAMAs; to identify support needs; to target support to NAMAs in a cost-effective manner; to steer financial and other forms of support to where it is needed most from an environmental and economic perspective over time; to strengthen domestic capacity and enabling environments for low-carbon investments; and to ensure procedural efficiency and equity in the provision of support.

In addition, public funding will necessarily be limited and require agreement upon guidance for disbursement. A reverse auction approach could be an option to ensure economic efficiency and cost-effectiveness, although other criteria for performance may also be relevant (e.g. feasibility, accountability, equity). A brief review of past experience suggests that there is no "standard" approach or clear guidance to date on how to define "good practice" in the area of international financing as it pertains to GHG mitigation. Yet eligibility criteria could include: i) existence of a national GHG mitigation strategy; ii) internationally harmonised national GHG inventories (possibly for specified years); iii) demonstration of mitigation potentials and of how the national strategy taps these potentials; and iv) ability to leverage private finance toward GHG friendly investments over time.

In addition, to develop a successful linking framework suggests that both actions and support would need to be measurable, reportable and verifiable (MRV). Building on existing systems for either support or actions, a framework for MRV based on actual, possible or planned mitigation actions in developing countries as well as on different sources and types of mitigation support could be a good starting point for further development of a linking framework. On this issue, it could be useful for COP-15 to agree to advance MRV of both elements individually to enable better understanding of possible (or actual) linking between action in developing countries and support from developed countries.

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Glossary

BAP	Bali Action Plan
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CFL	Compact Fluorescent Lamps
COP	Conference of Parties
CRS	Creditor Reporting System
GHG	Greenhouse Gas
DFID	Department for International Development
DNAs	Designated National Authorities
EGTT	Expert Group on Technology Transfer
EU	European Union
FCB	Fuel Cell Bus
IBRD	International Bank for Reconstruction and Development
IPCC	International Panel on Climate Change
CHP	Combined Heat and Power
CIF	Climate Investment Fund
GEF	Global Environmental Fund
GHG	Greenhouse Gas
GTZ	German Agency for Technical Cooperation
MDB	Multilateral Development Bank
MRV	Measurable, Reportable and Verifiable
NAMAs	Nationally Appropriate Mitigation Actions
ODA	Official Development Assistance
OECD	Organisation for Economic and Development Cooperation
OECD-DAC	OECD Development Assistance Committee
OP5	Operation Program-5
REDD	Reducing Emissions from Deforestation and Degradation
SBI	Subsidiary Body on Implementation
SD-PAMs	Sustainable Development Policies and Measures
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value Added Tax

Annex I: Climate Change Funds, Development Assistance in the Environmental Area: Examples of Principles, Eligibility & Disbursement Criteria[26]

Clean Technology Fund

Source: Excerpted from World Bank, 2008. "Clean Technology Guidelines for Investment Plans", 1 December 2008.
http://siteresources.worldbank.org/INTCC/Resources/GuidelinesInvestmentPlansDec1_08.pdf
Italics added by authors to indicate disbursement criteria

Principles

4. The proposed guidelines for the preparation of CTF Investment Plans take into account the principles agreed by representatives of governments participating in the final design meeting on the Climate Investment Funds (Potsdam, May 2008), and approved by the World Bank's Board at the time of its consideration and approval of the establishment of the CIF in July 2008. These principles are:

(a) The core mission of the MDBs is sustainable economic growth and poverty reduction. Climate change mitigation and adaptation considerations need to be integrated into the sustainable development process as addressing these issues contributes to the basic human needs of the poorest who are disproportionately impacted by the negative effects of climate change;
(b) Multilateral development banks can and should play a role in ensuring access of developing countries to adequate financial resources and appropriate technology for climate actions;
(c) The MDBs should mobilize new and additional financing for adaptation and mitigation programs to address climate change that are country-led and designed to support sustainable development and poverty reduction. Activities financed by the fund should be based on a country-led approach and should be integrated into country-owned development strategies, consistent with the Paris Declaration;
(d) Achieving sustainable outcomes will require sustaining the total wealth -- produced, human, institutional and natural -- on which development depends;
(e) The UN is the appropriate body for broad policy setting on climate change, and the MDBs should not preempt the results of climate change negotiations. Actions to address climate change should be guided by the principles of the UNFCCC;
(f) The MDBs, in collaboration with other development partners, should assist developing countries to build country-level knowledge, capacity and development project experience;
(g) It is appropriate for the MDBs to build partnerships with each other and a wide range of institutions and stakeholders on climate change, including the private sector. In doing so, each MDB should remain accountable to its governing body;
(h) Complementarities between activities foreseen for the CTF and activities of the GEF and the UN, especially at the country level, should be identified, and effective cooperation established, to maximize synergies and avoid overlap; and,
(i) The CTF should provide for transparency and openness in its governance and financing operations.

Operational Procedures for the Preparation of CTF Investment Plans

5. The following procedures will apply to the preparation of CTF Investment Plans.
6. The country's designated focal point for the CTF should send a request to the World Bank Group and/or

[26] This section is adapted from Karousakis and Corfee-Morlot (2007), Annex II.

relevant RDB(s) for a joint mission to initiate the preparation of the CTF investment plan.[27]
7. The CTF investment plan is the "business plan" of the MDBs, developed under the leadership of the government, to assist a county with CTF co-financing in implementing its national development strategies or programs that include low carbon objectives. The investment plan is agreed between, and owned by, the Government and the MDBs. It should be a clearly articulated multi-year proposal that would describe the proposed uses of CTF resources, identifying the "slice(s)" of the country's existing strategies and plans that could be co-financed by the CTF.[28]
8. In some cases, an alternative to taking a nationally-based approach to investment plans might present the option of focusing on a particular sub-national area, such as state, province or city, or a regional or multi-country approach. A group of countries may adopt a regional or multi-country approach through a single, common investment plan. In all such cases, endorsement by the central government would be required.
9. Country access to the CTF will be based on: (a) ODA-eligibility (according to OECD/DAC guidelines) and (b) an active MDB country program.[29] When an eligible country (or group of countries) expresses interest in accessing CTF financing, the MDBs' country operations teams will jointly assess the potential for investments in the country (or countries, in the case of regional approaches) to meet *CTF criteria for significant greenhouse gas (GHG) emissions reductions, demonstration potential at scale, development impact and implementation potential, taking into account their country sector dialogue.* The starting point for these assessments for many countries will be existing national strategies, policies and laws, such as for energy efficiency, energy security, renewable energy development, climate change, and/or sector development.
10. If the MDBs' assessment confirms a potential fit with CTF investment criteria, a mission will be arranged, with the Government's consent, to include the World Bank, IFC and relevant RDB public and private sector operations, keeping bilateral and other multilateral development agencies informed.

The Global Environmental Facility

As the financial mechanism for the United Nations Framework Convention on Climate Change (UNFCCC), the GEF's climate change objectives are based on the guidance of the UNFCCC. As the financial mechanism for the UNFCCC, the GEF provides new and additional grant and concessional funding to developing countries and countries with economies in transition to achieve global environmental benefits in climate change. The GEF supports the preparation of the national communications of developing countries to the UNFCCC. The GEF operational strategy for climate change placed initial emphasis on four "Operational Programs" that address long-term program priorities to mitigate climate change: the removal of barriers to energy conservation and energy efficiency; the promotion of renewable energy; the reduction of costs for low GHG technology; and promotion of sustainable transport. The GEF has supported limited activities to sequester carbon, but the goal of sequestering terrestrial carbon is largely a secondary benefit of projects in the biodiversity or land degradation focal areas. Finally the GEF operates a number of special funds that have been created under UNFCCC.

GEF Strategic Approach to Enhancing Capacity Building

The GEF approved a Strategic Approach to Enhancing Capacity Building in November 2003. The approach lays out a multilevel plan for capacity building for global commons and outlines the development of:

[27] The World Bank wrote to the Ministries of Finance for all IBRD/IDA member countries in July/August 2008 seeking their identification of a national focal point

[28] Investment Plans may be classified into three categories: (i) public and private sector operations; (ii) public sector operations only; or (iii) private sector operations only.

[29] An "active" program is where an MDB has a lending program and/or an on-going policy dialogue with the country.

- Targets and indicators for measuring results and effects of capacity-building activities.
- Operational modalities and project criteria for implementing the strategic approach.
- Proposals for a technical support programme.
- GEF support for capacity building is to be developed based on four "pathways":
  - A self-assessment of capacity needs by countries.
  - Strengthening the capacity-building elements in GEF projects.
  - Development of targeted capacity-building projects.
  - Country-specific programmes for addressing critical capacity building needs in least developed countries and small island developing states.

For example, a National Capacity Needs Self Assessment (NCSA) program is operational and guidelines have been prepared to assist countries in preparing their NCSAs. Under an NCSA, funding is provided to assist countries for preparing self assessments of their capacity needs and priorities to manage global environmental issues. Once countries identify gaps in capacity building, they are encouraged to develop a plan of action for overcoming the gaps. NCSAs are intended to be entirely country driven, undertaken in accordance with country priorities and situations.

Three dimensions are critically important in deciding how to allocate resources for capacity building for global environmental benefits: How available funds should be distributed among countries, focal areas and programme priorities within a global focal area.

GEF Performance-Based Resource Allocation Framework

The Performance-Based Resource Allocation Framework (RAF) is a new system adopted by the GEF Council in September 2005 to allocate GEF resources to recipient countries based on global environmental priorities and country-level performance. It is an attempt to move in the direction of more targeted resource allocation. The GEF states: "*The RAF allocates resources to countries based on each country's potential to generate global environmental benefits and its capacity, policies and practices to successfully implement GEF projects. The RAF builds on GEF's existing country-driven approach and partnerships with Implementing and Executing Agencies, and provides countries with increased predictability in the allocation of GEF funds.*"[30]

The RAF is initially limited to biodiversity and climate change projects. The GBI for climate change seeks to measure the potential global benefits that can be realized from climate change mitigation activities in a country.[31] The approach reflects the objectives of the GEF climate change operational programs to address long-term priorities to mitigate climate change. With respect to climate change, the GEF Benefits Index (GBI_{CC}) provides a relative ranking of countries for meeting the climate change objectives of the GEF (which are to contribute to the overall objective of the UNFCCC) under the RAF. The index is constructed from two indicators: (i) baseline GHG emissions for the year 2000 in tons of carbon equivalent; and (ii) Carbon Intensity Adjustment Factor computed as the ratio of the carbon intensity in 1990 to the carbon intensity in 2000:

$$GBI_{CC} = \text{Baseline GHG Emissions} * (\text{Carbon Intensity}_{1990} / \text{Carbon Intensity}_{2000})$$

[30] See: GEF (2009) Operational Policies - RAF at a Glance: GEF's New Framework for Allocating Resources. http://www.gefweb.org/Operational%5FPolicies/raf/ [accessed 12 February 2009].

[31] See GEF (2009) Operational Policies - GEF Benefits Index. http://www.gefweb.org/Operational_Policies/raf/GBI.html [accessed 12 February 2009].

Baseline GHG emission levels provides a broad measure of the scale of the mitigation potential of a country, while avoiding perverse incentives that results from using current level emissions. To ensure widest coverage among countries, the year 2000 is used as the base year. Including baseline GHG emission levels in the GBI results in a larger GEF Benefit Index for larger emitters. There are two reasons for using GHG emission levels. First, in general, countries with larger emissions have lower abatement costs, which increase less rapidly with abatement than those in countries with smaller emissions. Second, projects are likely to have greater demonstration and learning effects in high emitting countries than in countries with smaller levels of emissions. 7. The carbon intensity of a country measures the tons of carbon equivalent emitted by a country per unit of economic activity (GDP). It changes over time because of (i) increased carbon efficiency brought about by changes in fuels or technology or economic growth; and (ii) structural shifts in the economy away from carbon intensive activities. There are two reasons for using change in carbon intensity. First, reducing emissions will be less costly in countries that have already demonstrated willingness and/or ability to reduce carbon intensity. Second, it rewards countries that have reduced their carbon intensity levels.

Special Climate Change Fund (SCCF)

The SCCF under the Convention was established in 2001 to finance projects relating to adaptation; technology transfer and capacity building; energy, transport, industry, agriculture, forestry and waste management; and economic diversification. This fund should complement other funding mechanisms for the implementation of the Convention. The GEF, as the entity that operates the financial mechanism, has been entrusted to operate the SCCF. Adaptation activities to address adverse impacts of climate change have top priority. Technology is also a priority – key technologies are identified with large GHG mitigation potential and of interest to a large number of developing countries. Activities are financed based on COP guidance.

Forest Carbon Partnership Facility Readiness Mechanism

The preliminary selection criteria for countries identified by the FCPF Readiness Mechanism (i.e. for capacity building) are:

- Relevance of Countries (forest cover; current/expected emissions from deforestation)
- Balance (3 main biomes; geographical balance)
- Ownership of National Government
- Variety of Approaches (Forest types; degradation should be tested; different implementation strategies)

Annex II: DAC Guidance: Strategic Environmental Assessment

Source: Excerpted from OECD 2006. *Applying Strategic Environmental Assessment: Good Practice Guidance for Development Co-operation*. OECD: Paris. http://www.oecd.org/dataoecd/4/21/37353858.pdf

Development assistance is increasingly being provided through strategic-level interventions, aimed to make aid more effective. To ensure environmental considerations are taken into account in this new aid context, established environmental assessment tools at the project level need to be complemented by approaches fully adapted to policies, plans and programmes. Strategic Environmental Assessment (SEA) meets this need.

SEA provides a practical and direct means of progressing MDG 7 on Environmental Sustainability (agreed at the UN General Assembly in 2000). This calls for the "integration of the principles of sustainable development into country policies and programmes". Secondly, SEA also helps further the Johannesburg Plan of Implementation agreed at the World Summit on Sustainable Development in 2002, which stressed the importance of "strategic frameworks and balanced decision making […] for advancing the sustainable development agenda".

The Paris Declaration on Aid Effectiveness, adopted in 2005, commits donors to reform the way in which aid is delivered to improve effectiveness, by harmonising their efforts and aligning behind partner countries' priorities. It also calls upon donors and partners to work together to "develop and apply common approaches for strategic environmental assessment at sector and national levels".

Application of SEA

The shift of emphasis away from development projects to programme and policy support has created a number of particular entry points for the application of SEA. This guidance outlines the benefits of using SEA in a range of different circumstances, and sets out 12 key "entry points" for effective application of SEA to development co-operation. It points to key questions to be addressed for each of them, accompanied by specific checklists of these questions, and illustrative case examples.

The entry points for SEA can be grouped into 3 areas:

1. Strategic planning processes led by a developing country: These include national overarching strategies, programmes and plans; national policy reforms and budget support programmes; sectoral policies, plans and programmes; infrastructure investments plans and programmes; national and sub-national spatial development plans and programmes and transnational plans and programmes.

2. Development agencies' own processes: These include donors' country assistance strategies and plans; partnership agreements with other donor agencies, donors' sector-specific policies, and donor-supported public-private infrastructure support facilities and programmes.

3. Other related circumstances: These include independent Review Commissions and major private sector-led projects and plans.