The effectiveness of international climate finance

Smita Nakhooda

Working Paper 371

Results of ODI research presented in preliminary form for discussion and critical comment

Working Paper 371

The effectiveness of international climate finance

Smita Nakhooda

April 2013

ODI
203 Blackfriars Road,
London
SE1 8NJ
www.odi.org.uk

Contents

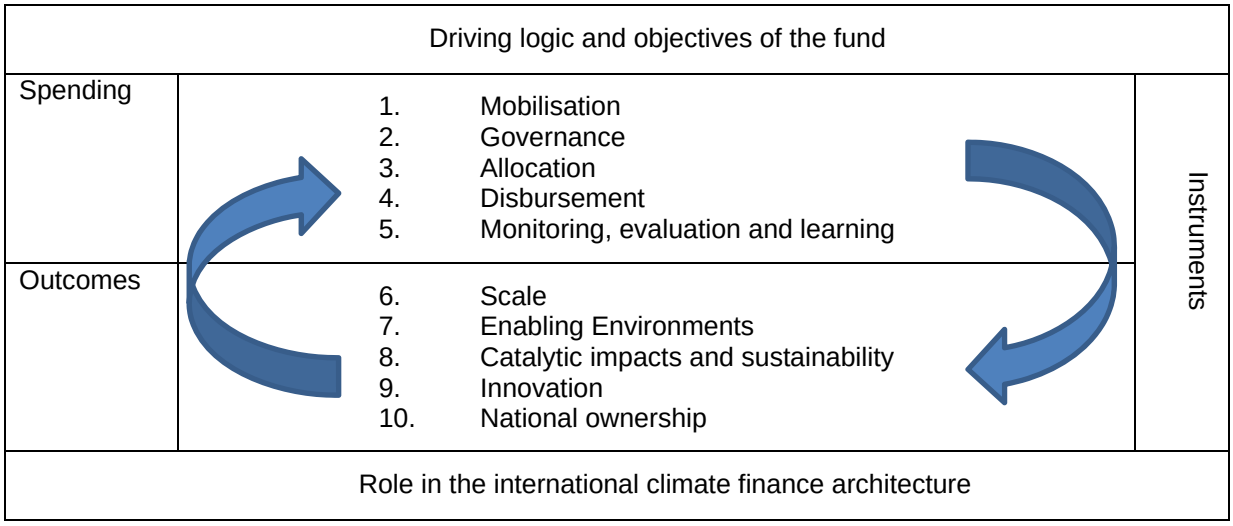
Executive summary

Maximising the effectiveness of climate change finance is an issue of urgency for both the climate change and development communities, who are focused on finding the best ways to use relatively small amounts of largely public finance to have the greatest possible impact in enabling climate compatible development.

This paper considers the context in which climate finance is delivered, before turning to present a framework for analysing the effectiveness of multilateral climate funds. The framework identifies ten key and interlinked dimensions that are central to understanding the effectiveness of spending and outcomes (Figure A).

It starts by considering the **driving objectives** of a multilateral climate fund, setting it in its historical context, and the range of **instruments** that it has been able to offer. It then analyses five components of ***effective spending,*** or the integrity of processes by which funds are (1) mobilised (2) governed (3) allocated (4) disbursed and (5) results of funding are monitored and evaluated. Next, it considers ***effectiveness of the outcomes*** of the fund with respect to an additional five components: (6) scales (7) engagement with enabling environments (8) catalytic effects, particularly in mobilising private investment (9) innovation (10) national ownership. Finally, it analyses the role of the **fund in the global international climate finance architecture**, and the particular value that it has added. The framework emphasizes the enabling role of public finance in creating the conditions under which low carbon and climate resilient development can become economically viable options for diverse developing countries.

Figure A. A framework for understanding the effectiveness of international climate finance



1 Introduction

All countries, developed and developing alike, increasingly recognise the need to transition to low carbon and climate resilient economic trajectories. Climate finance is used to help developing countries mitigate and adapt to climate change. Climate change adds additional complexity and urgency to longstanding and fundamental development challenges. Maximising the effectiveness of climate change finance is an issue of urgency for both the climate change and development communities, focused on finding the best ways to use relatively small amounts of largely public finance to have the greatest possible impact in enabling climate compatible development. Lessons from efforts to strengthen the effectiveness of development assistance should inform new efforts to deploy climate finance. The delivery of climate finance therefore necessarily involves meeting multiple objectives, and substantial complexity. [1]

The OECD (2009) defines effectiveness as 'measure of the extent to which an activity attains its objectives'[2], making the case for reflection the major factors influencing their achievement (or lack thereof). This paper draws on approaches to assess the effectiveness of multilateral funds (Evans et al 2007), the literature on climate finance, and lessons from efforts to enhance the effectiveness of development assistance, in order to develop a framework for analysing the effectiveness of international climate funds. It starts by considering the evolving context in which climate finance is delivered. It then reviews the core objectives and approaches of multilateral climate funds. On this basis, it proposes a framework that identifies ten interlinked dimensions that are central to understanding the effectiveness of spending and outcomes of multilateral climate funds (see figure 1). These dimensions are also relevant for international public climate finance delivered through bilateral channels, or national climate funds, although the specific considerations may need to be modified.

The goal of the framework is not to support a comprehensive evaluation of climate funds. Instead, it is intended as a research tool to support an analysis of the achievements of climate funds that is cognisant of the context and constraints within which a fund operates. Its goal is to draw out lessons from the experiences of diverse climate funds. These lessons can complement official evaluations of international climate funds that are getting underway, and inform efforts to strengthen the effectiveness of these funds. Resultant insights can also help inform efforts to improve the international climate finance architecture and operationalise new multilateral climate funds. The framework considers environmental outcomes on a fund by fund basis, in the context of their driving logic and objectives, and the M&E systems they have created for themselves.[3]

It builds on an initial collaborative effort of the Environmental Defence Fund, Brookings Institution, Climate Policy Initiative and ODI to distil lessons from existing efforts to fund climate finance (Chaum et al 2011), complemented by background papers on methodologies and metrics for understanding leverage (Brown 2011), and the monitoring and evaluation frameworks of existing climate relevant funds (Buchner and Wilkinson 2012). Expert workshops and discussions convened since 2012 have shaped the approach taken. Finally, it is informed by insights from ODI's efforts to monitor climate finance,[4] and work with developing countries and development

[1] Attention to this issue has increased in the context of a growing focus on results based management, and fiscal austerity that increased pressure to demonstrate that public finance is used well.

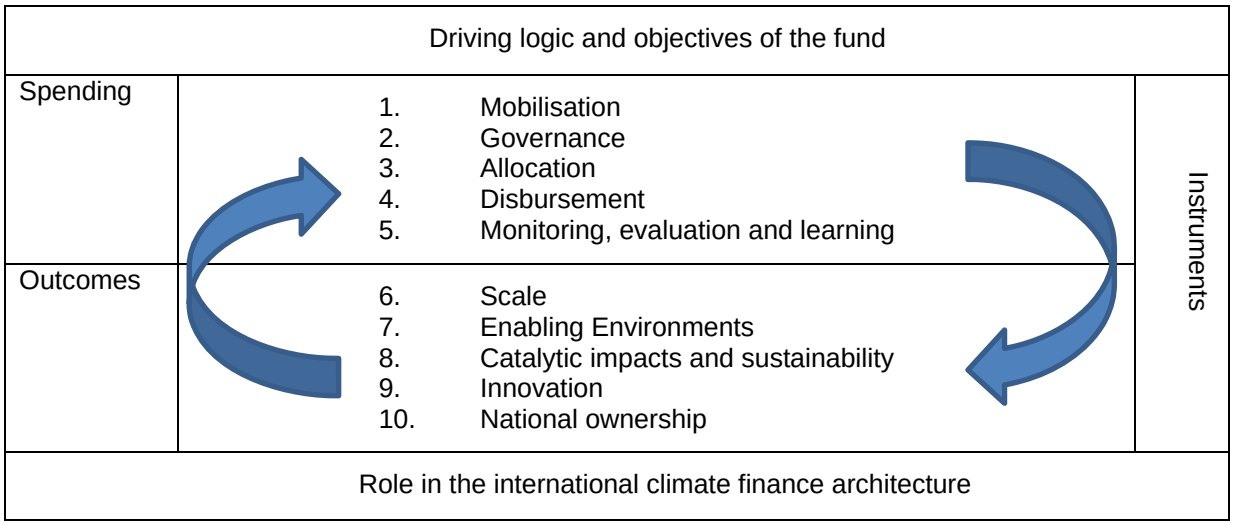
[2] There are other agreed dimensions to the evaluation of interventions (including sustainability, and efficiency). This paper touches on these dimensions (as they affect effectiveness) but does not focus on them. It is worth distinguishing between efficiency and effectiveness (an intervention may be effective, even if it is not highly efficient), and between sustainability and effectiveness (an intervention may be effective, but may require sustained support rather than immediately achieving sustainability).

[3] Adaptation funds will need to achieve very different objectives than mitigation focused funds, whose ultimate though not exclusive objective will be to reduce GHG emissions.

[4] Notably the joint ODI initiative http://www.climatefundsupdate.org which monitors dedicated climate funds from the point when donors pledge finance to disbursement in country.

partners to understand national frameworks for the effective management of climate finance (Bird et al 2012, Bird et al 2013) and readiness for the effective use of climate finance (Nakhooda et al 2012b). This initial conceptualisation is intended to spark discussion. It is a contribution to a growing body of work seeking to shed light on the effectiveness of public climate finance.

Figure 1. A framework for understanding the effectiveness of international climate finance



2 Climate finance in context

2.1 An evolving logic for climate finance

The driving logic behind the delivery of climate finance has evolved over time. A core purpose of climate finance remains to address the additional costs that are often associated with low carbon and climate resilient options. Most developing countries are now taking steps to address climate change as part of their development strategies, although in all countries (developed and developing) there is much more that needs to be done. Climate finance can support green investment, which helps create jobs, and builds new sources of economic prosperity, while helping to meet developmental needs for energy and infrastructure services sustainably and securely (Neuhoff et al 2010, Zadek 2012, Buchner Heller and Wilkinson 2012). At the same time, contributors of climate finance count much of this finance towards official development assistance. This creates supply side obligations to ensure that climate funds deliver development benefits. Climate finance has the potential to help support a 'paradigm shift towards low carbon, climate resilient development'.

2.2 Supporting innovation: improving viability, and reducing costs

Responding to climate change will require innovations in how we presently approach development challenges (Holdren 2011, Byrne et al 2012, Siegel and Strong 2011). There has been a strong emphasis on the role of finance in supporting technology innovation, and the deployment and transfer of climate change relevant technologies in global efforts to respond to climate change (Box 1). Finance can play a central role in supporting technology innovation (Fransman 2008, Grubb 2004, UNECE 2009), particularly at the early stages of new technology development and deployment where financial risks may be particularly high, and private investors are often unable or unwilling to participate (Tawney et al 2012, Nakhooda et al 2012). In turn, innovation can shape how finance is spent, and which stakeholders engage. There is more to innovation than just technology, however (Levine et al 2012). Climate finance can also play an important role in supporting the capacity of stakeholders and communities to innovate in order to respond to climate

change. Finally, there have been innovations in using finance to form new kinds of financing structures and partnerships that address barriers to climate specific interventions. Each of these forms of innovation are relevant to effectiveness. It is therefore useful to consider how international climate funds have supported this broad continuum of approaches to innovation, including innovative technologies, deployment approaches, financing models, as well as capacities and institutions (including at local level).

2.3 Ownership is central

Ultimately, international finance will need to supports the realisation of nationally owned and led responses to climate change if it is to be effective. (Ballesteros et al 2010, OECD 2012, CIF 2012, Chaum et al 2011). The literature on aid effectiveness similarly indicates a consensus on the centrality of the principle of "ownership" although its realisation is far from simple (Rogerson 2011, Glennie 2011). The Paris agreements on Aid Effectiveness define national ownership as "the effective exercise of a government's authority over development policies and activities, including those that rely – entirely or partially – on external resources. For governments, this means articulating the national development agenda and establishing authoritative policies and strategies" (OECD 2010). There is an important role for parliaments, civil society, and the private sector in efforts to develop such strategies.

There is interest in finding ways to deliver climate finance through national financial systems in support of emergent national policy priorities. Progress to this end may help strengthen ownership of emergent climate change policies and strategies and institutions (UNDP 2012, Bird et al 2012, Bird et al 2013). The use of national level stakeholder engagement and decision-making processes to prioritise how climate finance is programmed can help increase coherence with national priorities. It can also help tailor instruments and approaches to fit national needs (Persson et al. 2009). Efforts to understand effectiveness therefore need to consider how climate funds have supported nationally owned and led responses to climate change.

2.4 Improving policies, regulations and governance

While climate policies and strategies are emergent in many developing countries, they are not always well established in practice. The extent to which institutions entrusted with leading national efforts to address climate change are competent, have operational mandates and influence varies. So does the extent to which climate change related plans and strategies influence actual decision-making and investment in relevant sectors. The capacity and accountability of institutions involved in efforts to respond to climate change and entrusted with managing climate finance at national level may need strengthening.

Leadership will need to be supported and encouraged where it can be found, and may come from a diversity of institutions and stakeholders. There is a recognised role for climate finance in helping to strengthen underlying policies, regulations, institutions and governance that will enable investment in climate compatible development (UNFCCC 2012, WEF 2012). Grants, technical assistance, as well as budget support and policy lending, can be used to support countries to address policy, regulatory, and underlying governance frameworks that affect climate change adaptation and mitigation (UNFCCC 2012). The political economy of such change is complex (Tanner and Allouche 2011). If finance is directed in ways that are supportive of well-designed national plans and associated institutions, it can help strengthen their role and influence. International institutions can support rigorous analytical and stakeholder engagement to input into the development of plans. In practice, however, such efforts may be in tension with efforts to

ensure national ownership. Providers of international finance may be constrained in their ability to push issues further than sovereign governments are ready to go.[5]

2.5 Harnessing the Private Sector

Efforts to respond to climate change will need to shift incentives towards investment in low carbon and climate resilient options, given that private investment often outstrips public investment in climate change relevant sectors by an order of magnitude. This is particularly the case for mitigation, where private investors have relevant expertise, and own many of the assets and technologies that are needed to support low carbon development. Enabling environments affect whether the private sector will continue to invest in business as usual activities that contribute (Whitley 2013, Venugopal et al 2012, Buchner, Heller and Wilkinson 2012), and the viability of investments in low carbon and climate resilient approaches.

A great deal of international attention is increasingly focused on options to direct private investment into low carbon and climate resilient development (UNFCCC 2012, Whitley 2012 a, b, c). This interest has increased in a context of public fiscal austerity in many developed countries. The role that the private sector can play varies across countries, however, and is shaped by the overarching investment climate. In countries with a weak investment climate, it may be more difficult to engage the private sector.

International public finance can fill gaps that other forms of finance (particularly private finance) would not address on their own, and mobilise additional investment by making investments viable for private actors (Buchner, Heller and Wilkinson 2012). A range of instruments may be used to address diverse risks that keep highly heterogeneous private sector actors from making low carbon and climate resilient investments. Annex II presents a simplified typology of the range of instruments that have been used to drive private investment in to low carbon and climate resilient sectors and approaches. Such a typology might usefully inform diagnostics at recipient country level that help identify where public sector finance can best fill gaps, and leverage private investment.

Many existing climate funds have placed a significant emphasis on directly leveraging private finance and mobilising co-finance. In practice, it can be difficult to ensure that that climate finance does not crowd out or compete with other forms of available finance. This is compounded by the reality that many providers of international public climate finance have limited risk tolerance themselves, and need to be assured of returns on their investments. A singular focus on leveraging private investment may have problematic outcomes. First, leverage values are rarely calculated consistently. Second, it is only one of indicator of effectiveness in engaging the private sector. Third, high leverage ratios may not always indicate an effective use of public finance: indeed it may be easiest to achieve high leverage ratios where public finance is least needed. There is value in taking a more encompassing approach. We therefore see value in an exploration of the role that public finance can play in catalysing greater action, particularly from the private sector.[6]

[5] Furthermore, proactive engagement by some implementing agencies of international climate finance may be viewed suspiciously in a national context. Such suspicion may be linked to the legacies of these agencies past engagements with recipient country institutions, and a pre-existing lack of trust.

[6] Organisations such as the World Resources Institute (Venugopal et al 2012) and the Climate Policy Initiative are developing a complementary body of case studies of the impacts of climate finance within recipient countries, which begin to provide a basis for deeper investigation of these effects in practice.

3 Major objectives of existing multilateral climate funds

The preceding discussion has highlighted key considerations in the delivery of international climate finance. Next, we turn to consider the broad approaches that major multilateral climate funds have taken to supporting mitigation, efforts to reduce emissions from deforestation and degradation, and adaptation. This analysis identifies the core objectives of existing funds, and the metrics that have been used to assess their progress towards these objectives. At present, most funds use different indicators, metrics and objectives against which they measure and assess progress, although there is interest in greater harmonization around at least a core set of results (Buchner and Wilkinson 2012).

3.1 Mitigation

Mitigation has received the majority of climate finance to date: major multilateral funds focused on mitigation include the Global Environment Facility, as well as the Clean Technology Fund and the Scaling Renewable Energy Program of the Climate Investment Funds (Nakhooda et al 2012). A substantial focus of existing mitigation funds has been to support greenhouse gas emission reduction through the deployment of low carbon technologies.

Greenhouse gas emissions

Most mitigation focused funds seek to quantify emissions in absolute terms, and emission reductions relative to a business as usual baseline scenario, although the methodologies used for such quantification often varies. Such measures are often complemented with reporting on outputs (for example, MW of clean energy installed). Many existing climate funds have focused on maximising the cost effectiveness of interventions in terms of the cost of a unit of emission reduction – often expressed as the cost of reducing a ton of carbon dioxide equivalent (Chaum et al 2011, Wagner 2012). Some funds, notably the Global Environment Facility, have delivered finance on the basis of meeting the incremental costs of low carbon development, or the difference between the costs of meeting energy needs under a business as usual scenario and the higher costs of low carbon technologies.

Enabling Environments, Policies and Regulations

Furthermore, not all mitigation projects are guaranteed to result in immediate term emission reductions, however. Interventions may support the underlying frameworks and conditions that can enable those reductions to take place over time, including by demonstrating the viability of lower carbon approaches. Many mitigation funds therefore consider the impact of finance on policies, regulations and incentives. Some funds are exploring performance based approaches to delivering such support (Ghosh et al 2012), linking the delivery of finance to demonstrated progress towards meeting agreed objectives.

Poverty and development linkages

Some funds have placed a more explicit focus on mitigation and development poverty linkages, by seeking to measure the number of people whose access to low carbon energy services have improved as a result of programs funded. Not all interventions that deliver large scale GHG mitigation also offer direct poverty reduction benefits, although steps can often be taken to improve the developmental impacts of mitigation projects and ensure that they deliver social benefits. In turn, not all investments in low carbon development which have direct poverty impacts necessarily offer immediate term mitigation benefits. For example, extending access to low carbon energy for those who presently lack access to energy, may make a relatively modest contribution to reducing global GHG emission reductions in the immediate term, although it may have an important role in realising long term climate compatible development aspirations. However, finding low carbon approaches to meeting the energy and infrastructure (transport and water) needs of low income countries (which currently make a very modest contribution to global GHG emissions) can help ensure that as they grow, they are part of a global solution to climate change, and reap its benefits (Bowen and Frankhauser 2011; Ellis 2013).

Private investment

Private companies and investors have a growing role in implementing and financing interventions that deliver mitigation benefits, particularly in the renewable energy sector. There has therefore been strong interest in understanding how public finance can attract private investment. Many mitigation funds seek to measure how much private finance has been directly leveraged through their interventions.

3.2 Forests and Land Use

The potential to reduce emissions from deforestation and forest degradation, conservation of forest, sustainable forest management and the enhancement of forest carbon stocks (REDD+) while also delivering poverty reduction and developmental benefits has been a significant focus of international climate finance. Major multilateral funds that support such programs include the World Bank administered Forest Carbon Partnership Facility, the UN REDD program, the Forest Investment Program of the Climate Investment Funds, and regionally focused funds including the Congo Basin Forest Fund and the Amazon Fund. REDD+ finance complements longstanding efforts to protect the world's remaining tropical forests. Several REDD+ funds were structured with the intention of piloting payments for demonstrated performance in, for example, conserving or increasing forest cover and thus reducing emissions from forests. Global mechanisms to provide large scale incentives for such approaches have not been realised as expected, however. The ecosystem services and livelihood support that forests also provide, creates strong linkages between REDD+ and adaptation to climate change.

Forest cover and emissions
Much effort has been invested in establishing forest information systems to monitor and verify reduced deforestation and degradation using advanced technologies (although uncertainties remain about the carbon stocks and flows in different forests types). From such systems, REDD+ fund results frameworks have sought to assess greenhouse gas emission reductions, the area of forest conserved and/or reforested and the extent to which rates of deforestation have decreased. In practice, however, relatively few funds are working on the basis of paying for emission reductions, in part because of the political and social complexities associated with implementing REDD+ activities in practice.

Biodiversity and ecosystem services
The biodiversity and broader environmental value of forests are also increasingly recognised by REDD+ funds and are often considered as co-benefits of REDD+, or at least, values to be safeguarded from harm. This is necessary as the promotion of biodiversity, for example, may be in tension with efforts to maximise emission reductions (a high carbon forest, such as a plantation, may not always be high in biodiversity value).

Sustainable livelihoods and poverty linkages Tropical forests support a number of livelihoods and REDD+ finance has been used to support the creation of more sustainable livelihoods for forest dependent people while also allowing forest conservation, for example, agroforestry, non-timber forest product value addition, livelihood diversification and sustainable forest management. Many fund results frameworks therefore focus on understanding whether funds have impacted on the well-being of forest dependent people and communities. However, in many countries the major drivers of deforestation are not from small-scale livelihood activities, but are rather linked to larger-scale economic activities such as commercial agriculture or infrastructure development.

Strengthening Enabling Environments
Substantial experience confirms the importance of strengthening governance of forests and enabling forest policy environments to the success of any efforts to protect forests across landscapes. This includes establishing clear property rights, strong public and private sector institutions, greater sector integration, redirecting investment that presently drives deforestation, better information and awareness, and full stakeholder participation, as well as an understanding of the political economy (Brown et al., 2002, Davis et al 2010, Watson et al 2012). Engaging on these issues has been a growing focus of efforts to finance efforts to reduce emissions from deforestation and degradation, particularly through support for "REDD+ readiness" activities.

Existing REDD+ funds have therefore considered whether capacities to manage forest resources sustainably have been strengthened, whether policy and regulatory frameworks have improved, and provisions for stakeholder participations have been enhanced at national level.

3.3 Adaptation

Historically, adaptation has received the smallest share of international climate finance, although commitments have been made to scale up funding for adaptation, particularly in poor and vulnerable countries. The Adaptation Fund, the Special Climate Change Fund, and the Least Developed Countries Fund, and the Pilot Program on Climate Resilience of the Climate Investment Funds have all delivered adaptation finance.

Adaptation and development are closely linked

The ambiguity of adaptation as a concept complicates understanding of how to finance it most effectively. In practice, adaptation and resilience building activities within countries may be difficult to distinguish from activities which contribute to "good" development (Jones et al 2012, Frankhauser and Burton 2011). Conventional development interventions, such as those that support sustainable livelihoods, social protection, or disaster risk reduction programmes) can strengthen resilience and adaptive capacity, often without explicitly recognising it (Levine et al. 2011). Regardless of complexity in definition, the reality is that adaptation finance will need to be spent well within recipient countries if it is truly to build resilience and adaptive capacity. Not all development interventions necessarily enhance resilience to climate change. Investment in energy, transport and water services is essential to strengthen the resilience and adaptive capacity of low income countries (UNFCCC 2012). If these services are provided in carbon intensive ways, they threaten to create vicious feedback loops in which investments in development that strengthen resilience to climate change, will in turn exacerbate climate change. Adaptation funds have supported both stand-alone adaptation projects, as well as (increasingly) supporting programmatic approaches that seek to integrate adaptation and climate risk into development activities.

Soft vs. Hard adaptation

There is a strong case for adaptation finance to support "soft" investments that support information, planning, risk assessment and reduction, and innovation capacity. Many adaptation finance planning processes, however, have tended to result in a preference for more visible infrastructure and technological options (such as sea walls, and large scale irrigation, as well as "climate proofed" roads and other physical infrastructure (IIED 2009, Levine et al 2009). As the amount of adaptation finance available increases, we also observe a growing volume of funding directed to hard adaptation. Such investments are also appealing to governments, as they provide a source of additional lower cost capital that helps them make needed investments in infrastructure services. However, the uncertainties associated with the actual physical manifestations of climate change create risks that investments in "hard adaptation" result in maladaptation (Frankhauser and Burton 2011).

Measuring adaptation and resilience

IIED has suggested assessment of adaptation finance in terms of: (i) the impact of an intervention at the institutional level, e.g. in terms of preparedness, resilience or adaptive capacity, (ii) the impact of an intervention on the vulnerability of individuals, groups or other entities, and (iii) the impact of an intervention on outcomes, where such outcomes can be measured (e.g. on mortality, health or poverty outcomes) (Brooks et al 2012). WRI proposes considering effectiveness in terms of (i) adaptive capacity (ii) implementing adaptation actives that respond to concretely identified climate risks (iii) sustaining development in a changing climate (McGray and Spearman 2012). The results frameworks of existing adaptation funds reflect many of these considerations, as well as seeking to understand the impact of finance on awareness of climate change, and support for the transfer of adaptation relevant technologies.

4 A Framework for Considering Effectiveness

The preceding discussion of the context for delivering climate finance, and the major objectives of international climate funds, provides a basis from which to propose a set of key components of effective multilateral climate funds. Many of these components reflect the typical focal areas of multilateral effectiveness assessments (Evans et al 2007). They are also broadly consistent with the criteria of effectiveness agreed by parties to the UNFCCC when reviewing the financial mechanisms of the convention (see box 1).

Our framework (see Table 1) starts by considering the **driving objectives** of a multilateral climate fund, and the range of **instruments** that it has been able to offer. It then analyses five components of ***effective spending,*** or the integrity of processes by which funds are (1) mobilised (2) formally governed and administered (3) allocated (4) disbursed and (5) impacts of funding are monitored and evaluated. Next, it considers ***effectiveness of the outcomes*** of the fund with respect to an additional five components: (6) scales (7) engagement with enabling environments (8) catalytic effects, particularly in mobilising private investment (9) innovation (10) national ownership. Finally, the assessment framework concludes with an analysis of the role of the **fund in the global international climate finance architecture**, and the particular value that it has added.

Box 1: UNFCCC Guidance on Climate Finance Effectiveness

In 1998 the COP proposed the following criteria against which to assess the effectiveness of Climate Convention financial mechanisms:
(a) The transparency of decision-making processes;
(b) The adequacy, predictability and timely disbursement of funds for activities in developing country Parties;
(c) The responsiveness and efficiency of [the] project cycle and expedited procedures, including its operational strategy, as they relate to climate change;
(d) The amount of resources provided to developing country Parties, including financing for technical assistance and investment projects;
(e) The amount of finance leveraged;
(f) The sustainability of funded projects.

In the fourth review of the financial mechanism of the UNFCCC in 2007 the following additional guidance was agreed:

(a) Examining relevant sources and means of financing [that] would assist developing countries to contribute to the achievement of the objective of the Convention, in particular innovative means of financing, such as for the development of endogenous technologies in developing countries;
(b) Examining the role of the financial mechanism in scaling up the level of resources;
(c) Assessing enabling environments for catalysing investment in, and the transfer of, sustainable technologies that mitigate greenhouse gas emissions, and for enhancing resilience to climate change.

Sources: UNFCCC (1998) Decision 3/CP.4 Review of the financial mechanism, UNFCCC (2007) CP.13 Fourth review of the financial mechanism.

Table 1: Framework for Considering the Effectiveness of International Climate Finance

	COMPONENT	PURPOSE AND DRIVING LOGIC OF THE FUND	INSTRUMENTS
SPENDING	**1. Resource Mobilisation Approach**	• How much money has been mobilised, over what time period, and in what form? • Under what conditions have financial resources been committed? • How much of the pledged finance has actually been deposited?	**1)** what range of instruments have been available? 2) What costs and risks has the fund taken on? 3) How appropriate have these instruments been for achieving the strategic purpose of the fund?
	2. Voice and administration	• How transparent are the operations of the fund (e.g. reporting, minutes of governing committee meetings)? • How often does it meet, and how efficient is its decision-making process? • What is the balance of developed vs. developing country representation on the fund? • What provisions have been made for stakeholder participation in governance? • How costly is fund administration (as a proportion of overall spending, and in absolute terms)?	
	3. Investment Strategy and Allocation	• How were funding decisions made? • How does the funding cycle work, and who plays what roles? • To what extent are funds managed by national institutions (how and why)? • How were programmes for which finance was sought selected? How much deliberation was involved? Who was consulted?	
	4. Disbursement and risk management processes	• How transparent are disbursement processes? • How quickly and efficiently does the fund work from approval through to disbursement? • What provisions are there to safeguard against negative environmental and social impacts, and raise complaints? Is there any evidence that they have been implemented? • What is the process for changing funding decisions or withdrawing funding for non-performance?	
	5. Monitoring, evaluation, and learning	• What are the key elements of the results framework of the fund? • How accessible and practical is the system? What efforts have been made to improve and refine it? • How are we collecting and responding to lessons from implementation?	
OUTCOMES	**6. Scale**	• Has the fund engaged diverse stakeholders at a variety of scales (from global to local and individual)? i. How has the fund engaged at different levels from regional to national to sub-national, community, or individual? ii. Has the fund been able to support both small and large projects? iii. How has it sought to scale up and replicate its approaches?	

	7. Enabling Environments	• Has the fund improved conditions that support climate compatible development at various scales within recipient countries? • Has it addressed policy and fiscal incentives that mobilise/unlock new investments and tackle underlying subsidy regimes? • How has it addressed these issues? What kinds of policy, regulatory and institutional changes have resulted? What kinds of institutional capacities have been strengthened?	
	8. Catalytic Role	• Has the fund "catalysed" action by a wider group of actors and stakeholders, including private sector implementers and investors? •Has the funding helped reduce costs, increase returns, or reduce risks that faced by various actors involved in program delivery? • Has co-finance and private finance been leveraged through investments? How much, and why? • Has it prompted additional action and learning by other actors?	
	9. Innovation	• How has the fund supported innovation? • Has it been able to provide early stage support for promising new technologies? • Has it supported new deployment approaches? • Has it supported innovation with respect to livelihoods, and invested in human innovation capacity? • Has it invested in policies and institutions that will allow innovation to flourish at a variety of levels from regional to local?	
	10. National Ownership and Leadership	• Have national institutions played a central role in conceptualising programs and engaging with the fund? • How closely are the programs the fund has supported aligned with national climate related initiatives and strategies? • Has the fund been able to engage key influential institutions (both within and beyond government) at national level? • Has it worked through national planning and financial management systems, or supported efforts to strengthen such systems?	
	WHAT IS THE PARTICULAR VALUE THE FUND HAS ADDED IN THE GLOBAL CLIMATE FINANCE ARCHITECTURE?		

The framework identifies key considerations relevant to each of these components. Not all of these considerations will necessarily be relevant for all funds, and will need to be used selectively. Nevertheless, the components and considerations should provide a basis for a comparable analysis of the achievements of diverse funds, and help distil useful lessons from fund experience for the effective delivery of climate finance.

A. Driving Objectives

The driving objectives, logic, and results frameworks of climate funds will fundamentally shape what they are able to support and achieve. Understanding these objectives is the first step to analysing the effectiveness of international climate finance.

B. Instruments

The second step is to consider the range of instruments that the fund has used to support climate change responses in developing countries, and what kinds of costs and risks these instruments have allowed the fund to take on. A diverse range of financial support mechanisms, tools, and instruments may be needed to help developing countries finance investments that affect climate change (Neuhoff et al 2009, Chaum et al 2011, Buchner 2012, UNFCCC 2012).

C. The process of spending

The following five interlinked considerations are key to understanding the effectiveness of systems to spend climate finance. These components are informed by UNFCCC guidance (Box 1), and build substantially on Ballesteros et al 2010.

1. Resource Mobilisation Approach

It is first necessary to understand how much finance has been entrusted to a fund, and the terms on which this finance has been provided. Fundamental questions include the volume of finance that has been mobilised, its time period, and the sources of finance for the fund. Many public climate funds raise some finance from developed country governments, but the form in which this contribution is made varies. The most common forms of contributions include capital grants, loans --at various costs-- and pure grants. Funds may also benefit from private contributions, or have innovative sources of finance, as in the case of the Adaptation Fund, where part of its funding comes from a 2% levy on the sale of certified emission reductions generated through the clean development mechanism. Finance is usually also committed for a certain period of time, which may affect the kinds of investments that a fund is able to make. Finally, the promise of funding is distinct from the actual availability of finance: in many cases actual deposits of finance lag behind pledges (ODI HBF 2012), so it is important to consider the volume of deposited funding. A climate fund or finance initiative's ability to mobilise finance affects perceptions of its effectiveness, and confidence that it will use funds well.

2. Voice and administration

Trust in a climate finance initiative is likely to be shaped by the distribution of power in its formal governing committees, administrative arrangements, and the extent to which it is seen to operate in a transparent, inclusive and accountable way. For multilateral funds, the formal representation and voice of contributor and recipient perspectives in fund decision-making is a key consideration (Ballesteros et al 2010). The extent to which the fund engages with a wide range of stakeholders including other key institutions in the international climate finance architecture, nongovernmental and private sector stakeholders, as well as expert practitioners affects the inclusiveness and responsiveness of its governance. The transparency of the funds operations is highly relevant in this regard: clarity about its overarching goals and objectives, as well as the details of its operational decision making can help foster confidence and accountability in its governance (Watson et al 2012, Dubosse and Calland 2011). The efficiency and nimbleness of its decision making processes are also key considerations.

3. Investment strategy and fund allocation

The allocation of resources to prioritised activities is one of the key outcomes of an effective governance structure. It is essential to understand the formal processes and informal influences and political considerations that affect how funding decisions are made. Such allocation may be informed by explicit and implicit strategies which set out roles for key actors, manage risks, and guide investment. It is important to understand how the programmes for which finance was sought were selected, and how these fit with (evolving) recipient country strategies and priorities for responding to climate change is a central consideration. It is useful to consider how much deliberation was involved in developing a funding strategy and approach, and the range of stakeholders that were consulted. The issues of national ownership and scale introduced earlier are of central relevance here. The project cycle is a key consideration: the number of actors and processes involved can often get cumbersome and unwieldy, including when relatively small sum of finance are involved. It is necessary to understand the dynamics of the project cycle, and any efforts that have been made to stream line and simplify it without compromising the intrinsic quality of supported programmes.[7]

However, many interventions to address climate change present risks in terms of ensuring that funds are used for their intended purposes in line with robust fiduciary management standards, and with sufficient due diligence to diagnose and manage any potential environmental and social risks. The approach taken to managing such risks and its appropriateness for the objective of the fund may need to be analysed. In considering allocation of finance, the role of national institution in managing this finance also needs to be considered. Finally, the costs of fund administration are an important consideration. These may be calculated as a proportion of the overall spending of the fund, as well as in absolute terms. It is worth noting that there are likely to be minimum threshold costs involved with establishing and administering a climate finance initiative to allow a basic level of funding to be managed and as a result the administration costs for smaller funds (and those that administer smaller projects with more targeted interventions) may be relatively high.

4. Disbursement and risk management

A key issue of concern for both contributors and recipients of multilateral finance has been how to disburse funds as quickly and efficiently as possible (Faint and Johnson 2009, Wathne and Hedger 209). This concern is of particular interest for climate finance given the complexity of projects and the urgency of action. The efficiency of disbursement is linked to the integrity of the allocation processes described above. There are may be trade-offs between rapid disbursement, however, and ensuring the robust design of projects and programmes that have strong national ownership and will appropriately tackle the complexities of intervention to address climate change (Diarra 2011). While the speed of disbursement is a relevant consideration, a singular focus on quick disbursement is likely to increase the risks of projects that take on more complex or delicate issues (and may have long term impacts). A focus on the quality of programmes and projects funded is also needed A necessary precursor to any discussion of disbursement, however, is transparency about the status of disbursement. In practice, access to information on these issues is uneven. Some funds have been wary of increasing disclosure on this count (particularly those that fund the private sector, citing business confidentiality restrictions).

A discussion of the quality and efficiency of disbursement is usefully complemented by reflection on the systems that are in place to manage risks and to take remedial measures when needed. It is therefore useful to consider the range of instruments available through which concerns or complaints may be raised, including those internal to the fund's governance, as well as independent accountability mechanisms. The suite of accountability mechanisms necessary is likely to vary according to the size, form and functions of the climate finance initiative, however, and consideration of the adequacy of these measures needs to take this context into account. One might seek evidence of implementation of policies that exist to safeguard against fiduciary, environmental and social risks have been implemented by participants. Finally, clarity on

[7] Some funds such as the Global Environment Facility have invested substantial effort in recent years to accelerate their project management cycles.

processes for changing funding decisions to respond to new circumstances or to withdraw funding in cases of non-performance are needed.

5. Monitoring, evaluation, and learning

Finally, there is a need to understand the systems and frameworks that are in place for monitoring and evaluation against the funds own objectives. Substantial mapping work to this effect has been completed by others (for example Buchner and Wilkinson 2012). In addition to laying out the key areas of emphasis of a fund's results framework and the methodological approaches that are used for evaluation, an assessment of effectiveness might consider its accessibility and practicality. The issue of how the fund results framework links with national systems for monitoring and evaluation is of central importance. It is also helpful to reflect on efforts that have been made to improve and refine these systems over time. Finally, there is a need to consider the systems that are in place to allow learning from experience, and continuous improvement of ongoing projects and programmes (Chaum et al 2011, Buchner and Wilkinson 2012, CIF 2012).

D. The Outcomes of Spending

The effectiveness of climate funds will ultimately need to be considered with reference to the results frameworks that they have set for themselves, which will be linked to their objectives and driving theory of change. Many funds are in quite early stages of implementation, and for more recent funds there is often an insufficient track record or data to assess their impact in these terms. Nevertheless, the literature and experience with climate finance suggests the following five interlinked considerations that are likely to apply to all international climate funds, regardless of whether they focus on mitigation, adaptation, or integrated approaches to climate change. Put another way, climate funds are unlikely to be effective if they have not been able to: work at a diversity of scales; strengthen underlying policy, regulations and governance (enabling environments) that shape recipient country efforts to respond to climate change; catalyse wider action by a diversity of actors—particularly the private sector; support innovation; or foster national ownership.

6. Scale

In understanding the effectiveness of climate finance, it is helpful to consider whether the fund has been able to work at a diversity of levels (from national to subnational and community level), as well as the extent to which the fund has been able to support projects of a variety of sizes, and the implications of the approach taken (particularly with respect to the needs of poorer and more vulnerable communities). All funds are not designed to work at all scales, however, and may not need to.

(i) How has the fund worked at different levels from regional to national to sub-national, ecosystem, community, or individual, and how?

The allocation of climate finance within countries is a significant issue. Processes to agree priorities (with regards to geographies, issue areas, sectors, and beneficiaries) vary across countries, incorporating a wide range of values and concerns depending on political processes and power arrangements (Aarjan et al. 2012). The differentiated nature of climate change impacts creates a strong rational for local level interventions to support adaptation (Jones et al 2012). Local institutions also have a crucial role in efforts to reduce emissions from deforestation and degradation (Watson 2012), and in mitigation given that local institutions are often involved in urban planning, local energy, transport, water and other infrastructure service delivery (Nakhooda 2012). A review of effectiveness might consider how funds have been able to support efforts at a variety of scales from national to local.

(ii) The size of projects and programs that the fund has administered, and its implications

Spending large amounts of funding well is challenging. Channelling funds to small projects can be complex and cumbersome, and incur significant transaction costs. This may create an inclination towards supporting larger projects and programmes over smaller ones. But smaller projects may have a vital role in helping developing countries respond to climate change, particularly to address the needs of the poor, or of communities. It is therefore relevant to consider the extent to which

institutions involved in delivering climate finance have been able to find an appropriate balance between supporting large projects, and innovative ways to channel funds to smaller and more disaggregated projects both quickly and cost-effectively.

7. Enabling environments: supporting policy, governance and institutions

Policy, regulatory and governance frameworks, particularly fundamentally shape the viability of investment in low carbon and climate resilient approaches (UNFCCC 2012). Public finance can be used to strengthen the underlying "enabling environment for climate finance", and helping address the various risks and barriers that different stakeholders (particularly private sector actors) face in scaling up investment in solutions to climate change, and scaling back investment business as usual approaches. It is therefore important to consider whether and how funds have helped to strengthen the underlying policy, regulatory, and institutional and capacity requirements that will enable climate compatible development at various scales within recipient countries. Have funds supported countries to assess barriers and underlying subsidy regimes (Whitley 2013, Nakhooda and Ballesteros 2012)? Where program implementation is sufficiently advanced, it would be useful to consider what kinds of policy, regulatory and institutional changes have resulted, and whether and how institutional capacities have been strengthened.

8. Catalytic role

An exploration of the catalytic impacts of climate finance provides a lens through which to consider the diversity of ways in which public finance can mobilise action and investment, particularly the private sector, and captures indirect linkages and effects (COWI and IIED 2009, GEF 2012). It is necessary to understand whether access to the fund will help reduce the costs of actions to address climate change or otherwise enhance returns, or reduce associated risks (Buchner, Heller and Wilkinson 2012). It may also be useful to analyse how much private finance has been directly leveraged through fund activities, and how much co-finance has been mobilised where such data is available.[8] These indicators may not be appropriate for all climate finance supported interventions, however. One might also consider the extent to which the fund has prompted or incentivised related private sector and government institutions to take further steps to address climate change.

9. Innovation

Innovation is likely to be a central element of the effective delivery of international climate finance. It is therefore useful to consider how international climate funds have supported a broad continuum of approaches to innovation, including innovative technologies, deployment approaches, financing models, as well as capacities and institutions (including at local level). How has the fund supported innovation encompassing technologies, approaches, local level innovation and diversification, or financial support mechanisms? Has it been able to provide early stage support for promising new technologies? In practice, there may be some resistance to using development finance to support innovative technologies and approaches where development outcomes cannot be guaranteed. Has it supported new deployment approaches? Has it engaged with and supported institutions that will allow innovation to flourish at a variety of levels from regional to local?

10. National ownership

A central consideration in understanding the effectiveness of funds is national ownership and leadership (OECD 2012, CIF 2012, Chaum et al 2011). It is therefore important to consider the role that recipient institutions have played in developing programs for which finance is sought, and engaging with the fund. How closely has the fund been able to work with key influential institutions (both within and beyond government) at national level? How well aligned are the programs the fund has supported are with national climate related initiatives and strategies? It is also important to consider whether the fund has been able to work through national planning and financial management systems, or supported efforts to strengthen such systems, and the results of any such efforts.

[8] Different funds also tend to use very different methodologies and approaches to calculate leverage (and, in turn, reach very different conclusions about how much finance has been leveraged), so such indicators must be carefully caveated.

E. Role in the International Climate Finance Architecture

Finally, it is necessary to reflect on role that a particular fund has played in international efforts to finance climate change activities in developing countries, and the particular competencies that it has developed. Any areas where leadership has (or could be) demonstrated are worth highlighting. It is also useful to consider key lessons from the experience of the fund for the delivery of international climate finance more widely.

5 Conclusion

As the international community seeks to scale up the delivery of climate finance, there is growing interest in understanding what it takes to spend international climate finance effectively. This paper has highlighted some of the key issues of interest to the international community in this respect, drawing on insights from the literature on climate finance, and ODI's on-going efforts to monitor the delivery of climate finance. On this basis, it outlines an initial approach to examine the key components of effective multilateral climate funds, with reference to both the processes by which funds are spent, and the outcomes of finance. The basic dimensions identified in the framework are broadly relevant for all public international climate finance and domestic climate funds, although specific considerations will need to be tailored and modified for this purpose.

This framework will be used to guide preliminary analyses of the experiences of existing multilateral climate funds, (see Annex I). The framework and ensuing assessments do not purport to provide the basis for a comprehensive evaluation of the effectiveness of climate finance. Instead, they seek to provide an evidence based overview of the operations and achievements of climate finance initiatives, in order to identify key challenges encountered (and why), and distil lessons learned for the effective delivery of climate finance.

Annex I: Methodological Note: Using the International Climate Finance Effectiveness Framework

Objectives

As the international community seeks to scale up the delivery of climate finance, there is growing interest in understanding what it takes to spend international climate finance effectively. The goal of this framework is not to support a comprehensive evaluation of climate funds. Instead, it is a research tool to support a qualitative analysis of the achievements of climate funds complemented with relevant quantitative data, that is cognisant of the context and constraints within which funds operate. The assessments should help provide an evidence based overview of the operations and achievements of climate finance initiatives, and identify key challenges encountered (and why), and lessons learned for the effective delivery of climate finance. The assessments should also provide useful insights that can inform efforts to strengthen the operations of climate finance initiatives, and the design of new climate funds.

Framework

Our international climate finance effectiveness framework starts by considering the driving objectives of a multilateral climate fund, setting it in its historical context, and the range of financing instruments that it has been able to offer. The context, objectives, and instruments that a fund offers fundamentally shape what it is able to achieve.

We then analyse five interlinked components of ***effective spending***, considering the integrity, efficiency and transparency of associated processes: (1) **resource mobilisation**, as the availability of resources fundamentally affects what a fund is able to support, and the range of outcomes and objectives it is able to achieve (2) the **governance** of a fund, as this is likely to shape trust in an initiative, and the extent to which it is operates in a transparent, inclusive and accountable way (3) an **investment strategy and fund allocation process** is one of the key outcomes of an effective governance structure, and it is essential to understand the formal processes and informal influences that affect how funding decisions are made (4) **Disbursement of funding and risk management** in support of approved programs is a key issue of interest, and provides insights into the mechanics of supporting robust activities, and avoiding negative impacts (5) **Monitoring, evaluation and learning processes**, in order to understand the systems that funds have established to understand impact and strengthen performance.

Next, the assessment presents a **detailed review of the active portfolio of the fund**, in order to inform subsequent analysis of the effectiveness of its outcomes, using fund self-reporting complemented with data collected on http://climatefundsupdate.org. The review considers the recipients of funding (type of institution; geographic distribution); the level at which funds have worked; Instruments through which funding was delivered (grants, performance based grants; concessional loans, guarantees, equity, etc); and the types of technologies and approaches that have been supported. On the basis of the portfolio review, we consider five interlinked components that are likely to shape the outcomes of global climate funds. We consider whether the fund has been able to work a variety of (6) **scales** from global to local, and support both small and large size projects that can be replicated and scaled up. We also consider the funds approach to engaging with (7) **enabling environments,** and whether it has been able to address underlying policy, regulation and governance that affects the long term viability of low carbon and climate resilient interventions. Next, we consider the (8) catalytic effects of the fund, particularly in with respect to the private sector, recognising the diversity of ways in which investment and implementation capacities may be harnessed in support of low carbon climate resilient development. Recognising the central importance of finance for (9) **innovation** to global efforts to respond to climate change, we consider the extent to which climate funds support innovative technologies and approaches, including at the local level. Finally, we consider the role of the fund in fostering (10) **national**

ownership and leadership, seeking to understand the role that national institutions have played in identifying funding priorities, and how well its funding has been aligned with emerging national climate change and development priorities. In completing this analysis, we draw on primary interviews with stakeholders in the fund (including administrators, governing committee members, and civil society observers), and complement it with selective case study examples that shine light on the approaches that have been taken. Where data availability allows it, we seek to complement this qualitative analysis with quantitative achievements. Finally, the assessment analyses **the role of the fund in the global international climate finance architecture**, and the particular value that it has added.

Our framework suggests some key considerations relevant for each of these components of the effectiveness analysis. Not all of these considerations will necessarily be relevant for all funds, and are intended to be applied subjectively. Nevertheless, the components and considerations should provide a basis for a comparable analysis of the achievements of diverse fund, and allow assessments to highlight key lessons and insights that relate to each component of the framework. These insights will be presented in a summary assessment or "report card", as in Figure 2 below.

Audience

The primary audiences for these assessments are technically minded stakeholders involved in delivering and managing climate finance, including fund administrators, governments, researchers and civil society organisations from both developed and developing countries. Future research products may seek to highlight key messages of interest to the private sector and the general public.

Approach

These assessments are completed with modest resources in a constrained time frame, and therefore present a snapshot of key issues at a given moment in time. They are released as working papers in order to prompt debate, and will be refined to respond to feedback received. Our aspiration is to update these assessments on a periodic basis, in order to capture new developments, and deepen our analysis. Key findings from these assessments will be incorporated into fund descriptions on http://climatefundsupdate.org

	FUND PURPOSE AND OBJECTIVES / THEORY OF CHANGE *Brief summary of origins, objectives, approach*			
		Findings - qualitative discussion- summary	Key figures	
SPENDING	**1. Resource mobilisation**		Amount of funding + percentage of pledged funding deposited	INSTRUMENTS Brief discussion of the range of instruments used, and its implications for what the fund has been able to achieve
	2. Voice and administration		-Number of developed and developing countries on the board -Fund administration costs	
	3. Investment Strategy and Allocation		-Sectors / types of projects primarily supported	
	4. Disbursement and Risk Management		-Disbursement rates (percentage of approved funding disbursed; number of months from project approval to first disbursement).	
	5. Monitoring, evaluation, and learning		Any aggregate level results reported so far (GHG emission reductions, adaptive capacity, etc)	
OUTCOMES	**6. Scale** **-level** **7. -size**			
	Enabling environments			
	8. Catalytic impacts			
	9. Innovation			
	10. National ownership and sustainability			
	ROLE IN THE GLOBAL CLIMATE FINANCE ARCHITECTURE *Short summary discussion*			

Annex II: Typology of instruments to support private investment in low carbon and climate resilient sectors and approaches

The table below presents a simplified typology of the range of instruments that have been used to drive private investment in to low carbon and climate resilient sectors and approaches. Such a typology might be used to complete a diagnostic at recipient country level that helps identify where public sector finance can best fill gaps, and leverage private investment.

Sector / Source of capital[9]	**Debt (OTC and market traded etc.)**		**Equity (listed and unlisted – including balance sheet finance)**		**Guarantees / loan insurance**		**Insurance (including export credit insurance)**		**Grants (including philanthropy and corporate social responsibility)**	
Investors	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**
Mature renewable projects (onshore wind, solar PV)	**Est**	**Est**	Em	**Est**	**Est**	Lim	Lim	**Est**	**Est**	**Est**
Maturing renewable projects (geothermal and biomass power)	Em	Em	Em	**Est**	**Est**	Lim	Lim	**Est**	**Est**	**Est**
Developing renewable projects (offshore wind or CSP)	Em	Lim	Lim	**Est**	Em	Lim	Lim	**Est**	Em	Em
Industrial efficiency / Efficient FF generation projects	Em	Em	Em	Em	Em	Lim	Lim	**Est**	Em	Lim
Sustainable buildings	Em	Em	Lim	Em	Em	Lim	Lim	**Est**	Em	Em
RE / EE equipment	Lim	**Est**	Lim	**Est**	Em	Lim	**Est**	Em	Em	Em
Sustainable transport solutions (BRT, Rail)[10]	Em	Lim	Lim	Lim	**Est**	Lim	Lim	**Est**	**Est**	Lim
Waste and water management	Em	Lim	Lim	Lim	**Est**	Lim	Lim	**Est**	**Est**	Lim
Sustainable agriculture and forestry	Em	Em	Lim	Lim	Lim	Lim	Lim	**Est**	Em	**Est**
Climate proofing (of infrastructure)[11]	Lim	Lim	Lim	**Est**	Lim	Lim	Lim	Em	Em	Lim

Key: **Est established**[12] **Em emerging** **Lim limited**

Sources: IFC 2011, Nakhooda, Watson and Whitley 2012, and authors' additional analysis

[9] The table could be expanded by breaking out debt and equity in more detailed sub-categories, and include levels of concessionality
[10] Transport and waste/water management are often last to be privatized; public private partnerships may be elusive, and private sector participation is not always possible
[11] It may be useful to look at this in terms of specific infrastructure types (roads, buildings, power plants etc.)
[12] Specific levels of investment under each category and thresholds for ongoing monitoring need to be refined, and undoubtedly vary across countries.

References

Ballesteros, A., Nakhooda, S., Werksman, J., & Hurlburt, K. (n.d.). Power , Responsibility , and Accountability Re-Thinking the Legitimacy of Institutions for Climate Finance. Washington DC: World Resources Institute. Retrieved from http://pdf.wri.org/power_responsibility_accountability.pdf

Bird, N., & Glennie, J. (2011). Going beyond aid effectiveness to guide the delivery of climate finance. London.

Bird, N., Tilley, H., Trujillo, N. C., Tumushabe, G., Welham, B., & Yanda, P. (2013). Measuring the effectiveness of public climate finance delivery at the national level. London.

Brooks, N., Anderson, S., Ayers, J., Burton, I., & Tellam, I. (2011). Tracking adaptation and measuring development. London.

Brown, J.. (2011). Improving the Effectiveness of Climate Finance: A Survey of Leveraging Methodologies. ODI. London.

Buchner, B. K., Heller, T. C., & Wilkinson, J. (2012). Effective Green Financing : What have we learned so far ? Climate Policy Initiative. Venice.

Buchner, B., & Wilkinson, J. (2012). Public Climate Finance : A Survey of Systems to Monitor and Evaluate Climate Finance Effectiveness Climate Policy Initiative, (July).

Dubosse, N., & Calland, R. (2011). Beyond the Jargon: The Governance of Climate Finance.

Chaum, M., Faris, C., Wagner, G., & Brown, J. (2011). Improving the Effectiveness of Climate Finance : Key Lessons.

Chevallier, R. (2011). Revisiting the Principle of National Ownership: Reflections on Climate Finance. Pretoria.

Clapp, C., Ellis, J., Benn, J., & Corfee-Morlot, J. (2012). Tracking Climate Finance: What and How? Paris.

Climate Eval. (2012). Approach Paper: Guidelines for Climate Mitigation Evaluations. Washington DC: Global Environment Facility.

Climate Investment Funds Evaluation Oversight Committee. (2012). Independent Evaluation of the Climate Investment Funds Approach Paper. Washington DC.

COWI and IIED. (2009). Joint external evaluation of the Operation of the Least Developed Countries Fund for Adaptation to Climate Change. Copenhagen.

Davis, C., & Daviet, F. (2012). Investing in Results : Enhancing Coordination for More Effective Interim REDD + Financing.

DeNevers, M. and Birdsall, N. (2012). Adaptation Finance: How to Get Out from between a Rock and a Hard Place. Center for Global Development. Washington DC.

Diarra, G. (2011). Aid unpredictability and absorptive capacity : analyzing disbursement delays in Africa. Economics Bulletin, 31(1), 1004–1017.

Dixit, A., Mcgray, H., & Desmond, M. (n.d.). Ready or Not: Assessing Institutional Aspects of National Capacity for Climate Change Adaptation.

Eberhard, A., & Tokle, S. E. (2004). GEF Climate Change Program Study. Washington DC.

ESMAP. (2012). Planning for a Low Carbon Future: lessons learned from seven case studies. Washington DC.

Fankhauser, Sam, Bowen, A., Calel, R., Dechezleprêtre, A., Grover, D., Rydge, J., & No, W. P. (2012). Who will win the green race ? In search of environmental competitiveness and innovation, (111), 1–33.

Fankhauser, Samuel, & Burton, I. (2011). Spending adaptation money wisely. London.

Fransman, M. (2008). Finance and Innovation.

Gates, B. (2011). Innovation With Impact: Financing 21st century development, (November).

GEF. (2005). Cost Effectiveness Analysis in GEF Projects. Washington DC.

GEF UNDP UNEP. (2005). National Capacity Self-Assessment. Washington DC.

GEF Evaluation Office. (2006). Climate Change Program Study 2004: Summary. Washington DC.

GEF Evaluation Office.(2012). Overall Performance Study of the GEF 5.

Ghosh, A., & Müller, B. (2012). Mobilizing the Private Sector: Quantity Performance Instruments for Public Climate Funds. Washington DC.

Gray, S. (n.d.). The Green Climate Fund and private finance : Instruments to mobilise investment in climate change mitigation projects, 1–27.

Grubb, M. (2004). Technology Innovation and Climate Change Policy : An Overview of Issues and Options. KEIO Economic Studies, 41(2), 103–132.

Hardcastle, P., & Watson, C. (2011). Discussion of Effectiveness of Multilateral REDD + Initiatives (Vol. 44). London.

Holdren, J. P. (2006). The Energy Innovation Imperative, 3–23.

Independent Evaluation Group (IEG). (2012). Adapting to Climate Change: Assessing the World Bank Group Experience. Washington DC.

Isenman, P. (2011). Architecture, Allocations, Effectiveness and Governance: Lessons from Global Funds.

Kellett, J., Court, K., & Drive, J. (n.d.). Synthesis report Analysis of financing mechanisms and funding streams to enhance emergency preparedness Synthesis report Analysis of financing mechanisms and funding streams to enhance emergency preparedness.

Levine, S., Ludi, E., & Jones, L. (2011). Rethinking Support for Adaptive Capacity to Climate Change. London.

McGray, H., & Spearman, M. (2011). Making Adaptation Count: Concepts and Options for Monitoring and Evaluation. Eschborn. Retrieved from http://pdf.wri.org/making_adaptation_count.pdf

Mooij, R. De, Parry, I. W. H., & Keen, M. (2012). Fiscal policy to mitigate climate change - a guide for policymakers. Washington DC.

Mulugetta, Y., & Urban, F. (2010). Deliberating on low carbon development. Energy Policy, 38(12), 7546–7549. doi:10.1016/j.enpol.2010.05.049

Nakhooda, S., Carvalho, M., & Taschini, L. (2012a). Mitigation Finance, (October).

Nakhooda, S., Calland, R., Watson, C., and VanRooij, J. (2012b). Readiness for Effective Climate Finance. London: ODI Africa Climate Finance Hub and GIZ.

Neuhoff, K., Fankhauser, S., Guerin, E., Charles, J., Jackson, H., Rajan, R., & Ward, J. (2010). Structuring International Financial Support for Climate Change Mitigation in Developing Countries. Berlin.

O'Sullivan, R., Szocs, E., Streck, C., Meijer, E., & Bracer, C. (2011). Creation and Evolution of Adaptation Funds.

OECD. (2000). Donor Support for Institutional Capacity in Development: Lessons Learned. Paris.

OECD. (2010). Evaluating development cooperation: Summary of key norms and standards. Paris.

OECD. (2011a). Ownership of Development Policies and Strategies. 2011 Survey on Monitoring the Paris Declaration (pp. 29–41). Busan: OECD Publishing.

OECD. (2011b). Busan Partnership for Effective Development Cooperation: Statement of the Fourth High Level Forum on Aid Effectiveness. Busan.

OECD. (2012). Development Perspectives for a Post-2012 Climate Financing Architecture. Paris.

Prowse, M., & Snilstveit, B. (2010). Impact Evaluation and Interventions to Address Climate Change: A Scoping Study. London.

PwC, Winrock, Climate Focus, & IUCN. (2011). Funding for forests : UK Government support for REDD+. London.

Ramalingam, B., Scriven, K., & Foley, C. (n.d.). Innovations in international humanitarian action.

Rights and Resources Initiative, & Rainforest Foundation Norway. (2009). Foundations for effectiveness: A framework for ensuring effective climate change mitigation and adaptation in forest areas while ensuring human rights and development. Washington DC.

Siegel, J. R., & Strong, A. (2011). Harnessing Energy-Technology Innovation in Developing Countries to Achieve Sustainable Prosperity Background Paper World Economic and Social Survey 2011, 1–37.

Tanner, T., & Allouche, J. (2011). Towards a New Political Economy of Climate Change and Development. IDS Bulletin, 42(3), 1–14. doi:10.1111/j.1759-5436.2011.00217.x

UNECE. (2009). Policy Options and Instruments for Financing Innovation - A Practical Guide to Early Stage Financing. Geneva.

UNEP. (2011). Innovative climate finance: Examples from the UNEP Bilateral Finance Institutions Climate Change Working Group.

UNFCCC. (2007b). Review of the experience of international funds , multilateral financial institutions and other sources of funding relevant to the current and future investment and financial needs of developing countries.

UNFCCC. (2012a). Report on the workshops of the work programme on long-term finance. Bonn. Retrieved from http://unfccc.int/resource/docs/2012/cop18/eng/03.pdf

UNFCCC. (2012b). Financing climate change action: Investment and financial flows for a stregnthened response to climate change. Bonn: UNFCCC.

Urban, F., & Wolcott, S. (2009). Learning for Climate Change Mitigation Finance from Development Assistance. Cambridge.

Venugopal, S., & Srivastava, A. (2012). Moving the fulcrum: a primer on public climate finance instruments used to leverage private capital. Washington DC.

Watson, C. (2012). Defining climate-related forest activities, finance and expenditure in national budgetary systems, (September).

World Bank. (2010). Generating the Funding Needed for Mitigation and Adaptation. World Development Report. Washington DC: World Bank.

Zazueta, A. (2012). Impact Evaluation of the GEF Support to Climate Change Mitigation : Transforming Markets in Major Emerging Economies Approach Paper Approved by Rob D . van den Berg , Director , GEF Evaluation Office Contacts, (June), 1–23.

Acknowledgements

This paper has benefitted from the generous time, insights and inputs of a many colleagues, particularly Charlene Watson. Tom Mitchell, Nella Canales Trujillo, Shelagh Whitley, Lindsey Jones, Emily Wilkinson, Ari Huhtala, and Neil Bird at ODI, who provided valuable insights that have informed various iterations of this paper. Barbara Buchner and Jane Wilkinson of the Climate Policy Institute, Richard Calland of the Africa Climate Finance Hub, Athena Ballesteros and Dennis Tirpak of the World Resources Institute, and Maya Forstater and Paula Silva Villanueva provided very helpful inputs on various drafts of this paper. This analysis is released as a working paper to spark discussion and debate. All views expressed are the author's responsibility, as are any errors.

Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ
UK
Tel: +44 (0)20 7922 0300
Fax: +44 (0)20 7922 0399
Email: publications@odi.org.uk
Website: www.odi.org.uk
ISBN 978 1 909464 20 9
Working Paper (Print) ISSN 1759 2909
ODI Working Papers (Online) ISSN 1759 2917

This material has been funded by UK Aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.