

IMPROVING THE EFFECTIVENESS OF CLIMATE FINANCE: KEY LESSONS

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This paper is part of a research project led by a consortium of researchers from Environmental Defense Fund, Climate Policy Initiative, Brookings Institution, and Overseas Development Institute focused on the topic of the effectiveness of climate finance. Papers will follow which set out in greater detail the current practices used to estimate, measure, monitor and disseminate the impact of public and private climate finance. Another paper surveys the different ways leverage ratios are calculated and reported for climate finance instruments and projects.

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Executive Summary

Flows of finance to developing countries to support climate mitigation and adaptation efforts are growing in speed and scale, toward the target formalized in the Cancún Agreements to increase flows from developed to developing countries to \$100 billion a year by 2020. Ensuring that this money is well spent, and hence maximizing its impact and effectiveness, will of course be critical for achieving outcomes and maintaining support. However, the tools and methods that are now being used to estimate, measure, monitor and disseminate the impact of public climate finance will not be sufficient to support this expansion. With many international institutions and bilateral agencies boosting their climate portfolios, as well as the creation of the Green Climate Fund, the time is ripe to examine current practices to improve the effectiveness of climate finance.

This paper presents an overview of existing practices by summarizing the findings from an extensive survey of various institutions¹, drawing on the lessons learned from development finance, the public and private activities of international financial institutions and experience with market-based instruments. The paper mainly focuses on mitigation, and it seeks to discern lessons for policymakers by addressing two key questions: What makes climate finance effective? and what tools, methods or systems might improve the effectiveness of climate finance?

What Makes Climate Finance Effective?

Lessons from existing practices suggest that climate finance will be more effective when:

- It promotes clear objectives that are shared among key stakeholders.
- It supports activities that have a powerful transformative or demonstration effect.
- It ensures the most effective balance between public and private capital.
- The actions it funds incorporate a results-based approach.
- It considers cost-effectiveness – that is, actions with a larger “climate return on investment” per dollar allocated – as one of its guiding principles.
- It supports actions that are nationally owned and aligned with local and national priorities.
- Funding is predictable, coordinated and less fragmented.
- It is administered transparently, with flows and results shared to promote accountability and support effective prioritization, and is supported by strong “real-time” systems to measure progress, draw early lessons, and allow modification.

What Tools, Methods or Systems Might Improve the Effectiveness of Climate Finance?

With regard to the methods and systems that might improve the effectiveness of climate finance, this study suggests that the following tools need to be developed, refined and applied:

- robust and credible ex ante and ex post estimates of the scale and cost of abatement

¹ This paper is part of a series of Climate Finance Effectiveness Background Papers, which explore particular institutions’ practices in detail.

likely to result from a particular intervention, addressing the demonstration potential and other transformative impacts;

- a common “climate effectiveness” methodology and metric, with tools, methods and systems that allow some comparison between funding proposals, institutions and activities;
- real-time evaluation of operations to enable prompt learning and corrective actions to be undertaken within the lifetime of a particular intervention, incorporating independent verification;
- systematic postaction reviews of climate activities, with lessons incorporated into the design of future actions;
- tools, methods and systems that strike a balance between the rigor of measurement systems and the related transaction and administrative costs;
- processes to estimate in advance the potential climate impact of all interventions, not just those within a “climate portfolio”;
- tools to promote transparency and the coordination of donor funding.

It will be necessary to build capacity across the relevant actors to include these additional elements required to provide more accurate and harmonized information on the effectiveness of climate finance. Current approaches provide a set of ready field experiments; exploring this knowledge will allow lessons to be learned from ongoing practices to scale up finance for a transition toward low-carbon, climate-resilient development.

State of Play

The embryonic tools and methods currently employed to measure the effectiveness of climate finance do not appear sufficient to meet the challenge of scaled-up financing flows. Overall, the problem is that current tools

- are often project-based and, thus, are unable to evaluate the effectiveness of policies or programs;
- are not geared for real-time evaluation;
- often do not provide a good understanding of the relative contributions made by different activities;
- do not consistently include both ex ante and ex post evaluations, and are often internally inconsistent; and
- are incompatible with each other, hindering common understanding and comparisons.

Keeping in mind that private and public investments clearly differ in objectives and scope, the evaluation of market-based systems is in general more rigorous than that of public finance; market systems also have cost-effectiveness built into their design by realizing lowest-cost abatement opportunities. One of the challenges in measuring the effectiveness of public climate finance is that critical long-term measures (which promote transformational change) may not be “least cost”, at least in the short term.

There are early signs of harmonization in the realm of public finance, and some methods and standards, such as ISO 14064 for greenhouse gas (GHG) accounting, are particularly influential. Most international financial institutions do not yet systematically assess carbon and more transformational impacts across all projects, but many institutions recognize the urgency and are reviewing options. Some are prescreening projects based on climate impacts to identify and promote low-carbon projects. A list of existing tools and methods is provided in the Appendix.

Lessons from Existing Practices

Development Aid Effectiveness and Climate Finance

Development aid practice has exhibited a renewed commitment to results since the disillusionment of the 1980s and 1990s, culminating with a series of agreed-on principles during the past decade dedicated to improving the impact of development assistance. However, adherence to these principles has been uneven, and results management and reporting systems are still often inadequate. Although not everyone agrees that climate finance is a form of aid, the Paris-Accra principles are nevertheless highly relevant. Their norms and disciplines have contributed to development gains and have proved suitable across different areas of support; it is likely that they will also be applicable to emerging forms of development cooperation, including those supported by climate financing.

What Makes Climate Finance Effective?

To improve effectiveness, difficult *political decisions must be made and leadership shown* by both developed and developing countries, particularly on transparency, mutual accountability and shared risk, and stronger advocacy for aid effectiveness in both donor and recipient countries.

The application of key principles for development aid included in the Paris and Accra agreements will likely improve effectiveness, including:

- *Increasing country ownership*, by integrating climate funding into national development strategies;
- *Alignment with national and community priorities*, for example, through budget support mechanisms and a greater use of in-country systems and institutions;

- *Harmonization of donor practices*, by coordinating actions and simplifying procedures; and
- *Mutual accountability and managing for results*.

Besides these principles, a number of other factors contribute to effectiveness:

- The *timing, certainty and predictability* of funding;
- *Less fragmentation*, to reduce transaction and administration costs and allow greater impact and more strategic activities. Reducing fragmentation can be achieved, in part, by moving from project-to program-based funding (which also harbors an emerging challenge, as South-South cooperation increases);
- *Greater transparency*, knowledge sharing, management and dissemination of results.

What Tools, Methods or Systems Might Improve the Effectiveness of Climate Finance?

General budget support can be seen as a tested and proven form of support that, in contrast to some of the newer approaches, is fully aligned with national systems. There are, however, significant difficulties in assessing impact; attributing specific government actions to finance provided through general support can be elusive, and assessing the impact of actions is complex.

Recent trends toward “value for money” and the maximization of impacts suggest a *heightened demand for metrics* and rigorous analysis to assess the effectiveness and impact of climate finance. Transparency is essential to a results orientation and for accountability. Climate finance methodologies and metrics can build on those developed to assess the overall effectiveness of aid, while being tailored to the specific objectives of mitigation and adaptation.

Although most climate finance is delivered on a

project basis – often for practical reasons, such as more straightforward results measurement – the broader development community has moved toward *programmatic approaches*, which should allow more strategic interventions, greater impact, and lower transaction costs.

Other Lessons

Many donors and intermediaries are turning to new types of *results-based approaches*, motivated by a clearer demonstration of “value for money”, which tie disbursements to performance. Some recipient countries criticize them for being a return to old-style conditionality. These approaches are still new and largely unproven, and good design will be very important, including appropriate monitoring and evaluation (M&E).

To encourage widespread and lasting change, policies and programs should be underpinned by complementary *policy and institutional reforms*, implemented in accordance with principles of good governance to ensure broad based national ownership.

The *proliferation of global programs* in the climate arena is of concern, both because it can exacerbate fragmentation and because global funds’ risks are not being well embedded into each country’s own programs and processes. Large earmarked funding windows bring with them the risk of causing significant distortions.

Public Climate Finance

Public climate finance usually flows from national budgets to support developing country climate actions. The bulk of it is reported through United Nations Framework Convention on Climate Change (UNFCCC) National Communications and the Organization for Economic Cooperation and Development’s Creditor Reporting System, and delivered via a number of bilateral and multilateral institutions and funds. The lessons examined below are drawn from the early practices of the Asian Development Bank (ADB), the World Bank (includ-

ing the International Bank for Reconstruction and Development and the International Development Association), the Climate Investment Funds (CIFs), the Global Environment Facility (GEF), Germany's KfW Entwicklungsbank, the French Development Agency (Agence Française de Développement, AFD), and the Norwegian Agency for Development Cooperation (Norad).

Financing for climate action in developing countries is an increasing priority for public financing. Despite a recognized need for effectiveness and mutual accountability, *reporting and monitoring processes, and let alone tools to measure effectiveness, are inadequate and patchy*. Significant efforts are under way to improve systems to measure the effectiveness of international climate finance. In Cancún, the parties agreed to improve reporting methods and review processes. Public finance institutions are beginning to harmonize their evaluation practices, with a view to conducting joint evaluations in the future, particularly for jointly funded efforts.

What Makes Climate Finance Effective?

Climate finance can be effective in many ways, for instance, directly by reducing GHG emissions or, indirectly, by promoting structural change, by creating an enabling environment, by building capacity and institutions and by catalyzing private investment. A better understanding of these dimensions and impacts, particularly if translated into key principles than can be applied, will likely contribute to more effective spending.

Improving effectiveness requires considerable changes in institutions' and countries' mindsets, particularly related to *transparency, mutual accountability and opening up to a wider range of actors*.

To achieve these changes, strong M&E systems are required, which

- lead to *improved data* related to climate projects and their impacts;
- *systematically* look at the *climate and*

transformational impacts of projects and investments at a *larger scale*;

- focus on the *results achieved* with the money spent;
- emphasize the component of *verification*, including also independent entities; and
- support *real-time assessment* to enable actors to continuously learn lessons.

The World Bank, in particular, is increasingly making use of *development policy loans* to support structural economic reform – including loans targeted specifically at the energy or electricity sector or that address the climate change policy agenda (e.g., in Indonesia). The issue of perceived conditionality arises here again.

What Tools, Methods or Systems Might Improve the Effectiveness of Climate Finance

Climate Specific

Some of the multilateral institutions reviewed, such as the ADB, rely on generic organization-wide evaluation and environmental assessment methods that do not necessarily capture specific climate-related outcomes. *Climate specific tools* are more likely to be able to support improved climate effectiveness. Some bilateral organizations have made progress in developing tools, methods and processes to build climate finance effectiveness into their decisionmaking. The AFD, for instance, has developed a tool and a standard methodology for the ex ante measurement of the order of magnitude of GHG emissions generated, reduced or avoided by a project over its lifetime.

Independent Evaluation

Most public finance institutions have well-developed *independent evaluation entities* and processes. In the 2000s, many institutions established internal units with greater autonomy and independence – for example, the ADB's Independent Evaluation Department, the World Bank's Independent Evaluation Group, KfW's Independent Evaluation Department and the GEF's Evaluation Office.

Although these organizations conduct reviews across a broad range of programs, they are increasingly focusing on climate-related operations, and are building relevant expertise and practices.

Systematic Climate Evaluation of Projects Outside the Climate Portfolio

Not all organizations systematically evaluate the climate impacts of all projects; some focus only on sectors they have identified as “climate-specific”. The ADB and the World Bank appear to capture only information on intended or unintended climate mitigation or adaptation outcomes where these are part of a project’s objectives, and the World Bank incorporates only emissions increases into its environmental assessments. The World Bank also has plans to incorporate environmental externalities in project appraisals for selected energy, transportation, and forestry sector projects, including, for example, applying GHG analysis to the International Finance Corporation’s investment portfolio. A broader application of tools that measure climate effectiveness to projects outside the climate portfolio, especially in the energy sector, would increase the overall understanding of the climate effectiveness of an international financial institution’s portfolio.

Bilateral organizations are establishing good practices that others might follow. *Some bilateral organizations now screen all project proposals on the basis of climate impact.* For example, as of January 1, 2011, KfW applies a “climate safe” screening assessment to all new projects, to address the projects’ potential climate change impacts – including the recipient country’s commitment to such issues – as well as determine whether they contribute to climate protection and/or adaptation. The European Bank for Reconstruction and Development requires an assessment of GHG emissions baseline (preinvestment) and an estimate of postimplementation emissions for all new projects that are currently producing, or are expected to produce, significant amount of GHGs – generally, 100,000 carbon dioxide (CO₂)-equivalent tons per year or more. In recent years, the GEF has implemented resource allocation systems², wherein funding is determined by a

country’s potential to generate global environmental benefits and its capacity to successfully implement GEF projects. The AFD considers mitigation estimates (using its carbon footprint tools) in its investment decisions. The ADB’s 2010 Clean Energy Financing Partnership Facility Annual Report calls for closer examination of project proposals in the project selection process in order to prioritize scarce resources.

Evaluations at Scale

Most public finance organizations are increasingly conducting impact evaluations at the country or portfolio level, notably the World Bank’s Independent Evaluation Group, the GEF and the ADB’s Independent Evaluation Department. This evolution will require, and possibly help deliver, mitigation assessment tools that operate beyond the project scale. For example, the ADB’s recently introduced results-oriented country portfolio reviews may improve formative evaluation and provide scope to measure climate finance effectiveness.

A Focus on Results

Some promising results frameworks (tracking inputs, outputs and outcomes through impacts) are emerging and are providing scope to measure climate finance effectiveness. For example, the CIFs have put considerable effort into designing appropriate results frameworks – indicators are elaborated with baselines and targets, details on measurement aggregation and means of verification. Similarly, the GEF has introduced a result-based management approach, as well as approved a renewed M&E policy with mandatory minimum requirements for all projects, which highlights its strong commitment to continuously improve and develop mechanisms to most appropriately measure the effectiveness of its interventions. In addition, the GEF has developed an adaptation-specific, result-

² During the Fourth Replenishment (2006-10), the GEF used the so-called Resource Allocation Framework (RAF), which was replaced by the System for Transparent Allocation of Resources (STAR) for the Fifth Replenishment period (2010-14).

based framework and a tracking tool to address the specific M&E needs of adaptation efforts.

Real-Time Processes

It appears that few, if any, public finance organizations assess GHG impacts in “real-time” during the implementation phase. Such assessments, which promote early feedback and immediate lesson learning, could allow rapid project refinement, for example, to correct for unexpected impacts.

Improved Data Collection

Most organizations agree on the need for *better climate data collection*, including preactivity assessments, M&E and ex post evaluation. The World Bank’s Independent Evaluation Group recently called for improved data collection (in the energy and forestry sectors, in particular), suggesting that data are currently insufficient for the purposes of evaluating the effectiveness of climate finance. The current UNFCCC reporting framework makes it difficult to properly evaluate the effectiveness and productivity of climate support programs. This has been recognized as a major weakness, and recent decisions ask for a revision of the guidelines and methodologies related to finance, aiming to pave the way for a stronger assessment of the effectiveness of support.

Transparency and Dissemination

The transparency of decisionmaking varies, but is not currently sufficient to enable organizations to share best practices on crucial issues, such as what levels of concessionality are necessary to trigger low carbon investment. KfW, for instance, does not disclose detailed information on its procedures or on the specific indicators and thresholds on appraisal criteria for its climate change projects. All its project appraisal reports are classified as confidential and are submitted to the German government for approval, but they are not made publicly available. The Clean Technology Fund investment criteria require all proposals to provide information that is directly related to the potential effectiveness of the proposed project. It is not clear, however, to what extent project approval decisions are based on this evidence.

The Private Financing Arms of International Financial Institutions

This section focuses on three international financial institutions (IFIs) – the International Finance Corporation (IFC), an affiliate of the World Bank; the European Bank for Reconstruction and Development (EBRD); and the European Investment Bank (EIB) – which all tend to use public sector finance to catalyze private sector investments.

The private sector operations of these IFIs have focused on using their balance sheets as well as specialized climate funds to support demonstration projects at a sufficient scale to help transform markets and thus pave the way for further private investment. They use a variety of risk mitigation tools to encourage private investment and to tap into public subsidies like those provided by the specialized climate funds (e.g., the GEF and the Clean Technology Fund) to close the gap between fossil-fuel and lower carbon alternatives. They have also more recently been developing new tools and financing structures – like investing alongside private equity in specialized clean technology funds – with the aim of catalyzing private sector investment at scale. Given the broader objective of supporting market transformation and the use of public funds to attract significant private capital, indicators such as leverage are particularly critical to assessing the effectiveness of the IFIs’ private sector climate operations.

These three IFIs have developed detailed methodologies and tools to assess environmental sustainability and the GHG impacts of the climate-sensitive projects they support. Assessment of the effectiveness of climate finance for IFIs’ private sector operations is complicated by the broad range of financing instruments that these institutions use, as well as the greater confidentiality with which data are held. On balance, the GHG impact of such efforts – which are often infrastructure focused – should be easier to measure than contributions to demonstration projects or capacity

building. In climate-sensitive sectors, methodologies are relatively new, but efforts are under way to implement more specific GHG accounting methods. Assessment against the market transformation objective is weak.

Several positive developments are emerging from this sector:

- All relevant organizations have identified *climate as a key area of future policy focus*. Efforts are under way to improve climate metrics and monitoring, identify activities with a “high climate impact”, and rebalance portfolios toward these new opportunities;
- These private financing arms of IFIs are *developing approaches* for measuring and integrating the effectiveness of their climate programs. The EBRD has assessed and reported on the GHG impact of its direct investments (both loans and equity) since 2003. Since 2008, it has had an explicit objective of promoting the reduction of project-related GHG emissions, and it requires an assessment of a GHG baseline and target for all new projects with significant GHG emissions. The EIB has published a guidance note with a methodology for measuring the impact of its projects on GHG emissions, and it has begun instituting a shadow price for carbon. The IFC has developed guidance for calculating GHG impact for use by project sponsors and internal evaluations. This includes a transparent online tool that builds on the AFD’s methodology.
- The private sector arms of the IFIs are *cooperating to achieve greater coherence* in their appraisal and evaluation methodologies. A Multilateral Financial Institutions Carbon Footprint Working Group is working to achieve greater coherence in their GHG accounting practices. Differences under discussion relate to the threshold for assessing GHG emissions; the definition of which sectors are to be considered “climate friendly” for the purposes of reporting trends in climate

finance as opposed to trends in the overall portfolio; and how to avoid double-counting when more than one IFI is involved in a project.

What Makes Climate Finance Effective?

The private sector arms of the IFIs should avoid “crowding-out” the private sector. They should not move into markets where the private sector is already investing, unless this is required by risk/return trade-offs.

The private sector arms of the IFIs should support the development of new markets. Market transformation should be an explicit goal.

Climate effectiveness indicators should capture the impact on reductions of GHG emissions, as well as the effectiveness in leveraging the private sector and achieving market transformation.

The private sector arms of the IFIs should be encouraged to focus on assessing the impact of GHG emissions on their full portfolios, and not just on those that are supported by specialized climate funds.

What Tools, Methods or Systems Might Improve the Effectiveness of Climate Finance?

Climate-Specific

Tools and systems should be focused on climate effectiveness. Current tools and methods that have evolved from environmental assessment tools may not be fit for this purpose, and may introduce systematic biases away from climate-specific impacts. For example, the EBRD’s Evaluation Department is evolving from an original mandate to focus on environmental and social performance into climate change impact measurement. In its 2009 evaluation report, the Evaluation Department discusses project environmental performance, but not GHG impacts.

Climate Effectiveness Assessments for a Broader Range of Activities

Further, climate effectiveness should be addressed more systematically to ensure that relevant projects are assessed, not just projects currently within a “climate portfolio.” For example, though the IFC is developing a methodology for measuring its GHG footprint, it does not yet include in its project tracking systems CO₂ emissions as a standard indicator for the utilities sector, and therefore emissions are not reported for power generation. Similarly, ex post project evaluations do not systematically examine climate impacts for relevant projects, or report them in the annual reviews of operations (the World Bank’s International Evaluation Group’s thematic evaluations of the Bank’s climate programs are a notable exception).

Current portfolio projects, partially financed by these institutions, are already making an emissions impact, either positive or negative. However, *no effort is currently being made to allocate or attribute emissions, which are currently reported for the project as a whole by the EBRD and EIB. As well as risking doubling-counting, this makes it more difficult to assess the GHG impact of an institution’s climate portfolio.*

Leverage

There are no agreed-on conventions on how to use the term “leverage” and how to measure financial leverage. As such, it is difficult to compare the effectiveness of the use of public funds to “crowd-in” private capital. The appropriate level of leverage will vary depending on the type of investment and other circumstances. Developing definitions of leverage that can be used to track these criteria across all forms of climate finance should be a priority. Similarly, since one aim of the IFIs is to encourage market transformation, an operational definition, backed up by systematic M&E, should be developed.

Assessment Tools beyond the Project Scale

New tools should be developed that allow the *assessment of programmatic and policy efforts*, not

merely project-level activities. This will require tackling complex questions about creating enabling environments and demonstration effects, which are more difficult to measure than baseline-originated project assessments. This review did not uncover any tools for assessing market transformation nor for assessing climate impact across a country portfolio or policy reform. (Descriptions of selected project-based tools are given in the Appendix).

Standardization and Comparability

The standardization of tools, techniques and practices across institutions should be encouraged. Not only will this help share the effort of developing new tools and techniques, but it will be more likely to create methods that build on best practices and allow comparisons across organizations and types of programs. A number of standard practices are emerging. The IFC’s Performance Standards on Social and Environmental Sustainability have become a benchmark for other IFIs’ private sector operations. Many of the early methods (e.g., the EIB’s estimation methodology and the Verified Carbon Standard) draw on the Intergovernmental Panel on Climate Change’s guidelines, and the World Resources Institute / World Business Council for Sustainability Development’s GHG Protocol and ISO 14064.

Independent Verification

Because of the private sector nature of their operations, the IFIs tend to focus on ensuring that clients that are private sector entities themselves provide the information needed to support assessments. The World Bank’s International Evaluation Group’s has noted the concern this raises about *possible conflicts of interest*, in particular that *self-assessments by the client* are not currently verified independently to ensure compliance and results.

Real-Time Evaluation

M&E, and systematic data collection needed to support it, is patchy. Few, if any, organizations are able to monitor GHG emissions impacts in “real-time” during project implementation, which would allow refinements.

Market-Based Instruments

Significant lessons can be drawn from the existing and emerging international carbon market's offset mechanisms. The Clean Development Mechanism (CDM), established under the Kyoto Protocol, has led to the most comprehensive and mature set of methodologies and systems for ex ante estimates and ex post verifications of GHG emissions reductions at the project level.

Similarly, voluntary carbon markets - for example, under the Chicago Climate Exchange (CCX) - have developed some useful methodologies and processes. The emergent field of REDD+ (i.e., reducing emissions from deforestation and forest degradation in developing countries), is constructing robust systems for the creation and verification of offsets.

What Makes Climate Finance Effective?

Building National Capacity for National Execution

Both baseline setting and M&E *require substantive data capability and expertise*, which may need to be built in new markets. Accurately estimating climate impact in advance requires a foundation of current data and capability, including econometric data on key drivers and other factors. There has been relatively little national capacity building effected through the CDM, where most of the required expertise comes from a few specialized consultancies. Well-functioning performance evaluation systems and national capacity will be prerequisites for improving the effectiveness of climate finance methods.

Early empirical studies of the effectiveness of REDD+ have tended to focus on evaluating the in-country institutional capacity to operate in this complex policy and technical space. They make clear that not only is *in-country capacity* a prerequisite for REDD+; it can be thought of as a dimension of effectiveness itself.

National and Local Ownership

From the early REDD+ experience, there is at least anecdotal evidence to suggest that *local support and buy-in* for efforts that are designed with local conditions in mind are likely to increase the effectiveness of policy interventions. Community participation and monitoring, alignment with local priorities and policy settings, and broad and deep stakeholder engagement all appear to increase the likelihood that interventions will achieve their aims. Similarly, demonstrable local benefits and co-benefits are likely to increase climate finance effectiveness, although assessing and managing co-benefits can complicate the assessment of interventions on purely abatement grounds.

Increasing Impact - Making Larger-Scale Interventions and Lowering Transaction Costs

There are broader criticisms of current market-based mechanisms. First, because they are project-based, they *fail to reduce emissions at scale* in developing countries.

CDM projects are known for having *high transaction costs*, which tend to be particularly cumbersome for small and medium-sized projects. Transaction costs include the costs of monitoring and verification, validation, project design document approval, legal due diligence, and so on.

There is a balance to be struck between *transaction costs* and procedural or institutional barriers to investment *and the quality and comparability of the GHG emissions reductions realized*. The lessons learned from the development of the Verified Carbon Standard mirror those gleaned from the CCX and provide support for those reaped from the CDM; higher standards for measurement, reporting, and verification, independence of verification and validation bodies, rigor of methodological development and adoption, and significant oversight are very costly, both in terms of time and money, and may prevent significant investment in offset project development. However, these standards provide the basis for an assertion of comparability between the emissions reductions achieved.

What Tools, Methods or Systems Might Improve the Effectiveness of Climate Finance?

Meta-Rules

The carbon market bodies have developed what might be called “meta-rules”: *processes for evaluating, updating and overseeing measurement methodologies*. For the CDM, any new methodology must be approved by the CDM Executive Board. For the CCX Offsets Registry Program, the Offsets Committee and the Forestry Committee are responsible for assessing new protocols, changes to existing protocols, rule interpretations, and the validation of non-standardized projects; and the Offsets Program undergoes continuous revision of rules and procedures based on recommendations from the two advisory committees. These arrangements make it more likely that methodologies will be systematically and consistently improved.

Improving Baseline Setting and Assessing Additionality

Addressing challenges in baseline setting will improve our understanding of climate finance effectiveness. GHG emissions reduction estimates are only as good as the methods used to calculate the baseline. Appropriately incorporating the effects of domestic policies and regulations, without creating a perverse incentive against pro-climate domestic regulation, is an ongoing challenge.

“*Additionality*” is a key threshold requirement for projects to be eligible for the carbon market. The key threshold question is: “would this project have been undertaken without the benefits of the market incentive?” Under the CDM, the designated operational entity must assess “the evidence which supports the claims that the project activity would not take place without the benefits of the CDM” through a number of defined steps. These processes, though rigorous on paper, have been criticized because they require project proponents to make assumptions that can hardly be verified, are inappropriate or impractical at a project level because they fail to take into account the general

policy context of a country, or are not supported by ex post evaluations of additionality.

Applying High-Quality Data Collection Practices More Broadly

Climate finance effectiveness could be improved if more activities adopted *systematic approaches to emissions data collection and M&E* in market-based activities. Projects under the CDM must prepare a monitoring plan that defines how data on GHG emissions reductions will be collected and stored, and how calculations will be made to evaluate emissions periodically throughout the life of the project. The monitoring plan must include a description of the formula used to estimate project emissions (for each gas, source, formulae/algorithm, CO₂-equivalent emissions units).

Independent Verification

Carbon market measurement systems use *third-party verifiers* to validate project design and verify GHG emissions reductions. Yet there is still scope for conflict of interest to erode the integrity of the measurement systems. For example, under the CDM, designated operational entities are chosen and paid by project proponents, which creates a risk that assessments will not be conducted objectively. Third-party verification processes are critical for validating the project’s emissions reductions, but they need to be carefully structured and conducted to avoid conflicts of interest.

Developing Methods to Attribute Climate Outcomes to Contributors

As with private climate finance, discussed above, it is not always straightforward to *attribute climate outcomes* in activities where there are several contributing partners. For example, with REDD+, transaction, implementation and administration costs represent only a part of the total cost of the abatement (by one estimate, about \$1 per metric ton), of which the opportunity cost (the forgone opportunity to use the land for another use) is by far the largest component. Benefit sharing – for example, the allocation of resulting credits between partners – will be difficult. Tools for measuring the effectiveness of climate finance

must grapple with how to account for contributions to the cost of abatement from other sources, including national action, and how to apportion the cost of capacity building.

Conclusions: Key Hurdles, Good Practices and Next Steps

The major analytical gap in today's landscape of climate finance relates to our understanding of the effectiveness of climate finance efforts³. This limited understanding is the result of scarce data – particularly at the instrument, disbursement, and use levels – and inconsistent methodologies. As climate finance flows pick up speed and scale, it becomes essential to find the most appropriate ways to measure their effectiveness across various projects and activities.

This study has drawn on an extensive survey of the current methodologies and tools used to evaluate the effectiveness of climate finance. It has demonstrated that at present we are faced with a set of different evaluation tools and methodologies that hinder common understanding and comparisons, posing hurdles to improvement.

Key Hurdles to Overcome

- Generally, data collection and assessment methodologies are insufficient to evaluate the effectiveness of climate finance.
- Market transformation is a goal of many initiatives, yet the concept is difficult to define, let alone measure.
- Climate finance will need to address concerns among recipient governments and allied voices that focusing on the

effectiveness of climate finance represents a return to old-style conditionality.

- Transparency varies, but most institutions could do more to increase the public reporting, disclosure and communication of climate assessments of their activities.
- Collecting and analyzing data will require substantive capability and expertise, which may need to be built up in new markets.
- Very detailed monitoring can substantially increase the transaction costs of climate action, and even more so for smaller, project-based activities.

However, the available methodologies and approaches shed light on elements that are needed to understand the effectiveness of climate finance, such as clear common definitions and objectives, the alignment of international and national public investment flows with each other and with private investments, results-based and nationally owned activities with a powerful transformative or demonstration effect, and rigorous evaluation that allows lessons to be learned. Emerging good practices demonstrate how to include these elements.

Emerging Good Practices

- Many institutions have become active in addressing the urgent need for a more methodical estimation and measurement of the climate impact of their activities.
- A variety of approaches to estimating and measuring climate impacts is currently being tested, including new tools for the ex ante appraisal and ex post evaluation of projects' GHG impacts.
- An increasing use of joint evaluations has been noticed; they help develop synergies in evaluation procedures, and they enhance the credibility of findings as well as the awareness of mutual best practices.
- Political leadership and civil society engagement is increasing in both developed and developing countries to promote transparency, mutual accountability and aid effectiveness, including a heightened demand for credible metrics.

³ For a detailed overview of the current climate finance landscape, see Barbara Buchner, Angela Falconer, Morgan Hervé-Mignucci, Chiara Trabacchi and Marcel Brinkman, *The Landscape of Climate Finance*, CPI Report (Climate Policy Initiative Venice, 2011), www.climatepolicyinitiative.org/files/attachments/177.pdf.

Next Steps

All the parties interested in the ongoing political viability and stability of climate finance also have an interest in proving its effectiveness. To help decisionmakers learn about effective ways of spending money wisely, there is a need to refine measurement methodologies and build capacity across the relevant actors. We need to concertededly share knowledge about what works and what does not, and how to measure and monitor impacts, including improving data collection and building systems and tools to estimate and measure climate finance effectiveness. Tools, methods and systems must strike a balance between the rigor of measurement systems and the related transaction and administrative costs. For this reason, the following action items call for priority treatment:

Jointly develop methodologies to estimate and better understand the different dimensions of climate finance effectiveness:

- Provide robust and credible ex ante estimates of the scale and cost of abatement likely to result from a particular intervention to support project selection.
- Incorporate real-time and ex post evaluations to allow lessons to be learned and corrections to be made within the lifetime of a project as well as vis-à-vis subsequent projects.
- Apply climate-specific tools and methods systematically to determine the climate impact (positive and/or negative) on all potential and approved projects, not just those within a predetermined “climate portfolio”.
- Develop a set of standard reporting parameters that allow interventions to be compared on the basis of a common set of “climate finance effectiveness” metrics, also across different organizations.
- Incorporate indicators, such as leverage, which are particularly critical to assessing the effectiveness of IFIs’ private sector climate operations. Developing definitions

of leverage that recognize that appropriate levels of leverage will vary across different forms of climate finance should be a priority.

- Research a better understanding of the dynamics of transformational and demonstration effects – what factors are likely to increase the transformative or demonstration impact of a climate intervention?

Build up climate evaluation capacity:

- Enhance the capacity of organizations to ensure the effective development and application of improved measurement methodologies.

Enhance transparency and support best practice sharing:

- Build an evidence-based, bottom-up database of best practices and failure stories related to climate finance.
- Ensure the transparent publication of results of evaluations to build accountability, increase available expertise, and hence increase the effectiveness of climate finance over time.
- Establish evaluation groups within donor agencies, IFIs and developing country institutions, where they do not already exist, equipped with tools and capabilities to assess climate effectiveness.
- Share knowledge and best practices – building up the “community of practice” around climate effectiveness.

Measuring the effectiveness of climate finance will be challenging and often controversial. Yet this difficulty should not dissuade us from enumerating the lessons learned and constructing a suitable set of frameworks and evaluation tools. Otherwise, we would be faced with a proliferation of inconsistent methodologies, duplications of effort, and the near impossibility of comparing interventions across projects and activities, recipient countries and donors. The various current approaches being

pursued, particularly by the private sector arms of the IFIs, provide a set of ready field experiments. Concerted efforts to explore and share this knowledge will allow both policymakers and practitioners to apply lessons from these ongoing practices to scale up finance that encourages the transition to low-carbon, climate-resilient development.

Appendix: Selected Toolkits and Methodologies

1. GEF Manual and Calculator for calculating GHG benefits of GEF projects: energy efficiency and renewable energy projects

All GEF climate change project briefs must provide an ex ante estimate of carbon emissions reductions to be realized through the intervention. The manual and calculator provide a consistent method for evaluation of emission reductions from energy efficiency and renewable energy projects.

They provide estimation methods for direct CO₂ emissions reductions achieved by investments that are directly part of the results of the projects; direct postproject emissions reductions through those investments that are supported by GEF-sponsored financial mechanisms still active after the projects' supervised duration; and a range of indirect impacts through market facilitation and development. Figure 1 shows the basic structure of the GEF methodology.

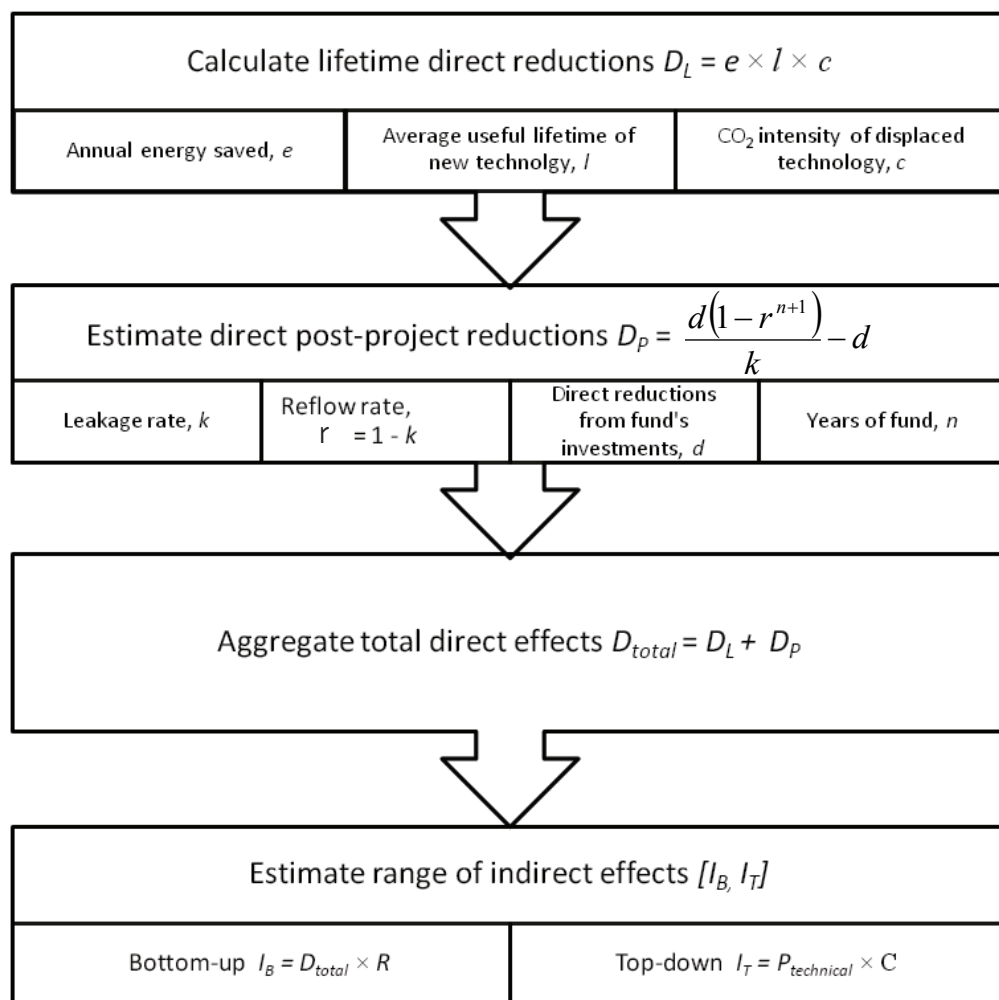


Figure 1: Standardized GEF methodology for estimating emissions reductions at the project-level

(Source: GEF, EDF analysis)

2. GEF Manual and models for calculating the GHG impacts of GEF transportation projects

GEF's manual for transportation projects, developed by the Institute for Transportation and Development Policy, provides methodologies for baseline development and the estimation of GHG emissions reductions across a range of interventions, including transportation efficiency improvement, public transportation, non-motorized transportation, transportation demand management, and comprehensive transportation strategies. The basic GEF methodology for project-level estimations of emissions reductions is transliterated into a set of Excel-based modules that collectively form the Transportation Emissions Evaluation Model for Projects (TEEMP). The modules include calculators for emissions reductions from bike sharing, bikeways, bus rapid transit, employer-based commute strategies, eco-driving, expressways, mass rapid transit, "pay as you drive," walkability improvements, parking, and commuter railroads.

The standardized GEF approach to estimating emissions reductions at the project-level shown in Figure 1 is also the essential structure employed in the TEEMP modules.

3. AFD Carbon Footprint

The AFD has developed a tool and a standard methodology to measure the carbon footprint of different types of mitigation projects, from project appraisal through investment and operation. Building upon ADEME's Bilan Carbone®, the carbon footprint tool is Excel-based and, to allow decentralized use, it aims to be simple and usable by everyone. The carbon footprint tool has been used by the AFD since 2007. Between September 2010 and February 2011, an updated version was developed in order to make it coherent with the IFC's tool (see no. 5 below) and other international standards (e.g., International Energy Agency, ISO), and to update and complete its database taking into consideration additional sectors.

4. KfW Guideline of KfW Entwicklungsbank for conducting business in an environmentally, socially and climate friendly manner ("Sustainability Guideline")

KfW's Sustainability Guideline provides guidance in conducting an environmental and social impact assessment (ESIA) and a climate change assessment to address the potential environmental/climate change impacts of projects, including a recipient country's commitment to such issues.

KfW's ESIA's consist of an initial screening for relevant environmental, climate, and/or social impacts; a scoping or assessment of identified consequences and/or risks (whereby projects and programs are categorized based on the degree and scope of expected impact); and the design and implementation of an environmental and social impact study and/or climate change adaptation, or mitigation, assessment. The climate change adaptation assessment analyses whether the partner country's capacity for adaptation can be further increased in the framework of the strategy or measure. The GHG reduction assessment consists of an evaluation of GHG emissions in the project area/sector and an estimation of the project impacts on these expected emissions. KfW does not provide any tools or estimation methodologies for baseline setting.

5. IFC Carbon Emissions Estimation Tool

The IFC's Carbon Emissions Estimation Tool has been developed to help users predict and understand the emissions profile of a potential GHG source. This Excel-based calculator, which is available online, was derived from the AFD's Carbon Tool, and it is consistent with the World Resources Institute / World Business Council for Sustainability Development (WRI/WBCSD) GHG Protocol. It calculates baseline and emissions after the project intervention and takes into account both direct (Scope 1) and indirect (Scope 2) impacts. Since February 1, 2009, the IFC has required the estimation of GHG emissions for all its new direct investments. It also plans, as a second phase, to assess activities supported through financial intermediaries. Moreover, it is developing measures of GHG intensity.

6. EBRD Methodology for Assessment of GHG Emissions

EBRD’s methodology provides guidance to consultants working on EBRD-financed projects and is available online. Assessment methodologies for specific sectors are provided. These are largely based on approaches recommended by the 1996 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories and the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories. In many cases, it uses the WRI/WBCSD GHG Protocol for its sector guidance.

7. Food and Agriculture Organization Ex Ante Carbon-balance Tool (EX-ACT)

The Food and Agriculture Organization’s EX-ACT tool generates ex ante estimations of the impact of agriculture and forestry development projects on GHG emissions and carbon sequestration. The tool is a land-based accounting system, measuring carbon stocks and stock changes per unit of land. EX-ACT comprises a set of linked Excel spreadsheets that take basic inputs on land use and management practices and generate estimations of the carbon balance with and without the intervention. Figure 2 shows the logic behind the EX-ACT tool with respect to baseline setting.

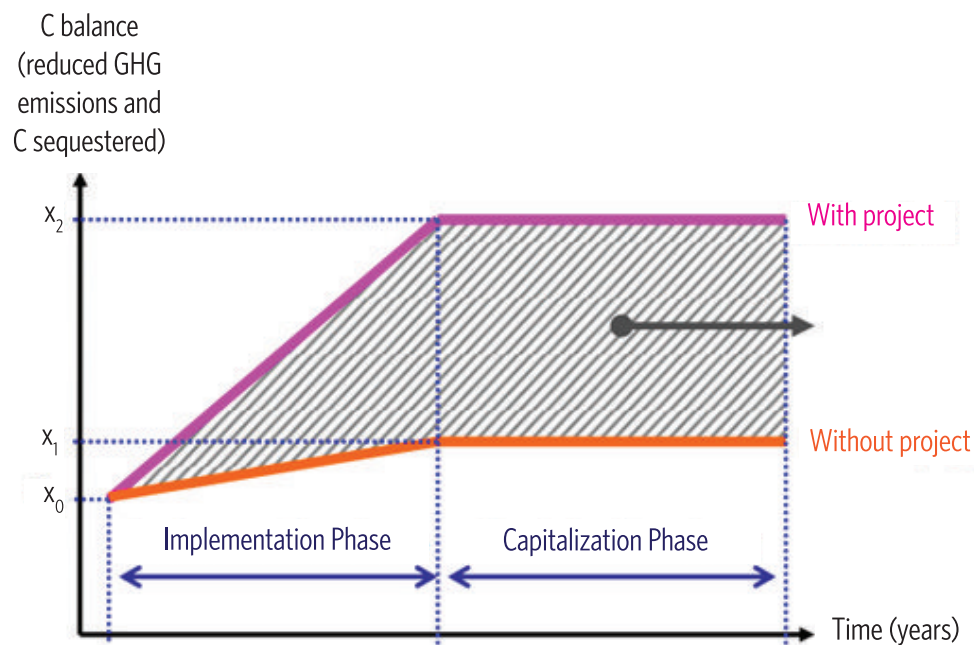


Figure 2: “Logic behind the EX-ACT tool”
(Source: FAO)