Estimating mobilized private finance for adaptation: exploring data and methods

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About CPI

Climate Policy Initiative is a team of analysts and advisors that works to improve the most important energy and land use policies around the world, with a particular focus on finance. An independent organization supported in part by a grant from the Open Society Foundations, CPI works in places that provide the most potential for policy impact including Brazil, China, Europe, India, Indonesia, and the United States.

Our work helps nations grow while addressing increasingly scarce resources and climate risk. This is a complex challenge in which policy plays a crucial role.

About OECD

The **OECD** has a long experience in measuring climate-related development finance in the broader context of financing for development. The DAC statistical framework provides an international standard for tracking development finance, recently capturing integrated statistics on bilateral and multilateral climate-related development finance flows and working on improving its quality and coverage.

The OECD also hosts the Research Collaborative for Tracking Private Climate Finance, which co-ordinates emerging findings on methodologies to estimate mobilised private climate finance. The Research Collaborative has close technical collaboration with the DAC, MDBs, other development finance institutions, countries and expert organisations.

Executive Summary

How to unlock finance in support of developing countries' low-carbon and climate-resilient growth is a central issue of concern for policymakers around the globe. As evidence grows regarding the negative impacts of climate change on human health, economic activity, natural resources and physical infrastructure, finance in support of climate change adaptation has been attracting more attention, especially for countries that are the most immediately vulnerable to these adverse impacts.

In an effort to address this issue, during the 2009 United Nations Framework Convention on Climate Change (UNFCCC) negotiations in Copenhagen, developed countries committed to a goal of mobilizing jointly USD 100 billion a year by 2020 to address the climate mitigation and adaptation needs of developing countries. This funding is to come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources.

The OECD, in collaboration with CPI, recently released the report "Climate Finance in 2013-14 and the USD 100 billion goal" which, estimated progress towards this goal. The report includes public bilateral and multilateral finance commitments as well as the private co-financing associated with both (as best-available evidence of mobilized private finance). It estimates 2013-14 average annual bilateral and multilateral public finance from developed to developing countries for adaptation at USD 7.9 billion – just below 20% of total public climate finance – with another USD 3.9 billion (just below 10%) addressing both mitigation and adaptation. The imbalance between mitigation and adaptation finance is therefore estimated to be even greater for private than public finance. There are few known examples where public finance has mobilized private adaptation finance. This is to some extent due to the difficulties in tracking adaptation-related finance. More work is needed to better-understand how to identify, measure, and track public interventions that mobilize private finance for adaptation, and how similar interventions can be most effective in the future.

The OECD-hosted Research Collaborative on Tracking Private Climate Finance, under which this research is conducted, aims to develop more comprehensive methodologies for estimating private finance flows mobilized by developed countries' public interventions for climate action in developing countries. Analysis has, however, so far primarily focused on mitigation, only partly dealing with adaptation due to significant data constraints and methodological challenges. The present study advances our understanding of private finance for climate change adaptation mobilized by public finance interventions by:

Of the private finance estimated as mobilized by developed countries' public finance, private adaptation finance is less than 10% of the total, with over 90% of private finance mobilized for mitigation.

- **Taking stock of data availability and on-going efforts** to measure private finance mobilized for climate action in developing countries, including for adaptation activities;
- **Developing and evaluating a range of methodological options** to estimate private finance mobilized by public adaptation finance; and
- **Conducting case study-based pilot measurements** of mobilized private adaptation finance by testing these methodological options on two bilateral public finance adaptation projects.

Publicly-mobilized private adaptation finance: concepts and scope

We define publicly-mobilized private finance for adaptation as the private finance invested as a result of adaptation-related public interventions, which can typically take the form of finance or policies. For the purposes of this study, the focus is on developed countries' public finance interventions to mobilize private finance for climate adaptation in developing countries. Estimating private finance mobilization requires demonstrating or making plausible assumptions about the causal link between public interventions and the amount of private finance claimed to have been mobilized as a result of such interventions. This paper explores important differences between private finance that is mobilized *directly* (mobilized private co-finance), *intermediated-directly* (e.g. via funds or credit lines*)*, and *indirectly* (via enabling outputs) by a range of public finance interventions. While the focus of the present analysis is on adaptation-related activities, these differences also apply to private finance mobilized for mitigation action. The need to investigate indirect private finance mobilization, however, appears acute for adaptation since, as noted above, relatively small amounts of directly mobilized private co-finance can currently be tracked for adaptation.

Direct private finance mobilization (Figure ES1) is defined as private finance that is co-financed alongside public finance into the same project, program or fund and which is invested as a direct result of the provision of public finance (or guarantee) to that same project, program or fund. In other words, direct mobilization happens "at source" where public finance is being provided. In most cases the private finance mobilization occurs around the same time or shortly after the provision of public finance.

Similar to direct mobilization, ***intermediated-direct private finance mobilization*** (Figure ES2) is defined as private finance that is *invested alongside public finance* and as a direct result of that public finance, but where the public finance is initially provided *one step upstream* of the private investment, and is intermediated via a fund, a fund of funds, or a bank account (e.g., a credit line). While the public finance may go through different funds before reaching final investment, it is still ultimately invested alongside the private finance and therefore similar to direct co-financing. Private finance can be mobilized at both direct and intermediated direct levels sequentially or in parallel.

Indirect private finance mobilization (Figure ES3) is defined as private finance that is invested as a result of a public finance intervention, but where the public finance intervention supports enabling outputs that occur *one or more steps upstream* of the private investment. With indirect mobilization, there is typically a longer time lag between the public intervention and the private finance mobilization, compared with direct private finance mobilization. Given this lag, as well as other factors (policy, market, and financial conditions) that also impact private investments, indirect private finance mobilization is more difficult to measure than direct and intermediated-direct mobilization. Examples of public interventions resulting in enabling outputs that can indirectly mobilize private finance include project preparation assistance to develop a business plan or test feasibility, grant-supported technical assistance for knowledge and capacity building activities, or budgetary support for program or policy development.

Figure ES1: Direct private finance mobilization

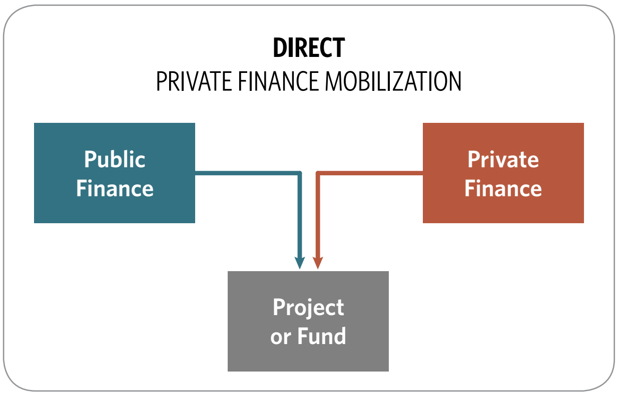


Figure ES2: Intermediated-direct private finance mobilization

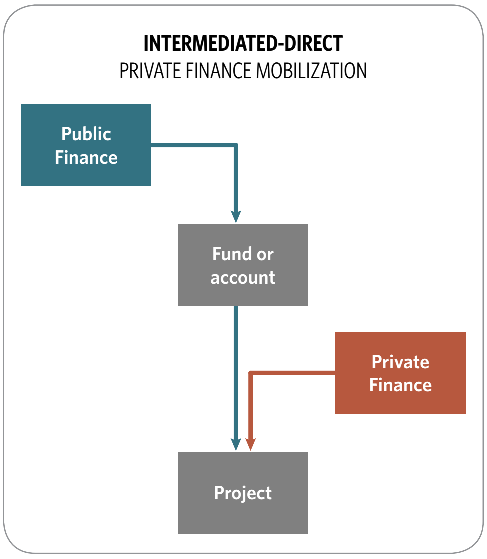
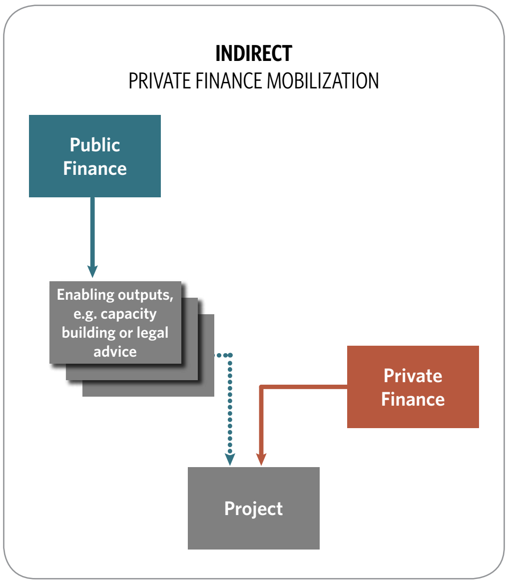


Figure ES3: Indirect private finance mobilization



On-going efforts to improve data availability and measure mobilized private climate finance

This study finds that there is currently limited publicly-available data on private adaptation finance mobilized by public interventions in and to developing countries. Publicly-available activity-level data on bilateral and multilateral development finance for adaptation only provide an indication of a possible (not actual) private finance involvement. This was estimated to be the case for about 7% of public finance adaptation activities recorded in 2013, both in terms of number of activities and corresponding volumes of finance committed. Commercial investment databases do not provide the contextual information needed to identify whether an investment is adaptation-specific or has adaptation-specific elements, let alone whether or not it was mobilized by a public intervention. One reason for this is that the concept of adaptation is not commonly used by private actors, who tend to consider climate resilience as part of their broader risk management processes.

Promisingly, development finance institutions are developing methodologies to track private finance associated with their public climate finance interventions, covering both mitigation and adaptation finance. Most of these institutions already capture partial information about private co-finance at the fund- and project-level, and some use this data as a proxy for mobilization. Such co-finance data was used as best available evidence for producing an estimate of mobilized private climate finance in the context of the aforementioned report "Climate Finance in 2013-14 and the USD 100 billion goal". However, efforts to further develop and streamline methodologies to estimate private finance mobilization are still needed. Current methodologies used across developing finance institutions can vary, in particular in how they define climate (including adaptation) activities, set accounting boundaries for the private finance associated with a given public intervention, assess the causal link between public interventions and private finance, and attribute mobilized private finance among public actors involved. There are ongoing efforts by these institutions and the OECD to further develop and harmonize definitions and methodologies. For now, these efforts focus on the measurement of direct and semi-direct mobilization, but do not include an analysis of indirect mobilization.

Given that private finance for adaptation may be mobilized through interventions that occur upstream of the private finance involvement in the investment value chain (e.g., capacity building, technical assistance, and policy changes), existing tracking efforts will not capture all mobilized private adaptation finance and may overestimate the direct mobilization effect of public adaptation co-finance at the project level. Public finance institutions acknowledge the importance of measuring indirect mobilization, but underline the practical challenges, the difficulty to agree the attribution of respective mobilization effects among players and transaction costs involved in doing so.

Exploring methodological approaches to estimate mobilized private adaptation finance

This study develops four exploratory methodological approaches for measuring mobilized private adaptation finance. The approaches are based on the OECD Research Collaborative for Tracking Private Climate Finance's framework of decision points, building on and expanding available methodological approaches for measuring mobilized private finance. They vary in how the following three key decision points are defined:

- *Types of interventions considered,* i.e., what types of public finance interventions we include as relevant in mobilizing private finance (e.g. co-finance, credit lines, public finance via technical assistance, support for capacity building activities, financial support for policy development, etc.).
- *Accounting boundaries,* i.e., the borders around which to include private finance associated with a given public intervention.
- *Causality assessment,* i.e., the process by which we determine whether and to what extent a public finance intervention caused private finance to be mobilized (meaning that private actors would not have become involved *without* the public intervention)

The approaches are described below. While they are tested in this report for adaptation finance, they are also directly relevant to assessing private finance mobilized for mitigation action. Even more broadly, these approaches could also potentially be used to evaluate the mobilization of private finance through public finance interventions for non-climate-specific activities (e.g. health, education, economic development, etc.).

"Approach 1 — Direct" only considers interventions that occur "at source" and therefore includes only direct project- or fund-level co-finance. It is assumed that the public co-finance fully caused the private co-finance to be mobilized (blanket causality).

"Approach 2 — Direct and intermediated-direct" extends the accounting boundaries of Approach 1 to include public finance to a project or program occurring one step "upstream" from the private finance in the investment value chain, where the initial public finance is provided via a fund or credit line. This approach therefore takes into account direct and intermediated-direct forms of private finance mobilization that may occur. As in Approach 1, this approach assumes that the finance coming via the fund and/or credit line fully caused the private investment i.e. blanket causality is applied.

"Approach 3 — Direct, intermediated-direct, and indirect" also includes public finance one step "upstream" from the private investment. However, Approach 3 differs in that it also includes *enabling outputs* resulting from the initial public finance interventions, such as improved capacity, demonstrated project feasibility, or the development of policies and regulations. This approach therefore allows for the inclusion of more indirect forms of mobilization that may occur, along with the direct and intermediated direct forms.

"Approach 4 — Direct, intermediated-direct and indirect expanded" mirrors Approach 3, but extends the boundary *two steps* "upstream" of the private finance being invested and therefore includes two enabling outputs in the investment value chain to be factored in.

The four methodological approaches are summarized in the following table. It is worth noting that Approaches 1 and 2 are quite similar in that they only capture finance that is mobilized "directly" and Approaches 3 and 4 are similar in that they also capture finance that is mobilized "indirectly". However, we find it important to differentiate them further into four distinct approaches to demonstrate that slight variations in methodologies can significantly change the results of the mobilization assessment:

Table ES1: Methodological approaches to measure mobilized private adaptation finance

APPROACH	TYPES OF INTERVENTIONS CONSIDERED	BOUNDARIES CONSIDERED	CAUSALITY ASSESSMENT
Approach 1: Direct	Public co-finance at the project-, program- or fund- level.	Only captures project- or fund-level co-finance.	Assume blanket causality. In cases with multiple direct/intermediated-direct interventions impacting the same pool of private finance, apply a partial causality assessment to each intervention.
Approach 2: Direct and intermediated-direct	Same as above, plus: public finance to a project or program via an interme-diary such as a fund, fund of funds or credit line.	Extends to public finance one step upstream of the private finance in the investment value chain.	
Approach 3: Direct, intermediated-direct and indirect (one step upstream)	Same as Approach 2, plus: public finance for enabling outputs such as technical assistance, support for capacity building activities (includ-ing financial support for policy developments).	Extends to public finance /inter-ventions one step upstream of the private finance in the investment value chain and includes one enabling output.	Apply a partial causality assessment.
Approach 4: Direct, intermediated-direct, and indirect expanded (two steps upstream)		Extends to public finance /interven-tions two steps[a] upstream of the private finance in the investment value chain and includes two enabling outputs.	

a While the assessment could include interventions three or more steps upstream, we stop at two given that assessing causality becomes much more challenging the more intermediary steps are factored in.

Evaluation of different methodological approaches

The four exploratory approaches are tested on two case studies and evaluated against four assessment criteria defined and used by the Research Collaborative:

- Accuracy: reflects a realistic and complete depiction of which interventions enabled private finance to be mobilized;
- Incentives: encourages the use of public interventions to deliver climate benefits; promotes means to scale up finance for climate action;
- Potential for standardization: applicable to various types of reporting entities; allows for aggregation and comparison; avoids double counting across reporting entities; and
- Practicality: feasible with the data and expertise available; is time- and cost-efficient to report.

The application of the methodologies to the case studies demonstrates that **the amount of private adaptation finance estimated as mobilized changes significantly based on the methodology employed**. The bar charts in Figure ES4 below demonstrate this.

We also find that there is an **inverse relationship between the accuracy of the approaches and the incentives they provide on the one side, and their practicality and standardization potential (including minimizing double counting risks) on the other side**. This is illustrated in the summary evaluation Table ES2 below.

Direct private finance mobilization is easier to identify and more practical to quantify than indirect mobilization. However, not considering the latter can lead to underestimations of total private finance mobilized, and to overestimating the direct mobilization impact of public financial support. Our case studies illustrate the limitations of approaches that only include direct and intermediated-direct mobilization (Approaches 1 and 2) in cases where no direct private co-finance is involved at the project level. If we had restricted ourselves to these approaches, we would have concluded that i.e. the African Risk Capacity's insurance mechanism examined in one of the two case studies did not mobilize any private finance. Therefore, the methodological approach applied may have significant implications for tracking private climate finance for adaptation, given the increasing importance of insurance mechanisms in supporting adaptation, and their potential to involve private sector actors (e.g. reinsurers).

Importantly, assuming that the provision of public support is in part motivated by the expected private finance mobilized, excluding indirect mobilization may disincentivize the provision of upstream project, technology, and market development support. These are necessary to create the enabling conditions and that play a key role in mobilizing future private finance. Considering indirect mobilization may therefore incentivize further coordination of public actors towards better combining a wider range of complementary public finance interventions (for capacity building, budgetary support and investments), and relevant policy instruments.

Figure ES4: Illustration of the range of private finance estimated as mobilized for two case studies

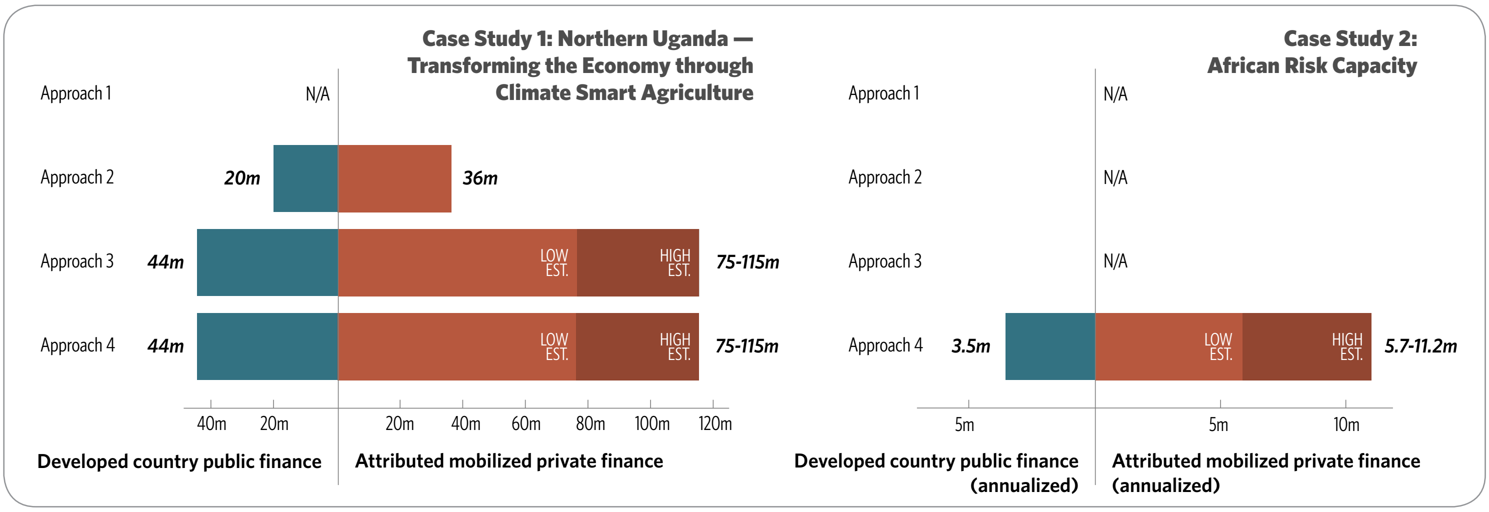


Table ES2: Evaluation of methodological approaches

APPROACH	ACCURACY	INCENTIVES	POTENTIAL FOR STANDARDIZATION	PRACTICALITY OF IMPLEMENTATION
Approach 1: "Direct"	**Moderate**. May overestimate direct mobilization by disregarding the role played by certain public finance interventions (for e.g. capacity building) in indirectly mobilizing private finance.	**Moderate-weak**. Encourages the use of public finance interventions that are likely to directly mobilize private co-finance at the project level; does not incentivize the use of public finance interventions that have indirect mobilization effects.	**Moderate-Strong** In principle easy to standardize across institutions. If approach not standardized, some risk of double counting across entities that are co-financing the same project.	**Strong**. Feasible with available data for most public finance instruments.
Approach 2: "Direct and intermediated-direct"		**Moderate-weak**. Encourages the use of public finance that are likely to mobilize private finance directly or in an intermediated manner; does not incentivize the use of public finance interventions that have indirect mobilization effects.	**Moderate.** Relatively easy to standardize but needed across a wider range of public finance interventions and institutions (e.g. funds) than Approach 1. As such, the risk of double counting across public interventions is slightly higher.	**Moderate-strong**. Feasible but requires data availability beyond the immediate point of commitment of public finance.
Approach 3: "Direct, intermediated-direct and indirect"	**Strong**. Takes into account both the direct and indirect mobilization effect of public finance interventions.	**Moderate.** Can incentivize all public finance intervention types, except those mobilizing private finance with more than 1 intermediary step.	**Weak**. Given causality assessment is qualitative, the approach could be standardized but results not necessarily consistent from one public actor/project to another. As a result, there is an increased risk of double counting.	**Weak**. Time-consuming (and therefore costly) to assess partial causality, thus less feasible and practical to implement than Approaches 1 and 2.
Approach 4: "Direct, intermediated direct, indirect and indirect expanded"		**Moderate-strong**. Can incentivize all public finance intervention types, except those mobilizing private finance with more than 2 intermediary steps.		

There is a risk of double counting mobilized private finance if different stakeholders involved in the same project use different methodological approaches for estimating mobilized private finance. Such double counting is more likely to occur when a project involves a broad range of upstream and downstream public interventions that can claim to have participated in mobilizing the same private finance. In order to avoid this risk, all public actors involved in supporting the same activity would therefore need to apply a coherent methodological approach.

Conclusions and next steps

On-going efforts by bilateral and multilateral development finance institutions to more systematically collect private co-financing data will strengthen the ability to understand and analyze how direct mobilization of private climate finance is occurring, including for adaptation. Climate finance practitioners may in the future choose to explore approaches for measuring indirect mobilization of private finance, which appears to be particularly relevevant for adaptation activities and cannot be captured by co-financing data. This research paper aimsto help fill the methodological gap. Challenges remain, however, as all four methodological approaches developed and tested have their limitations.

More work is needed to more accurately assess and make plausible assumptions about the causal relationship between public finance interventions and the private finance they mobilize directly and indirectly. This includes the need to explore options for isolating the mobilization effect of public finance interventions from broader contextual factors. Future research could explore variations on the methodologies developed here to see how changes to key variables (applying different attribution rules, changes to the causality assessment, etc.) impact the results of the mobilization assessment and what elements of the financial value chain get emphasized or understated. Given the qualitative approaches explored in this paper for capturing indirect forms of mobilization are time- and resource- intensive, other methodological approaches merit exploration.

In any case, it should be noted that **a coherent use of approaches among public actors supporting an individual activity, project or program is needed to minimize risks of double counting.** This is particularly the case where both upstream (indirect mobilization) and downstream (direct mobilization) public finance interventions can claim to have participated in mobilizing the same private finance.

Finally, in order to help enable a more comprehensive and systematic measurement of adaptation-related private finance, efforts are needed to improve the identification of the climate-resilient components of mainstream business activities. As demonstrated by recent research, difficulties in tracking adaptation finance and the private finance mobilized for adaptation are in part related to the fact that activities improving climate-resilience are rarely stand-alone but rather integrated into normal business operations and development activities (for example, “water efficiency improvements”). Due to this integration, private investments in climate resilience are difficult to classify and track as such and therefore rarely reported as “adaptation” beyond the very limited amounts of private co-finance reported by public adaptation finance providers to date. Improvements to define and identify adaptation activities will, over the longer term, allow for better tracking and understanding of private finance mobilized for adaptation.