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The role of multilateral climate funds in mobilising private investment

A review of the CTF, GEF, SREP, PPCR and GEEREF

Shelagh Whitley, Emilio Chiofalo and Sam Barnard

Abstract

The multilateral climate funds (MCF) are one example of how climate finance is being deployed to mobilise private investment. Many of these funds have an explicit goal of engaging the private sector, in part by attracting private finance to MCF investments.

Although these funds do not currently provide information on funds mobilised through private finance interventions (PFIs), they do in many cases disclose *targeted* volumes of finance and details of proposed financial structures.

Using this information we have compiled a detailed dataset of 93 PFIs representing $30 billion in MCF, public and private investment, with every $1.00 of public finance aiming to mobilise on average $0.80 of private finance. In addition, we can begin to identify patterns in those PFIs that *target* high levels of private investment.

Acknowledgements

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Abbreviations

AP	Asia Pacific
BMZ	[German] Federal Ministry for Economic Cooperation and Development
BRICS	Brazil, Russia, India, China and South Africa
CF	Climate finance
CIF	Climate Investment Fund
CTF	Clean Technology Fund
ECA	Eastern Europe and Central Asia
EE	Energy efficiency
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GEF	Global Environment Facility
IFC	International Finance Corporation
LAC	Latin America and the Caribbean
MCF	Multilateral climate fund
MDB	Multilateral development bank
MENA	Middle East and North Africa
PFI	Private finance intervention
PPCR	Pilot Program for Climate Resilience
RE	Renewable energy
SCF	Strategic Climate Fund
SREP	Scaling Up Renewable Energy Program for Low-Income Countries
SSA	Sub-Saharan Africa

Executive Summary

The multilateral climate funds (MCFs) are one example of how climate finance is being deployed to mobilise private investment. Many of these funds have an explicit goal of engaging the private sector, in part by attracting private finance to MCF investments. Although these funds do not currently provide information on funds mobilised through private finance interventions (PFIs), they do in many cases disclose targeted volumes of finance and details of proposed financial structures.

Using this information we have compiled a detailed dataset of 93 PFIs across five[1] MCFs, representing $30 billion in investment. The funds all target very different shares of MCF, public and private finance, but averaged across all PFIs every $1.00 of public finance is aiming to mobilise $0.80 cents of private finance. A more definitive analysis will require more information on the details of actual finance mobilised once it becomes available.

Nonetheless, we can begin to identify patterns in those PFIs that target high levels of private investment, including that they primarily take place in higher income countries (BRICS, OECD or EU accession), and are supporting established renewable technologies (wind) and energy efficiency projects. Far lower levels of private finance are targeted in PFIs focused on agriculture, transport, and less established technologies such as geothermal power.

The primary role of MCFs within PFIs that target high levels of private investment include:

- supporting guarantees, risk transfer or risk sharing facilities which aim to backstop private investors
- providing small grants for technical assistance provided alongside large MDB loans
- providing small concessional loans alongside large volumes of domestic (recipient country) public finance.

Our analysis also allows us to identify early PFIs supported by multiple MCFs, in particular where the Clean Technology Fund (CTF) and Global Environmental Facility (GEF) are active within the same PFIs but are using different modalities and instruments. GEF programmes are playing an important role in in addressing regulatory and institutional barriers to private investment (using grants), which complements the role of the CTF in intervening to de-risk investments at the project level (using concessional debt). These findings are linked to wider observations and early research on the importance of combining project and market interventions at country level (including through support to policy development), and to opportunities for collaboration through the international organisations that are involved in the majority of PFIs.

[1] CTF, GEF, SREP, GEEREF, and PPCR.

Introduction

What does it take to mobilise private investment in global efforts to respond to climate change? This question has become central to global international funding to help developing countries respond to climate change, and in the context of commitments made under the Copenhagen Accord in 2010 to mobilise finance approaching $100 billion a year from public and private resources.

In parallel to the activities of multilateral and bilateral institutions, a number of multilateral climate funds (MCF) have been created to channel finance that have a broad mandate for 'private sector engagement', a term which means the provision of funds both to and by the private sector. This paper focuses on this second objective, and seeks to identify the interventions of MCF which aim to mobilise private finance.

Our analysis builds on ODI studies of the broader effectiveness of a number of MCFs, as well as other previous research, to understand the private finance mobilised through the bilateral efforts of German, Japanese, UK and US programmes aimed at addressing climate change (ODI, 2014; Whitley, 2013). This work also links to a broader programme of analysis under the Research Collaborative on Tracking Private Climate Finance led by the Organisation for Economic Cooperation and Development (OECD, 2014).

1.1 What are multilateral climate funds?

MCFs are one of a number of routes through which climate finance can flow. This section provides a brief overview of the five MCFs selected for review based on their engagement in mobilising private investment.[2]

Established in 1991, the **Global Environment Facility (GEF)** is an operating entity of the financial mechanism of the United Nations Framework Convention on Climate Change with a long track record in environmental funding. It allocates resources according to the impact of every dollar spent on environmental outcomes, while ensuring all developing countries have a share of the funding. Under the GEF fifth replenishment (**GEF 5**, 2011-2014), 27 donor countries have deposited $777 million to the climate change focal area that aims to disburse funds to climate change mitigation and adaptation projects. GEF 5 has approved a total of $668 million for 161 projects, of which $238 million has been disbursed as of March 2014.[3] In 2008, the GEF established the **Earth Fund (EF)**, a pilot public-private partnership initiative under which the GEF aims to demonstrate ways to engage more systematically with the private sector and demonstrate the potential for

[2] Further fund-level information and details of additional multilateral, bilateral and national climate finance initiatives can be found at the Climate Funds Update website: www.climatefundsupdate.org.

[3] Disbursed figures might be overestimated as the GEF releases information on the status of the project (e.g. approved only or both approved and disbursed) but not on the exact amount disbursed. Additional funds have been approved and disbursed by these funds to date, but we have included information up to March 2014 to correspond to the scope of the following analysis.

strategic partnerships to achieve a greater scale of investment than is otherwise generally achievable.

The Climate Investment Funds (CIFs) were established in 2008 and as of March 2014 have a total pledge of $7.5 billion.[4] The CIFs include the **Clean Technology Fund (CTF)** ($5.2 billion) and the Strategic Climate Fund (SCF) composed of the **Pilot Program for Climate Resilience (PPCR)** ($1.2 billion), the Forest Investment Program ($0.6 billion) and the **Scaling Up Renewable Energy Program for Low-Income Countries (SREP)** ($0.5 billion).

The CIFs finance programmatic interventions to assist selected developing countries in piloting low-emissions and climate resilient development. Each of the sub-funds has focused objectives:

- The CTF provides mostly middle-income countries with highly concessional resources to explore options to scale up the demonstration, deployment and transfer of low carbon technologies in renewable energy, energy efficiency and sustainable transport.
- The PPCR funds technical assistance and investments to support countries' efforts to integrate climate risk and resilience into development planning and implementation.
- The SREP was established to scale up the deployment of renewable energy solutions and expand renewables markets, particularly in low-income countries.

The CIFs are administered by the World Bank and operate in partnership with regional development banks including the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, and the Inter-American Development Bank.

The European Investment Bank-administered **Global Energy Efficiency and Renewable Energy Fund (GEEREF)** was initiated by the European Commission in 2006 and launched in 2008 with funding from the European Union, Germany and Norway totalling $79 million (€112 million).[5] Structured as a fund of funds, the GEEREF invests in private equity funds that specialise in providing equity finance and technical support to small and medium-sized project developers and enterprises.

1.2 Methodology

In assessing the role of these MCFs in mobilising private finance, we sought to identify a subset of these funds' interventions (programmes and sub-projects, and stand-alone projects) for which there was an intention to unlock private investment clearly expressed within the project or programme documentation. In the rest of this report this subset of activities within the funds' portfolios are identified as private finance interventions (PFIs).

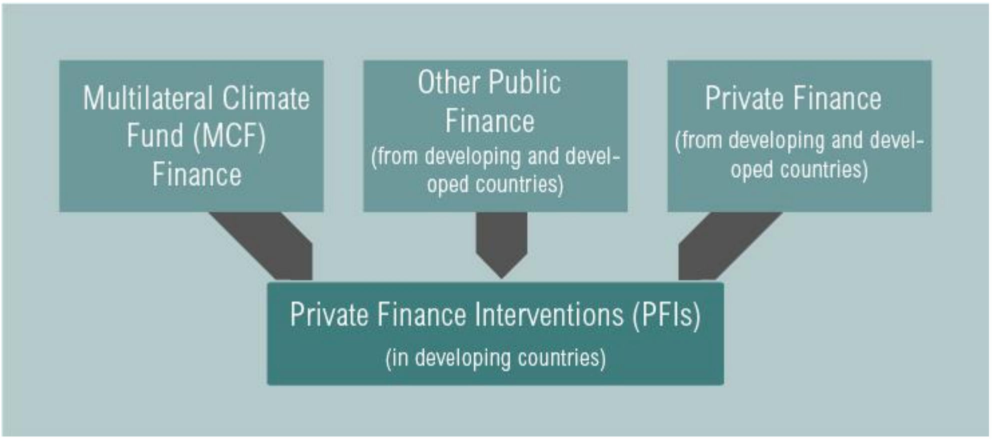
We reviewed publicly available information on each of these PFIs in detail in order to identify:

- finance from MCFs

[4] The CIF figures only include projects approved by both the Trust Fund Committees and implementing multilateral development banks.
[5] Using the annual euro to US dollar exchange rate for 2008 (0.711) (www.irs.gov/Individuals/International-Taxpayers/Yearly-Average-Currency-Exchange-Rates).

- developed and developing country public finance (directly linked to MCF flows), and
- developed and developing country private finance (directly linked to MCF flows) (See Figure 1).

Figure 1: Flows reviewed in context of PFIs



This analysis does not capture developed or developing country private sector flows *indirectly* mobilised by PFIs (including those flowing as a result of policy level interventions). However, we do reflect more generally on the role of MCFs in mobilising private finance through market-level and policy interventions in Section 3.9.

There are a number of methodologies for tracking mobilised private finance. For the purpose of this analysis we built on an approach developed in the context of ODI's research contributions to the OECD-led Research Collaborative (Illman et al., 2014). This entails the following definitions and considerations:

- Private finance: defined as provided by an actor that is less than 50% publicly owned.
- Public finance: defined as provided by an actor that is more than 50% publicly owned (including finance from MCFs).
- Recipient: defined as the location and type of intervention of the project or programme.
- Timing: date of MCF trust fund approval, which includes a statement regarding target private co-financing.
- Climate specific: all PFIs were determined to be climate specific as they are supported by one or more MCF.
- Currency: all flows were converted to US dollars using a 2014 exchange rate[6] (see Appendix 1).
- Calculation: ratio of private co-financing to MCF finance, and ratio of private co-financing to public co-financing (including MCF support) (see Section 3.3).

[6] 1 EUR = 1.38 USD, 1 NOK = 0.17 USD (Q1 2014 exchange rates).

Due to the limited detail provided in publicly available documents and the restricted scope of this study, we were not able to review further considerations of additionality, attribution, and information at sub-project level, even though they might be usefully taken into account when assessing the role of MCFs in mobilising private climate finance (Illman et al., 2014).

1.1.1 Data collection

Information on PFIs was collected from reports made publicly available by the MCFs and, in the case of the GEEREF, from information available from the websites of funds in which it invests. For the GEF we reviewed all interventions in GEF 5 and GEF EF approved before 31 March 2014, and for the remaining funds (CTF, SREP, PPCR and GEEREF) we reviewed interventions approved by the relevant trust fund between 1 January 2009 and 31 March 2014 (a total of 285 interventions).[7]

The resulting findings from this review can be found in a dataset linked from Appendix 1, and covers the 93 PFIs identified.

Box A1: Information reviewed for each PFI (see Appendix I)

- Intervention title and description
- Identification if programme, project, or sub-project (within a wider funding envelope)
- Mitigation / adaptation
- Sector / sub-sector
- Region, country (and income group)
- Date of approval
- Implementing entity
- Public finance: actor name(s) and type(s), actor country(s) of ownership, type(s) of finance, and target(s) ($ amount)
- Private finance: actor name(s) and type(s), actor country(s) of ownership, type(s) of finance, and target(s) ($ amount)
- Intermediary(s): actor name(s) and type(s), and actor country(s) of ownership
- End recipient(s): actor name(s) and type(s), and actor country(s) of ownership

[7] Number of interventions reviewed: GEF 161, CTF 62, SREP 9, PPCR 44, and GEEREF 9.

2 Fund mandates

2.1 Mandate to mobilise private finance

Among the MCFs reviewed in this report, the GEEREF, CTF and GEF all have an explicit mandate to mobilise private investment (within broader goals of private sector engagement), while the SREP and PPCR have a broad objective of 'unleashing the potential of the private sector'.

The primary objective of the GEEREF is:

> to mobilize private investments for the benefit of developing countries and economies in transition. (European Commission, 2006)

The governance framework for the CTF states that, among other financing objectives,

> the CTF will seek, through the MDBs [multilateral development banks], to provide a range of financial products to leverage greater private sector investments. (Climate Investment Funds, 2011a)

The GEF policy on co-financing highlights the importance of private sector resources as co-financing:

> GEF co-financing comprises the total of cash and in-kind resources committed by governments, other multilateral or bilateral sources, the private sector, NGOs, the project beneficiaries and the concerned GEF agency, all of which are essential for meeting the GEF project objectives.[8]

In addition, the GEF's EF initiative has a goal of:

> allowing the GEF to demonstrate ways to engage more systematically with the private sector in order to … achieve greater scale of investment than generally achievable. (GEF, 2013)

In the case of the SCF (including SREP and PPCR), the objective is broader:

> utilize the skills and capabilities of the MDBs to raise and deliver concessional climate financing at a significant scale to unleash the potential of the public and private sectors to achieve meaningful reductions of carbon emissions and greater climate resilience. (Climate Investment Funds, 2011b)

[8] GEF web page on co-financing: www.thegef.org/gef/policy/co-financing.

2.2 Requirements for reporting on private finance

Each of the MCFs reviewed have very different requirements and processes for reporting on private finance associated with interventions. The GEF[9] has the strongest reporting protocols and clearest information on targeted private investment. These differences in reporting requirements and subsequent data provision have a significant impact on our ability to review and assess this dimension of the funds' effectiveness.

2.2.1 GEF (GEF 5 and GEF EF)

The GEF has an explicit mandate to track indicative or target private co-financing. As a result, among the funds reviewed, the GEF has the most clear and comprehensive information available on private finance:

> Cofinancing will be reported and monitored by source, by type, and by the stage of the Project Cycle. Sources include (a) the agency's own cofinancing; (b) government cofinance (counterpart commitments) e.g., for baseline or foundational activities upon which the project would build or without which the project could not be implemented; and (c) contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector, and beneficiaries. (GEF, 2003)

The GEF co-financing reporting requirement is realised through a template table on 'indicative co-financing for the project by source and by name if available' that must be completed in all project identification forms. However, in many cases these forms remain vague with regard to the specific names or even general types of actors providing private investment.

2.2.2 CIFs (CTF, SREP and PPCR)

The CTF and SCF (including SREP and PPCR) allow MDB implementing entities to report using their own reporting processes and protocols:

> The Administrative Units (of the CTF and the SCF) must prepare an annual consolidated report on the CTF's / SCF's activities, performance, and lessons, including details of the CTF's / SCF's portfolio, status of implementation, funding allocations for the previous period, pipeline of projects and funding projections, administrative costs incurred, and other pertinent information. Each MDB will report annually to the CTF / SCF Trust Fund Committee for monitoring and evaluation conducted by the MDB in accordance with its procedures. (Climate Investment Funds, 2011a; Climate Investment Funds, 2011b)

As a result, the information provided on the CIF website is spread across multiple documents, is not harmonised, and contains varying levels of detail regarding the role of private investment.

The CTF operational reports divide interventions into classifications of 'private' and 'public'. This category does not explicitly provide information on the source, target or recipient of finance but instead indicates the type of implementing entity

[9] Including GEF 5 and GEF EF.

involved (i.e. the private or public sector arm of a development finance institution). As a result, a detailed review of all CTF documentation was required to identify which interventions targeted private co-finance. Identifying private finance information also required crosschecking a range of sources including project documents, semi-annual operational reports, evaluations and annual reports. To address any potential discrepancies, we referenced information in the most recent documents available.[10]

Information on private finance is not expressly available in many of the SREP and PPCR project documents. We have relied heavily on semi-annual operational reports for our analysis of these two funds, and as a result SREP and PPCR private finance data may be less up-to-date than for the CTF, where project documentation may become available prior to the publication of semi-annual reports.

2.2.3 GEEREF

In the case of the GEEREF there are no details on monitoring requirements for private finance beyond the proposal that 'high-quality monitoring, reporting and control features will be established' (European Commission, 2006). The GEEREF website contains no further information about monitoring and reporting protocols, and no information is provided on private investment mobilised through GEEREF funds. The website does outline GEEREF contributions to each private equity fund that it supports, and depending on the fund, further information about other funders (both private and public) can be uncovered through research on their websites and news releases.

[10] We found that for more recently approved projects the 'Summary' or 'Cover Note' for project/programme appraisal reports often contained a table of co-financing, including private investment.

3 Findings: Private finance interventions

This section of the report presents a quantitative analysis of PFIs identified through our review of publicly available information (see Box A1). The full dataset used for this analysis, covering the 93 PFIs identified, can be found in Appendix 1.

3.1 Information available

Our analysis must be read in the context of the limited information available resulting from current reporting practices, and our ensuing research methodology. As a first caveat, the majority of private finance reported across funds is indicative or target investment as opposed to realised commitments of private finance or disbursements of public finance. As a result, our quantitative analysis indicates *intended* mobilisation as opposed to *actual* mobilisation.[11]

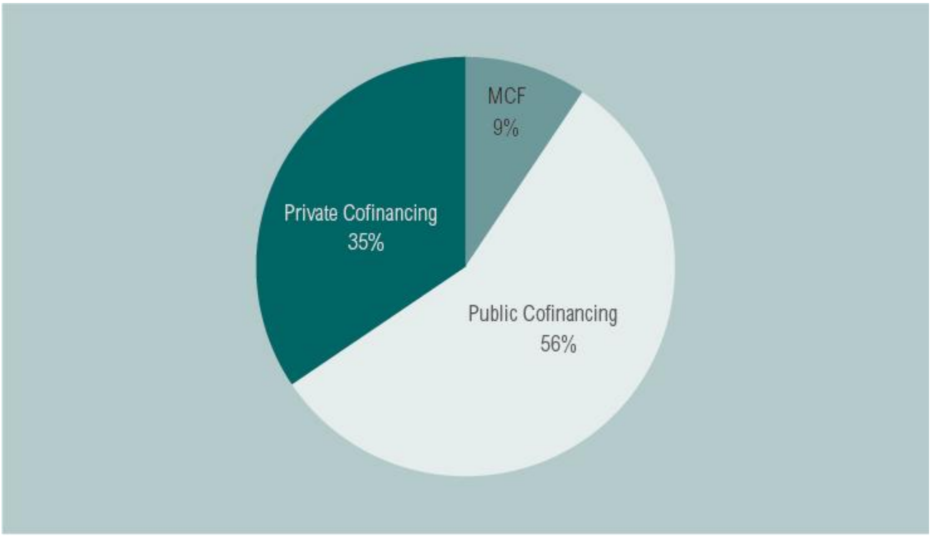
Also, while the climate funds report information on public finance in PFIs in detail, there are significant information gaps on private finance (amounts, actors and instruments). For the PPCR there is no information on volumes of private finance available at all. There is no quantitative information on the amount of private finance for 4 out of 6 GEEREF PFIs; for 1 out of 4 SREP PFIs; and for 13 out of 47 CTF PFIs. Only the GEF has information on target private finance for the vast majority of its PFIs (see Section 3.6 for detailed findings).

3.2 Targeted co-financing mix across funds

On the basis of a full review of fund portfolios, 93 PFIs and target investment of $30.1 billion were identified from private and public sources (including MCFs) (see Figure 2).

[11] In several cases there are indications of target finance that could come from the public or private sectors, and are indicated as a single figure. In these instances the reported target is split 50/50 across public and private (see comments in Annex 1 for CTF 16, GEF 1, GEF 14 and GEF 32). Where information was available on disbursed finance this is also indicated in Annex 1, but in the interest of consistency was not used for analysis.

Figure 2: Mix of target private, public and MCF investment in PFIs



Across the funds as a whole, the share contributed by MCFs appears small compared to public and private co-financing (see Figure 2). However, looking at fund-level information, while the CTF takes a minor role in financing in most cases, the GEEREF and PPCR play a significant financing role in their PFIs (see Figure 3).

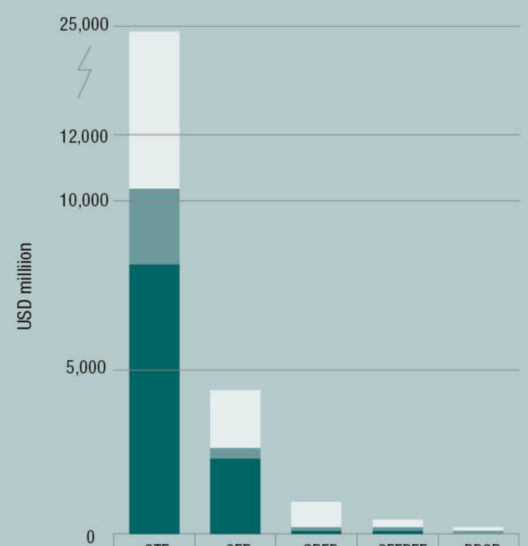
Figure 3: Details of PFIs by fund (scale and number)

Fund	Total finance targeted (public, private and MCF) (USD million)	Number of PFIs identified	Average size of PFI (public, private and MCF) (USD million)	Average MCF contribution to PFI (%)
CTF	24,342	47	597	8% (49m)
GEF	4,274	33	127	6% (8m)
SREP	912	4	228	9% (20m)
GEEREF	429	6	44	32% (14m)
PPCR	151	3	43	63% (27m)

The private–public–MCF mix is very different across the funds: CTF interventions target support from private and other public finance equally, while in the GEEREF and PPCR, the balance of funds is expected to come from public actors (see Figure 4). This may be due to the nature of the investments, with the GEEREF and PPCR (focused on private equity for renewable energy and adaptation respectively), taking on interventions that have a shorter track record in the context of international finance. In contrast, the CTF is focused on the more established areas of concessional loans for renewable energy and efficiency project finance (see Section 3.4). The GEF targets higher levels of private co-financing than other

MCFs. The following sections will highlight the limitations of using co-financing ratios as the primary indicator of effectiveness in mobilising private climate finance.

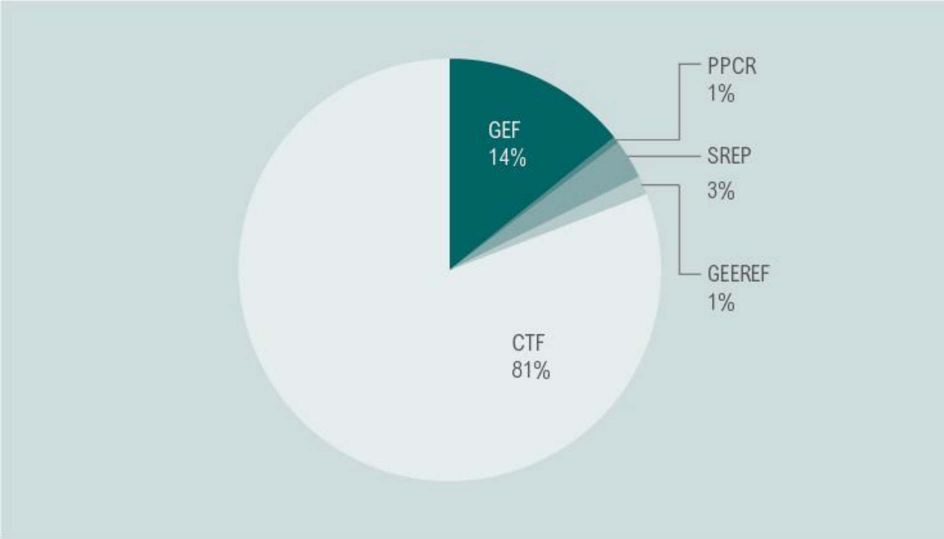
Figure 4: Target private, public and MCF investment by fund (across PFIs) (USD billion)



	CTF	GEF	SREP	GEEREF	PPCR
Public (net of MCF)	13,992	1,756	797	285	70
MCF	2,315	273	78	84	81
Private	8,036	2,245	36	60	-

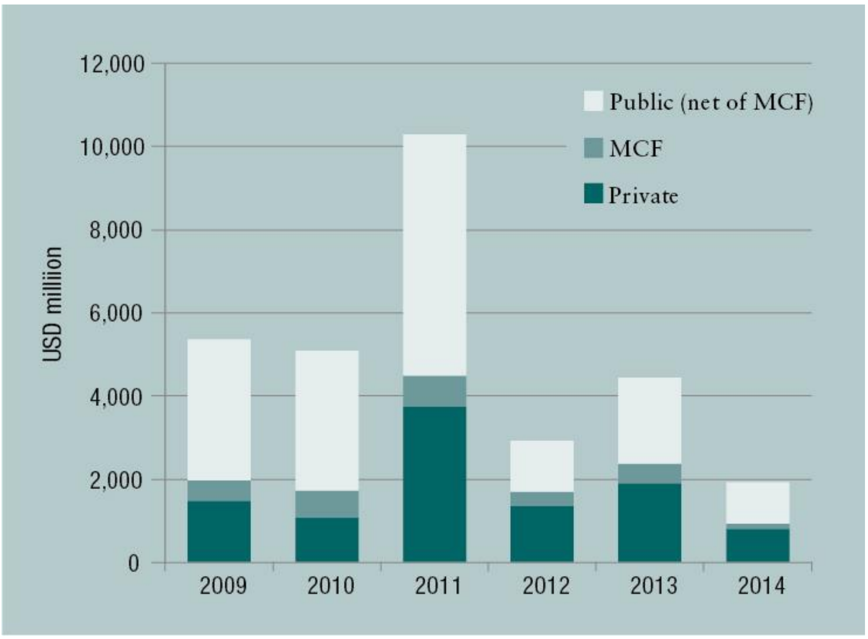
Our review found that the scale and number of the CTF PFIs dwarfed those of the other funds (by almost 200 times when comparing CTF and PPCR target finance volumes) (see Figures 4 and 5). The average size of PFIs is also significantly determined by the fund involved, with the CTF engaged in large interventions (over $0.5 billion), and with GEEREF and PPCR interventions one-tenth of that size (under $50 million). To avoid findings that are biased toward trends taking place within the CTF, the analysis in the following sections is undertaken at fund level.

Figure 5: Fund representation across PFIs (including public, private and MCF)



Finally, we note that fund approval for PFIs appears to have peaked in 2011, with volumes approved (and target co-financing) declining in 2012 and 2013 (see Figure 6).[12] As the figures used for analysis are targeted fund disbursements and targeted co-financing from public and private actors, we do not believe that these volumes are influenced by time required to establish interventions or raise private finance, but these findings may be linked to overall declines in approved climate finance in the last two years (Nakhooda, 2013).

Figure 6: Funding committed to PFIs (up to 31 March 2014)



[12] Our review only included approvals up to 31 March 2014.

3.3 Target private co-financing mix within PFIs

There are a number of PFIs that target high levels of private investment relative to public funds. There are many potential explanations for these targets, which are often intervention-specific, and are not necessarily linked to wider fund mandates or effectiveness.

On average, across all funds, the ratio of private investment to MCF finance alone is 4:1. However, if MCF support is combined with other public finance, the target ratio for combined public finance to private finance is 1:0.8. For the purpose of this analysis, PFIs with 'high' levels of private co-financing are defined as those PFIs where the level of private finance is expected to be 10 times or more the level of MCF contributions (see Figure 7).

The PFIs that target high levels of private investment (as compared to CF) are located in higher income countries including the BRICS (Brazil, Russia, India, China, and South Africa), OECD (Mexico) and European Union candidate countries (Turkey and Montenegro). The only exceptions to this finding are two PFIs in Colombia and Vietnam which both target high private co-financing through guarantees.

The MCF contributions to PFIs that target high levels of private finance have the following common characteristics:

- guarantees, risk transfer or risk sharing facilities which aim to backstop private investors
- small grants for technical assistance provided alongside large MDB loans
- relatively small concessional loans (usually from CTF) alongside large volumes of domestic (recipient country) public finance.

These findings can only be identified through reviewing individual PFIs in detail (see Figure 7 and PFI descriptions in Appendix 1) and demonstrates how important it is to look beyond the basic 'leverage' ratio in order to understand how and why CF could be linked to high levels of private co-financing (both targeted and realised).[13]

[13] There are a number of very useful sources which further discuss the limitations of leverage ratios including Brown et al. (2011) and Illman et al. (2014).

Figure 7: PFIs with the highest ratio of target private finance: MCF investment

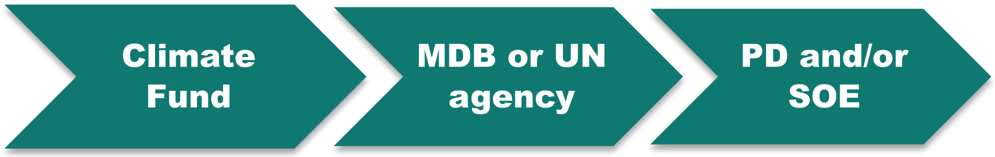
Intervention	Fund (PFI #)[14] / Country	Target private finance: MCF investment	Proposed structure
Green Energy Schemes for Low-Carbon City in Shanghai, China (Project Preparation Grant)	GEF (3) China	29:1	Small GEF grant alongside large World Bank loan
Hebei EE Improvement and Emission Reduction Project	GEF (4) China	22:1	Small GEF grant alongside large World Bank loan[15]
Russia EE Financing Project	GEF (7) Russia	21:1	Small GEF grant alongside large World Bank loan
Bancolombia Green Guarantee Mechanism	CTF (3) Colombia	19:1	CTF, IFC, World Bank guarantee covering 50% of Bancolombia[16] loans
Towards Carbon Neutral Tourism	GEF (30) Montenegro	19:1	Small GEF grant to establish a national tourism carbon fund
Geothermal Financing and Risk Transfer Facility	CTF (15) Mexico	15:1	CTF concessional loan alongside significant international (World Bank) and Mexican public finance
Mexico RE Program, Proposal III	CTF (18) Mexico	14:1	CTF concessional loans alongside significant domestic public finance
Partial Risk Sharing Facility for EE	GEF (5) India	13:1	Small GEF grant alongside domestic public finance to backstop loans to energy service companies
Small and Medium Enterprise EE Project	GEF (8) Turkey	13:1	Small GEF grant alongside large World Bank loan
Promotion of Non-fired Brick Production and Utilization	GEF (22) Vietnam	11:1	Small GEF grant as part of a loan guarantee fund
!Khi Solar One (50 MW) solar tower project	CTF (27.3) South Africa	11:1	CTF concessional loan and significant international (IFC, BMZ, European Investment Bank) and South African public finance

[14] See Appendix 1 for descriptions of each PFI.
[15] The GEF project documents state that this intervention aims to mobilise grants from private banks. It is not clear if this is an error within the documents, as one would normally expect banks to use different financial instruments (debt, lines of credit etc.).
[16] In April 2013 the CTF Trust Fund Committee cancelled $4.65 million of funding originally approved and extended the scope of potential beneficiaries of the project. These amendments were requested by both the Inter-American Development Bank and the International Finance Corporation due to difficulties in finding partners under the Colombian Sustainable Energy Finance Program – it was found there were limited opportunities for replication of the Bancolombia Green Guarantee Mechanism project by other financial institutions.

3.4 Fund business models (intermediaries and end recipients)

Each fund uses a different range of business models for PFIs. These are linked to the intermediaries (and/or implementing entities) through which they operate and to the end recipients that they target (see Figure 8). They are also linked to the financial instruments used and the actors providing co-financing – both of which are reviewed in Section 3.5. A summary of each model is presented below, including information on which models are most commonly used by which MCF.

Model 1: fund to MDB to company (public or private) (CTF and GEF)



Model 2: fund to private equity fund to company (GEEREF)

Model 3: fund to MDB to local financial institution to company (PPCR, GEF and CTF)

Model 4: fund to MDB to local public or third sector actor to company (GEF, CTF and SREP)

Model 5: 'model 3' with additional tier of intermediation by a financial institution (CTF)

Where information is available, the funds are found to target different types of end recipients, although most are private entities. The trends emerging for each fund are shown in Figure 8.

Figure 8: Primary end recipients for each fund[17]

Fund	Typical end recipient(s)
CTF	Primarily project developers, with a far smaller number being governments, state-owned enterprises or financial institutions
GEF	Primarily project developers and companies
SREP	Project developers, state-owned enterprise and companies
GEEREF	Only project developers and companies
PPCR	For the majority of PFIs this information is not available

Although this analysis of targeted chains of intermediaries and end-recipients is primarily descriptive, when (or if) funds begin to disclose information on disbursals or actual contributions of private finance, these frameworks could be included to assess the effectiveness of different intervention structures in mobilising private investment.

3.5 Financial structures (instruments and actors)

Just as there are gaps in information on end recipients (see Section 3.4) and volumes of private finance targeted (see Section 3.1), there is also only limited information available on the actors providing the finance and the instruments used within PFIs. This should be taken into account in reviewing the following findings regarding the financial structures used by the funds.

These gaps in information are most common for private investment: there are many cases for which we know the amount of private finance targeted, but not what type of actors will provide this finance or what instruments they will use (see Figures 9 and 10). In cases where we have information on private finance targeted, the GEF provides the most information about actors and instruments involved, with the SREP providing the least detailed information.

Information on the sources of public finance is much more detailed than the information on private finance and in a number of cases includes contributions from the developing country governments where PFIs are located. The sources of public finance are very diverse. The CTF targets the highest level of finance from recipient countries (host governments and national development banks). The GEF and PPCR primarily involve co-financing from multilateral finance institutions, while the GEEREF crowds in public co-financing from bilateral finance institutions. The information from SREP is too limited to identify trends regarding public co-financing. We find the main sources of public finance are: international (multilateral finance institutions), Mexico, Morocco, Japan, Germany, Indonesia, Turkey, Kenya, South Africa, the USA and France. Information on the sources of private finance are limited, but there is an indication of a role for investment from project developers and financial institutions in the GEF and CTF PFIs, and financial institutions supporting private equity funds alongside GEEREF.

[17] End recipient categories identified and applied in the analysis were a mix of public and private actors including: project developers, governments, state-owned enterprises, companies, and financial institutions.

Information on public finance instruments used (and levels of concessionality) is very detailed for a number of funds and PFIs, but in all cases there is far less information available for private finance. The most common public financial instrument used in PFIs is debt (concessional and non-concessional), with the exception of the GEEREF, where equity is the most common instrument, and the PPCR for which limited information on instruments is available. This finding on the use of debt in interventions that seek to target private co-financing has also been observed in analysis of bilateral climate finance interventions (Whitley, 2013). For private co-financing the information on instruments is very limited, and therefore the trends are unclear beyond a general finding that both private debt and private equity play a role.

Figure 9: PFI actors and instruments (CTF, GEF and SREP)

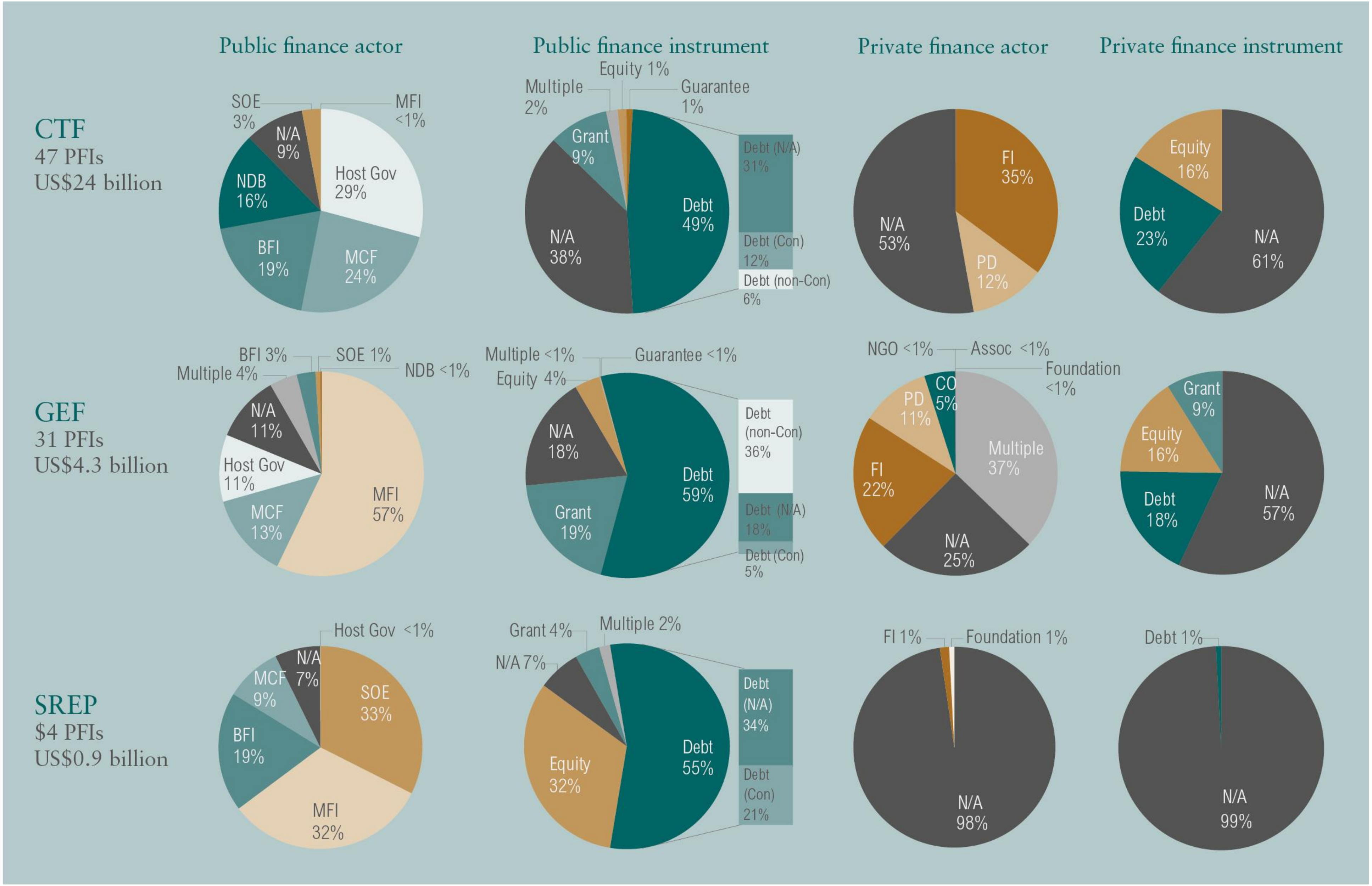
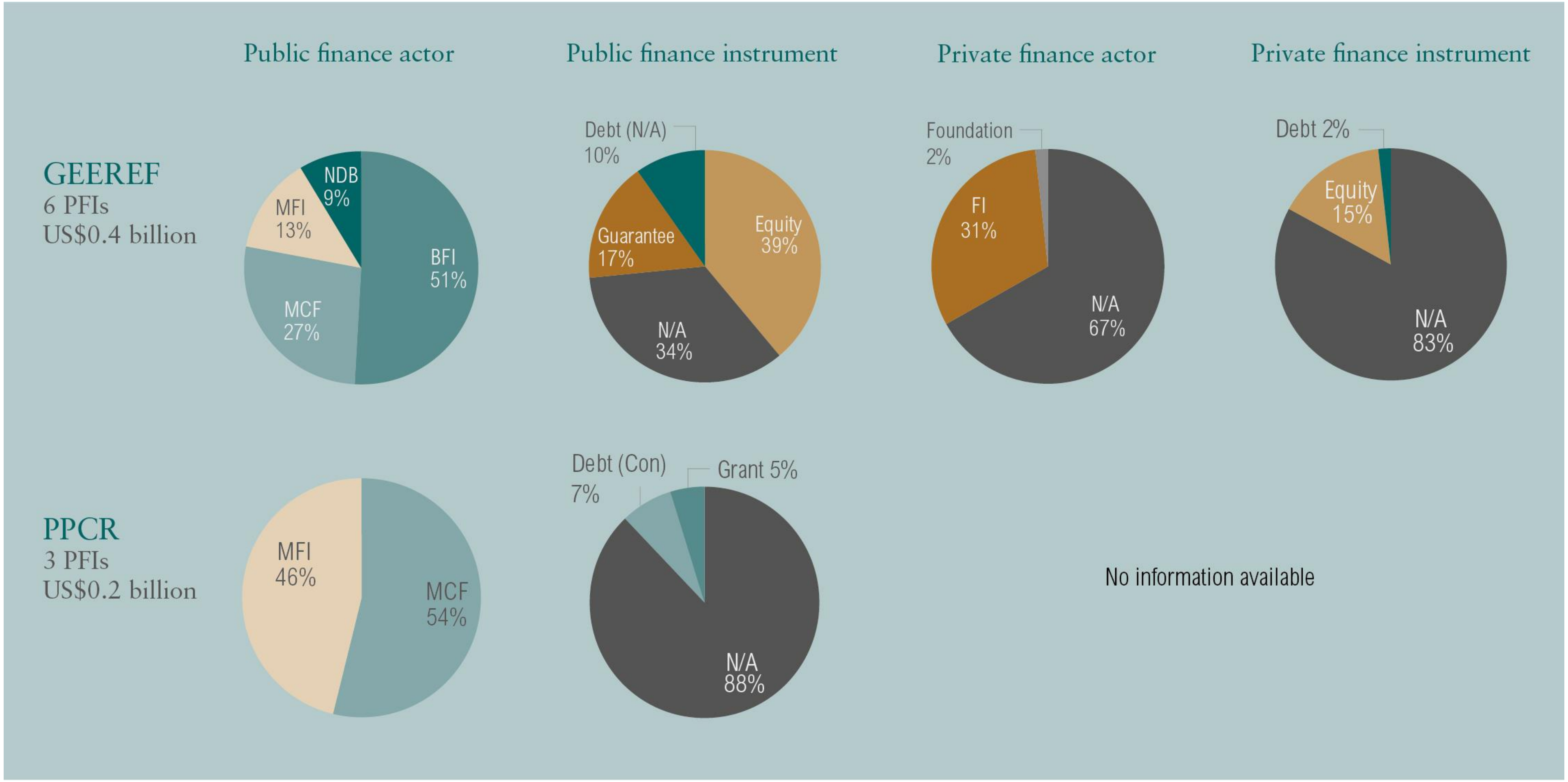


Figure 10: PFI actors and instruments (GEEREF and PPCR)



3.6 Locations targeted (income and regions)

The top 10 countries receiving finance across all PFIs are: Mexico, Morocco, Indonesia, Turkey, 'multiple' (or regional), China, Russia, Chile, Kenya and India. These findings roughly reflect the recipients of finance through the CTF with the exception of Russia, Kenya and India, which do not receive CTF funds through identified PFIs.

The locations of PFIs reflect the mandates of the funds, with the CTF primarily targeting higher income countries, the SREP and PPCR focusing on low-income countries, and GEEREF initiatives taking place at fund level, and therefore not focusing on individual countries. The GEF resources are fairly targeted across income groups with the exception of low-income countries (see Figure 11).

Figure 12 shows that the majority of PFI investment flows by the CTF are targeted on Latin America and the Caribbean (LAC) and the Middle East and North Africa (MENA). GEF is focused on non-OECD countries in Central and East Asia. The funds focused on low-income countries (SREP and PPCR) direct more resources to Sub-Saharan Africa (SSA).

Figure 11: Finance by country income group[18] (including MCF, other public and private) (USD million)

	High	Upper middle	Lower middle	Low	Multiple
CTF	827	14,015	9,313	-	188
GEF	847	1,487	902	66	972
SREP	-	-	6	906	-
GEEREF	-	-	-	-	429
PPCR	-	-	-	151	-

Figure 12: Finance by region[19] (including MCF, other public and private) (USD million)

	AP and SA	LAC	EAC	MENA	SSA	Multiple
CTF	3,578	8,927	3,215	5,759	2,864	-
GEF	1,917	524	1,201	253	320	58
SREP	113	6	-	-	793	-
GEEREF	276	71	-	-	82	-
PPCR	88	-	-	-	63	-

3.7 Activities targeted (adaptation vs. mitigation and sectors)

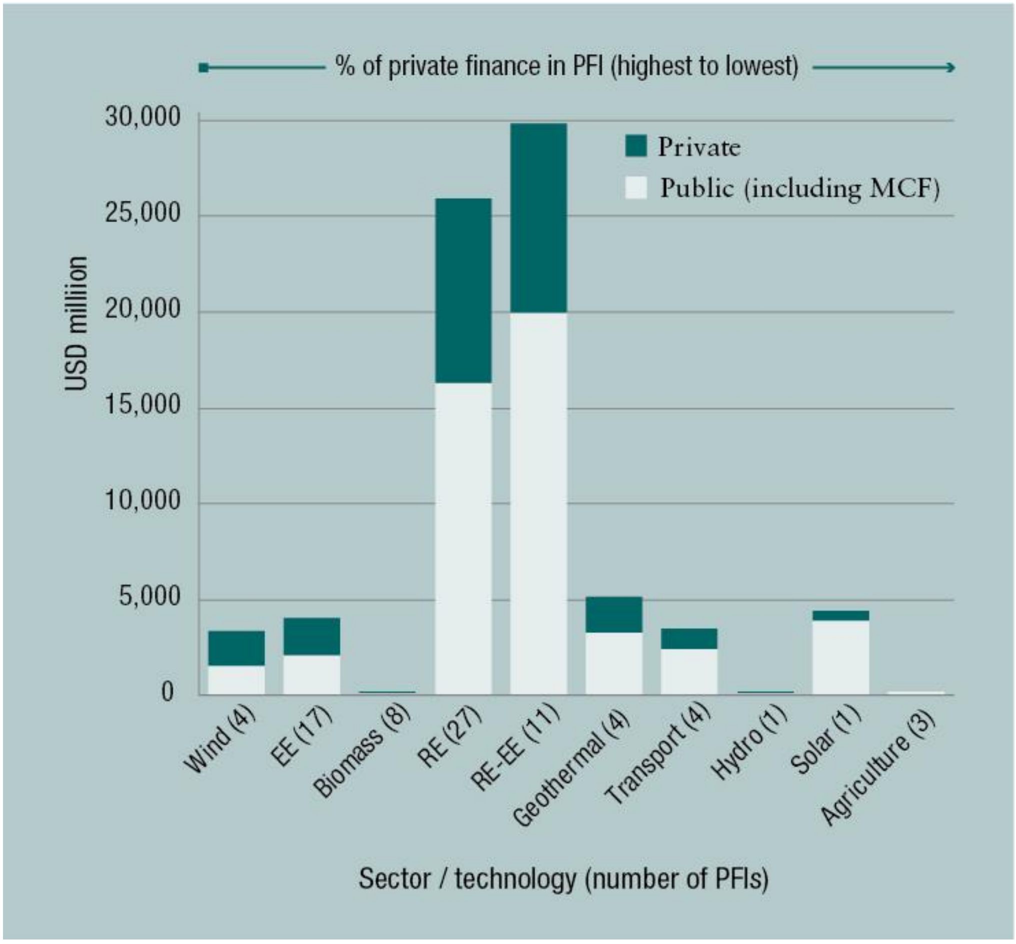
In line with the mandates of the funds, only the PPCR is focused on adaptation-specific activities, with the balance of PFIs focused on mitigation. There is an interesting mix of sector focuses across PFIs, with the CTF directing the greatest resources toward renewable energy (technology undefined), solar and geothermal power, GEF toward energy efficiency, SREP toward geothermal power, GEEREF toward renewable energy (technology undefined), and PPCR toward agriculture.

[18] http://data.worldbank.org/about/country-and-lending-groups
[19] http://data.worldbank.org/about/country-and-lending-groups

The data also allows us to observe trends in the balance of public and private resources across sectors and technologies (see Figure 13). This shows that among PFIs wind and energy efficiency projects target a significantly higher share of private co-financing compared to interventions focused on agriculture, transport or geothermal power.

As there are a limited number of PFIs in each sector or technology, and many PFIs are in the 'general' areas of energy efficiency or renewable energy, only broad conclusions can be drawn from the information currently available. However, this indicates the types of analysis that might be possible were more granular information to be made available across all MCF interventions, including information on funds disbursed.

Figure 13: Targeted private and public finance (including MCF) by intervention type (sector or technology)



3.8 Collaboration between MCFs

In a number of cases individual PFIs are structured to include investment from more than one MCF. This primarily involves targeted GEF funds within the envelope of larger CTF projects and programmes. Examples include GEF funds in CTF 1 (a large concentrated solar power project in Chile), CTF 17 (an efficient lighting and appliance programme in Mexico), and CTF 24 (a renewable energy project in the Philippines). In addition, the GEF 5 project (a partial risk-sharing facility for energy efficiency in India) targets both investment from CTF and the private sector (see Appendix 1 for additional details on each project).[20]

Though not within the remit of this study, it would be interesting to learn more about the impact of PFIs which access both concessional loans (through CTF) and grant support (from GEF), and how this differs from stand-alone interventions by the CTF and GEF which also use a mix of instruments (see Section 4).

Also, as highlighted in Sections 1.1 and 3.4, the majority of MCFs provide finance through and alongside a small group of multilateral financial institutions and UN agencies. By way of example, one-third of PFIs (31) target support from the World Bank Group.[21] They may also target the same private sector partners – as exemplified by GEF 32 and GEEREF 6 interventions, where finance is provided through the same intermediary fund manager (MGM Innova, LLC).

This use of the same channels and intermediaries may provide opportunities for complementary action (in addition to collaboration at intervention level), particularly where funds are using distinct but complementary financial instruments and intervention modalities.

3.9 Beyond directly targeting private finance: market-level interventions

The quantitative analysis in this report has been focused on findings across the 93 PFIs identified. However, it is important to note that in addition to activities that directly target private co-financing within interventions (projects, sub-projects and programmes), MCFs are also engaged in activities that aim to mobilise private investment through broader market-level interventions.

The GEF in particular, through its use of grants and in-kind support to its partners, is engaged in a number of interventions that aim to mobilise private investment by:

- building capacity within relevant government ministries
- formulating incentives (e.g. reduced import duty, faster licence approval and customs clearance, tax holidays on profit, and reduced taxes)
- developing approaches for subsidy phase-out
- establishing new financial instruments and developing the capacity of financial institutions
- managing outreach programmes and disseminating project experience and lessons learned.

It is not possible to determine if the GEF and its partners have the resources and capacities to achieve these stated objectives, but early research in this area by the World Resources Institute within the OECD-led Research Collaborative on Tracking Private Climate Finance suggests that there is an important role for combining resources across multiple actors who link market-level interventions with project-level interventions (Lefevre, 2013).

Recent detailed studies of the effectiveness of the CTF and the GEF by ODI have also found that:

[20] As an indication of discrepancies or gaps in information, the parallel CTF documentation for this project does not include information on targeted private investment.
[21] Comprising the International Bank for Reconstruction and Development, the International Development Association and/or the International Finance Corporation.

- Almost all (63 of 66) of the GEF 5 projects reviewed include a component aimed at strengthening policies, regulations or implementing capacity. In several cases, the GEF funding supported the costs of technical assistance or capacity building that would support investment programmes advanced by MDBs (Nakhooda and Forstater, 2013).
- The CTF experience suggests that a lack of strategic engagement on policies, regulations, and institutional arrangements and capacity can disrupt implementation and reduces the potential for investments to be transformational. One of the challenges in this context has been funding: grant and technical assistance finance is generally limited to project preparation grants of up to $1 million as well as support for learning. This meant that supplementary resources were needed to implement complementary projects that addressed these issues. Some programmes have strategically combined resources for policy engagement and technical assistance (for example grant resources from the GEF) with investment programmes financed through the CTF. These programmes seem poised to have significant long-term impacts (Nakhooda and Amin, 2013).

The value of linking direct project and programme level interventions with indirect interventions at market level has also been echoed in findings in the CIF evaluation, which states that:

> Very few investment plans earmark CTF funds towards tailoring the regulatory or policy environment. Consistent with the CTF design principles, CTF project concepts are primarily focused on the end of the program development chain, often providing financing or guarantees for projects to scale up renewable energy or energy efficiency deployment. That said, de-risking the policy element is the corner stone for market transformation; without supportive policies in place, private investment may be constrained and market growth limited. (ICF International, 2014)

Although a detailed analysis of indirect mobilisation of private finance is beyond the scope of this report, the findings from the broader research referred to above highlight the importance of reviews that incorporate both an analysis of country-specific market-level interventions that may indirectly mobilise private investment, and discreet PFIs.

As first steps to support analysis that reviews both direct and indirect interventions, ODI has developed a methodology for mapping incentives and investment at sector level, with an initial pilot in Uganda’s energy sector, and the World Resources Institute has developed an approach to examine the linkages across public interventions including targeted policy support, technical assistance, and finance (Whitley and Tumushabe, 2014; Srivastava and Venugopal, 2014). Early findings from ODI’s work in Uganda demonstrate that it is possible to map domestic and international finance (including climate finance) and domestic incentives (supported by climate finance) at sector and sub-sector level, and how this information might be used to inform future interventions to mobilise private investment.

4 Conclusions

The aims of this research were to increase understanding of the early efforts of MCFs to mobilise private investment and to identify key trends. This was undertaken through a detailed analysis of PFIs by a subset of five funds (CTF, GEF, SREP, GEEREF and PPCR).

Although the funds reviewed have explicit mandates to mobilise private finance, the transparency and accessibility of information on mobilised private finance is limited, meaning significant effort[22] was required to identify targeted private finance in ways that allowed comparisons to be made across funds. This is in part due to the diversity of reporting requirements across funds, with the GEF having the clearest guidelines, processes and information.

A significant barrier to analysis was that most information on investment is restricted to indicative or target investment as opposed to disbursement. As a result we were only able to assess how the climate funds aim to mobilise private investment, rather than how much private finance has been mobilised.

Nevertheless a number of findings emerge that are of relevance for broader bilateral and multilateral efforts to mobilise private investment to address climate change.

- Across the five funds reviewed, a total of 93 PFIs were identified, representing $30.1 billion in targeted finance. The breakdown of targeted investment was found to be 9% from MCFs, 35% from private sources, and 56% from other public sources (including from the domestic governments where the interventions are located). Fund approval for PFIs appears to have peaked in 2011, with volumes approved (and target co-financing) declining in 2012 and 2013.

- The scale and number of the CTF PFIs dwarfed those of the other funds (by almost 200 times when comparing CTF and PPCR target finance). The average size of PFIs is also significantly determined by the fund involved, with the CTF engaged in large interventions (over $500 million), with GEEREF and PPCR interventions one-tenth of that size (under $50 million).

- The funds all target very different shares of MCF, public and private finance, and across all funds the ratio of public to private finance within PFIs is low (1:0.8). The GEF on average targets the highest ratio of private co-financing.

- The majority of PFIs that target high levels of private investment occur in higher-income countries (BRICS, OECD or EU accession), and the primary role of the MCF in these PFIs is providing:

[22] Compiling the information in Appendix 1 required 1 month (one full time equivalent) using publicly available fund data.

- guarantees, through risk transfer or risk sharing facilities which aim to backstop private investors
- small grants for technical assistance provided alongside large MDB loans, and
- small concessional loans alongside large volumes of domestic (recipient country) public finance.

- In addition to an important role for public finance, including that from MCFs, multilateral and bilateral financial institutions, we also find that within a number of PFIs there is a significant role for public finance from developing country governments and national development banks, with public resources provided by Mexico, Morocco, Indonesia, Turkey, Kenya, and South Africa.
- The data collected on PFIs also allows us to observe trends in the balance of public and private resources across sectors (and technologies). This shows that among PFIs wind and energy efficiency projects target a significantly higher share of private co-financing compared to interventions focused on agriculture, transport or geothermal power.

In addition, this analysis allows us to identify early PFIs supported by multiple MCFs, in particular where the CTF and GEF are active within the same PFIs but are using different modalities and instruments. GEF programmes are playing an important role in in addressing regulatory and institutional barriers to private investment (using grants), which complements the role of the CTF in intervening to de-risk investments at the project level (using concessional debt). These findings are linked to wider observations and early research on the importance of combining project and market interventions at country level (including through support to policy development), and to opportunities for collaboration through the international organisations that are involved in the majority of PFIs.

Our research has presented important early insights into the current activities of a number of MCFs that aim to mobilise private investment. A more definitive analysis will require more information on the details of actual finance mobilised once it becomes available, complemented with qualitative research into the dynamics and achievements of executed interventions. This is an important frontier for continued research and analysis.

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Appendix 1

A link is provided to a detailed dataset on the private finance interventions (PFIs) of five multilateral climate funds (CTF, GEF, SREP, GEEREF, and PPCR).

http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9034.xlsx

The dataset includes information for each PFI on:

- Intervention title and description
- Identification if programme, project, or sub-project (within a wider funding envelope)
- Mitigation / adaptation
- Sector / sub-sector
- Region, country (and income group)
- Date of approval
- Implementing entity
- Public finance: actor name(s) and type(s), actor country(s) of ownership, type(s) of finance, and target(s) ($ amount)
- Private finance: actor name(s) and type(s), actor country(s) of ownership, type(s) of finance, and target(s) ($ amount)
- Intermediary(s): actor name(s) and type(s), and actor country(s) of ownership
- End recipient(s): actor name(s) and type(s), and actor country(s) of ownership

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Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ
Tel +44 (0)20 7922 0300
Fax +44 (0)20 7922 0399

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