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RAISING THE STAKES:
A SURVEY OF PUBLIC AND PUBLIC-PRIVATE FUND MODELS AND INITIATIVES TO MOBILIZE PRIVATE INVESTMENT

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EXECUTIVE SUMMARY

Over the past decade and especially in the past five years, industrialized governments and development finance institutions have launched a multitude of dedicated climate change funds and initiatives intended to mobilize private sector investment in mitigation and adaptation projects in developing countries. This paper examines this increasingly used model to channel climate finance, hereafter referred to as public and public–private climate funds and initiatives (PPCFIs).

The current version[1] of this working paper surveys 27 PPCFIs, representing approximately US$41.3 billion[2] in aspired or current capitalization.[3] It focuses on PPCFI objectives, scope, disbursement approaches, decision-making structures, and use of financial instruments.[4] Drawing from this initial survey of PPCFIs and from two workshops—co-hosted by the World Resources Institute (WRI) with KfW Development Bank in 2011, and with the Climate Markets and Investment Association (CMIA) in 2013—the paper also discusses PPCFI experiences in mobilizing private investment.

This paper comes at an important time as donors—industrialized nations—consider how to effectively mobilize finance for climate-relevant[5] activities in developing countries through existing bilateral and multilateral financial institutions and new channels like the Green Climate Fund. Climate change

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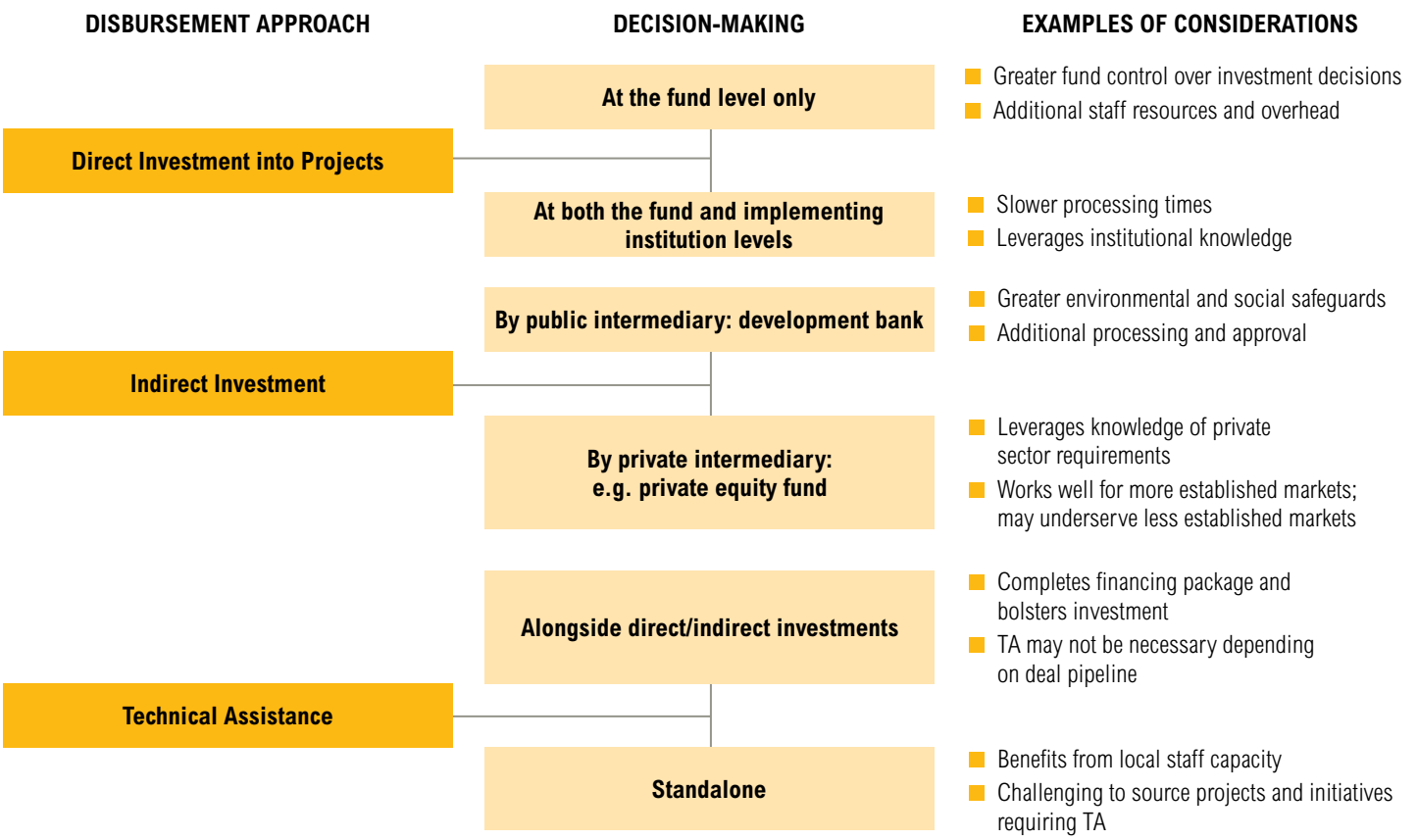
investment needs are rapidly growing in developing countries. The World Economic Forum estimates that US$5.7 trillion annual investment in green infrastructure (US$0.7 trillion of which must be *new and additional*) will be required by 2020 to limit greenhouse gas emissions to manageable levels.[6] Much of this investment will be required in developing countries, and the private sector will undoubtedly play a central role in achieving these targets.[7]

Preliminary Findings

Most PPCFIs focus on climate change mitigation rather than adaptation activities. One reason for this focus is that adaptation projects are often less attractive to private sector investment because they typically provide common goods or services without a clear revenue stream (for example, walls constructed to protect against sea level rise). Nevertheless, governments and development finance institutions should explore incentive structures, projects, and funding models that can mobilize private sector investment in adaptation activities. For example, investments in weather information provision, tourism infrastructure, and sustainable transport systems can meet public sector goals while providing a return on investment to the private sector.

PPCFIs tend to focus on established technology sectors and emerging market economies. These markets are typically less risky, have strong greenhouse gas mitigation potential, and are most conducive to mobilizing private sector investment.[8] But supporting institutions may be channeling too few dollars to less-developed countries and nascent markets where public and private sector finance is needed most. Furthermore, a focus on established markets increases the chances of the public sector crowding out private sector investment, particularly if public funding is provided on concessional terms (that is, loans with low interest rates or long repayment periods relative to commercial terms).

Figure 1 | **PPCFI Working Method Models and Considerations**



Source: WRI.

PPCFI decision-making structures and instrument offerings are strongly related to their disbursement approach, including whether a PPCFI is making direct or indirect investments into private sector projects or providing technical assistance. These approaches are not mutually exclusive, but each has a set of advantages and disadvantages related to who is making project approval decisions: the PPCFI itself, the PPCFI and its promoting or implementing institution, or the PPCFI and an intermediary. Examples of these trade-offs are shown in Figure 1.

A few key donor countries provide most of the public funding to the PPCFIs examined. Germany, Japan, the United Kingdom, and the United States have committed most of the resources to the aggregate PPCFIs surveyed, with a large share committed to the Climate Investment Funds—a multi-donor PPCFI that works through accredited multilateral development finance institutions. Australia, Canada, Denmark, France, the Netherlands, Norway, Spain, Sweden, and other bilateral donors have also provided significant climate financing to developing countries through PPCFIs.

Few PPCFIs have successfully attracted private sector money at the *fund or initiative level.* Given their novelty, it may be premature to evaluate PPCFIs successes. But so far, despite the aim of 11 of the PPCFIs to attract private sector capital as a funding source, only two PPCFIs have received sizeable private sector investment at the fund level: (1) the Climate Catalyst Fund (from the State Oil Fund of Azerbaijan and an unnamed German Pension Fund) and (2) the Global Climate Partnership Fund (from Deutsche Bank and the German pension fund Ärzteversorgung Westfalen-Lippe). Two additional PPCFIs, the Global Village Energy Partnership and Renewable Energy and Energy Efficiency Partnership, have received private sector contributions (from Barclays and the European Insulation Manufacturers Association, respectively) but only in small amounts.[9] Beyond co-investment, private sector actors also play a fund manager or co-manager role in some PPCFIs as evidenced by Credit Suisse's Customized Fund Investment Group and Deutsche Banks' roles in the Climate Public-Private Partnership (CP3-Asia) fund, and the Global Climate Partnership Fund, respectively.

The limited level of co-investment in PPCFIs at the fund or initiative level may be driven by the following interrelated trends:

1. *Limited deal pipeline* of attractive private sector projects (that is, projects with high enough returns relative to risks over an investment horizon), which can impede a PPCFIs ability to achieve returns in line with private sector expectations as a co-investor;
2. *Inadequate scale* that creates high processing costs for the private sector relative to its potential capital contributions;
3. *Political and legal mandates or institutional culture* that can constrain innovation as well as flexibility to respond to private sector requirements; and
4. *Limited track record of PPCFIs.* As most have launched in the past two to five years, many have yet to disburse funds or demonstrate a track record of returns that would entice private sector co-investment.

The trends outlined above can also impede private sector co-investment at the *project level.* Other challenges at the project or disbursement level include:

- **Limited private sector awareness of what PPCFIs exist, how to access PPCFIs, and PPCFI co-investment timelines and processes.** The multitude of PPCFIs, models, and their varying requirements can confuse recipient countries and private sector actors. Furthermore, for recipients applying for funding from multiple PPCFIs, varying application and reporting processes can be time consuming and sometimes redundant.
- **Flexibility, innovation, and efficiency in financing projects are determined by the level and type of financial inputs into PPCFIs.** Multi-donor PPCFIs can achieve scale, but this structure can lead to operational inefficiencies and limited investment in underserved markets since activities may be constrained by the least-flexible donor to the PPCFI.
- **A biased (i.e., oriented towards more mature markets) and limited global pipeline of investable projects can create finance supply and demand mismatches.** The drive of PPCFIs to rapidly spend committed public resources and demonstrate

success to donors, especially when combined with limited local market expertise, can further skew finance supply toward established markets. In some markets this has led to unhealthy competition between public and private actors, and in some cases among public actors. Such unhealthy competition is troubling as concessional finance may unnecessarily subsidize or crowd out private sector investment in established markets. Meanwhile, in less mature markets and projects, the level of concessionality and amount of risk the public sector takes on may not be adequate to catalyze sought-after private sector co-investment.

Recommendations

Given the growing number of PPCFIs and the need to meet developing countries' significant investment needs, donor governments and supporting institutions must collectively ensure that PPCFIs mobilize private investment effectively and use public resources accountably. Based on this paper's preliminary findings, WRI recommends current and proposed PPCFIs and their supporting institutions, donor governments, and intergovernmental bodies (like the United Nations Framework Convention on Climate Change (UNFCCC) Standing Committee on Finance and inter-institutional networks like the International Development Finance Club (IDFC)) take the following steps:[10]

1. Promote Scale and Innovation by Enabling Investment and Building Sound Institutions

Donor governments must allocate more resources to fostering climate-friendly markets through dependable policies that promote an attractive risk-reward profile, achieve scale, and promote healthy competition. Without allocating appropriate resources to these foundational activities,[11] the pipeline of investable deals will remain limited, unhealthy competition among public institutions and between public and private actors will continue, and public money will likely be used ineffectively.

Donor governments must also explore ways to fund multi-donor PPCFIs without creating redundant processes or limiting the scope of activities to suit the goals of the least-willing participants. Flexible financial inputs can promote innovation within PPCFIs, but there are notable trade-offs: for example, governments can typically provide larger volumes of finance as loans rather than grants.

Given the overlapping priorities of many PPCFIs, landscaping the unique role and comparative advantage of PPCFIs and, indeed, of each public financing institution in the climate finance architecture, is an important next step in improving PPCFI effectiveness in mobilizing private investment.

2. Increase Private Sector Awareness and Information

Navigating the complex landscape of PPCFIs can be daunting for both the public and private sector. Given the limited information available, private sector actors still seek finance in a relatively ad-hoc and relationship-driven manner, and require deep pockets to sustain business activities until finance is secured. This obstacle especially hurts small companies and applicants from poorer countries, but even larger companies and funds often struggle to understand where to go for public finance sources and how to meet the associated requirements. To ensure equitable access to PPCFI finance, public actors must ensure that the private sector, recipient governments, peer PPCFIs, and development finance institutions are aware of available public money and can access this money efficiently. Passive information tools like online databases can help the private sector navigate the complex landscape of PPCFIs, but active tools such as relationship managers within public institutions and other advisory services can be particularly impactful.

3. Improve Access and Processes while Maintaining Standards and Safeguards

Accessing PPCFIs can be complex and cumbersome given the varying requirements of public institutions and the multitude of PPCFIs. Some of this difficulty and redundancy may be fixed by streamlining and harmonizing processes among PPCFIs. However, due diligence concerns and institutional inertia might make it hard for institutions to come to a consensus. Furthermore, trimming processes could undermine environmental and social safeguards and the financial longevity of and confidence in public institutions.

Nevertheless, opportunities to improve private sector access and PPCFI processes include:

- Providing collective information to the private sector on the availability of funds, co-investment timelines, basic access requirements, and internal contacts to help navigate the unique requirements of each PPCFI;
- Co-investing in funds where requirements and processes are clearly defined at the outset and redundancies among institutions are minimized;
- Co-syndicating to minimize work for both the public and private sector; and
- Agreeing on harmonized reporting indicators, approval procedures, and negotiation terms—or at least principles—among public sector institutions, in close consultation with the recipient country governments and the private sector.

4. Apply Lessons to the Green Climate Fund

The future Green Climate Fund (GCF)—an international mechanism intended to serve as a major channel for climate finance flowing from developed to developing countries in coming years—can help optimize public climate finance by aggregating finance and matching supply to needs. The Green Climate Fund is intended to include a dedicated private sector facility (PSF) that will "directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international levels."[12] The GCF board should consider how best the PSF can add value to, coordinate, or change the existing PPCFI landscape (for example, through financial incentives). The GCF board should also draw from the various PPCFI disbursement approaches, governance structures, and financial instrument offerings to inform its own operational and governance decisions.

Summary

Ensuring the ambitious, effective, and accountable use of climate finance is a key concern both to donors, who need to provide assurances to their taxpayers, and to recipients, who want to maximize the impact of the limited funds available to them in the most cost-effective manner. Public actors can leverage their limited funds by mobilizing private sector investment, but must do so in a way that avoids a duplication of efforts, identifies and addresses finance gaps, and enables both private and public sector recipients to access funds more efficiently. Collective action, a sense of partnership among supporting institutions, and an understanding of recipient capacity and the associated decision-making processes will all be necessary to mobilize the scale of resources required to address climate change mitigation and adaptation in developing countries.

Box 1 | Key Terms

Several terms used in this publication have either been established recently or do not have widely accepted definitions. Key terms are defined below as used in this paper.

COUNTRY CLASSIFICATIONS

Developed countries: Annex II countries, which are a subset of industrialized countries listed in Annex I of the United Nations Framework Convention on Climate Change (UNFCCC) that excludes economies in transition. These countries are required under the UNFCCC to provide financial resources to assist developing countries to mitigate and adapt to climate change.

Developing countries: Non-Annex I countries as defined by the UNFCCC. Broadly excludes industrialized nations (Annex I) including economies in transition.

Emerging markets: A subset of developing countries that have exhibited rapid growth in recent years; examples commonly cited include Brazil, India, China, and South Africa. Russia is often categorized as an emerging market, but it is considered as a transition economy by the UNFCCC and in this paper.

Least developed countries (LDCs): A subset of developing countries that exhibit the lowest relative levels of socioeconomic development (as defined by the United Nations) among developing countries.

Transition economies or countries: Another subset of Annex I, encompassing countries not required to provide financial assistance to non-Annex I countries; examples of transition countries include Turkey and Russia.

PROJECT AND MARKET CLASSIFICATIONS

Climate-relevant projects: Projects in renewable energy, energy efficiency, agriculture, transportation, water infrastructure and treatment, forestry, sustainable land use, adaptation infrastructure (for example, against extreme weather events and sea level rise), and other sectors that promote greenhouse gas emissions reductions or assist in adaptation to climate change impacts.

Low-carbon projects: A subset of climate-relevant projects, defined narrowly in this publication as those within the energy efficiency, renewable energy, and related infrastructure sectors.

Demonstration and early-stage projects: Projects used to exhibit the viability of emerging or new technologies that have yet to gain market acceptance and/or prove their financial viability.

Nascent or early-stage market: A market, typically small in size, that is in an early stage of development but has the potential for growth. It is often challenging to attract private sector capital in nascent markets since the markets' financial viability is yet to be proven.

PRIVATE AND PUBLIC SECTOR CLASSIFICATIONS

Private sector: Sector of the economy that is not controlled by the state. This category comprises a wide range of actors including individuals (consumers), corporations, and private associations (like philanthropies and cooperatives). This paper focuses on three types of private sector actors: capital providers (investors), project developers (including corporations, small and medium-sized enterprises, and contract project developers), and market facilitators (including banks, rating agencies, credit/liquidity providers, and information/data providers). These private sector actors may be based in developed or developing countries, but this paper focuses on their activities in developing countries.

Private sector capital or private capital: Capital provided by the "private sector" (versus the public sector), whether from foreign or domestic sources.

Private sector participation: "Private sector" investment in, financing, execution, or maintenance of a project.

Private sector project: Any activity led by the private sector that involves some form of capital investment. For the purposes of analysis in this paper, WRI considered any transaction that involved the delivery of financial resources from a public financial institution to support a private sector activity as a private sector project.

Public finance: Public dollars (raised through fiscal revenues such as taxes and other government income streams) used to fund the production and distribution of public goods or to address market failures.

Public climate finance (or climate-relevant finance): Public finance from developed countries used to support climate-relevant projects in developing countries, including low-carbon projects. This paper discusses the use of public climate finance to mobilize private sector investment.

Public financial instruments: Tools available to public institutions to provide financial support for public and private sector projects. These generally take one of three main forms:

- Debt/loans—The most common source of finance for upfront and ongoing project costs;
- Equity—An ownership stake in a project or company; builds a project or company's capital base, allowing it to grow and access other finance;
- Derisking instruments—include insurance, guarantees, liquidity facilities, swaps, and derivatives; help projects, companies, and their investors manage specific types of risk.

INSTITUTIONAL CLASSIFICATIONS

Bilateral development finance institutions (BDFIs): Public financial institutions that provide cross-border finance, typically from one developed country to multiple developing countries for economic development. These institutions commonly provide some combination of debt and equity investment, guarantees, and technical assistance on a variety of terms, ranging from grants to market rates.

Climate finance mechanisms: Dedicated international climate funds that channel finance from developed to developing countries for climate-relevant projects. Examples include the Global Environment Facility, the Climate Investment Funds, and the proposed Green Climate Fund.

Domestic development finance and climate finance institutions: National development banks, government agencies, and nationally sponsored climate funds. These institutions play an increasingly critical role as intermediaries and providers of climate finance in their respective countries, especially in emerging markets.

Export credit and investment insurance agencies (ECAs): Public financial institutions whose primary aim is to support exporters and investors doing business overseas. The majority of this financing takes the form of guarantees and political risk insurance, by which the institution commits to cover exporter or investor losses in the event of foreign political or commercial upheaval.

Multilateral development finance institutions: Global and regional financing institutions that provide funds using their own capital (raised using capital initially provided by multiple government donors) or on behalf of multiple government donors. Examples include the World Bank Group, the Asian Development Bank, the European Investment Bank, the European Bank for Reconstruction and Development, the African Development Bank, and the Inter-American Development Bank.

Public-Private Climate Investment Funds and Initiatives (PPCFIs): Dedicated climate change funds and initiatives intended to *mobilize private sector investment* in mitigation and adaptation projects in developing countries.

PPCFI Supporting Institutions: Development finance, donor government, and private sector financial institutions that manage, implement, invest in or otherwise to contribute to activities of PPCFIs.

Private sector–facing development finance institutions: Public institutions that provide crossborder finance to promote private sector development in developing countries. They may be standalone institutions or a separate unit within a larger institution. These institutions may also be bilateral (e.g., Overseas Private Investment Corporation), regional, or international (e.g., International Finance Corporation).

Public financial institutions (PFIs): Public institutions that provide finance to support public and private sector projects as well as policies and programs that serve the public good, whether for economic, environmental, or social benefit. Examples include donor governments; export credit and aid agencies; multilateral, bilateral, and national development banks; and international entities.

Source: WRI.

I. CONTEXT AND SURVEY METHODOLOGY

As global mean temperatures rise, public actors are seeking ways to mobilize investments at the scale needed to reduce greenhouse gas emissions and help countries adapt to the impacts of climate change. The transition to a low-carbon, climate-resilient economy will be especially challenging for developing countries. In 2008–09, experts projected that developing countries will need US$300 billion annually by 2020 and up to US$500 billion annually by 2030 for climate change mitigation *alone*.[13] More recent projections find that US$5.7 trillion in annual *global* investment in green infrastructure (US$0.7 trillion of which will be *new, incremental* finance needs) is required to limit greenhouse gas emissions; much of this new infrastructure will be in developing countries.[14]

As detailed in prior papers in WRI's Climate Finance Series,[15] private investment is playing an increasingly important role in developing country economies. Recognizing this, public actors are considering how best to harness and redirect this investment toward climate-relevant (see Box 1) activities. WRI's 2012 paper, "Moving the Fulcrum,"[16] introduced general barriers to investment and identified how these barriers can be addressed through policy support and financial instruments. The second and third papers in the private-sector-focused set of WRI's Climate Finance series examined financial instruments employed by the World Bank Group, the Clean Technology Fund, the Global Environment Facility, the Overseas Private Investment Corporation, and the Export-Import Bank of the United States.

This fourth paper maps the landscape of public-private climate funds and initiatives (PPCFIs), which have become an increasingly common mechanism for mobilizing private sector investment into climate change mitigation and adaptation activities in developing countries. The 27 PPCFIs surveyed represent approximately US$41.3 billion[17] in aspired or current capitalization, and vary by objectives, theme, geography, sector, and supporting institutions. The paper aims to provide decision-makers with early insights into how to plug gaps, enhance efficiencies, and improve the collective impact of PPCFIs and other initiatives to mobilize private investment, including the proposed Green Climate Fund and its Private Sector Facility.

The paper is structured as follows:

- This section summarizes the paper's survey methodology.
- Section II examines key characteristics of the PPCFIs, including their scope and supporting institutions.
- Section III identifies several PPCFI models and their working methods, including disbursement approaches, structures, and their use of financial instruments.
- Section IV identifies the working methods of existing platforms and partnerships that involve PPCFIs.
- Section V discusses methods by which PPCFIs can overcome the challenges involved in mobilizing private investment.

Data and Analytical Approach

This paper uses primary research and analysis, consultations with public and private sector actors accessing funds from PPCFIs, and inputs from two workshops (a 2011 WRI-Entwickslungbank (KfW) workshop and a 2013 WRI-Climate Markets and Investment Association (CMIA) workshop) as the basis for its analysis. While WRI attempted to compile a comprehensive and diverse list of PPCFIs (see Table 1), there is currently no resource that comprehensively lists climate change funds and initiatives that specifically aim to mobilize private investment. WRI aims to update this working paper periodically to reflect changes in the survey of PPCFIs and add additional PPCFIs—particularly those created or implemented by developing countries.

Selection Criteria and Sources: WRI examined 27 PPCFIs (see Table 1) that were either in operation or had been proposed by the end of 2012 or early 2013 using data from the Heinrich Boll Stiftung and Overseas Development Institute's (ODI) *Climate Funds Update* website,[18] and the World Bank's and United Nations Development Programme's *Climate Finance Options* website.[19] In addition, WRI consulted with multilateral development banks and select bilateral development banks to capture PPCFIs not listed on these websites. To be included in this analysis, each PPCFI had to have (1) an explicit climate change focus and (2) an aim to mobilize private investment in developing countries. Please visit http://www.wri.org/publications/raising-the-stakes for a detailed listing of PPCFIs and their associated characteristics.

Data Points: The quantitative and qualitative data points below were chosen to analyze trends within and among the PPCFIs examined. To cull this data, WRI relied on publicly available information as well as consultations with PPCFIs' supporting institution(s).

- Objective and scope, including thematic, industry and geographic foci
- Institutional size; specifically, the current or projected corpus of the PPCFI[20]
- Working methods employed, including the finance sourcing and disbursement methods
- Use and range of financial instruments (grants, loans, equity, etc.,)
- Inter- and intra-institutional relationships

Analytical Approach and Limitations: WRI's analysis of these PPCFIs focused on identifying gaps or inefficiencies in mobilizing private investment and establishing what drives those gaps, depending on the working methods of the PPCFI. To understand these gaps, we examined areas of overlap in the purpose, scope, and offerings of the PPCFI relative to its peers and sponsoring institutions. We also identified and tested gaps through staff consultations with supporting institutions and through our workshops. Relevant limitations and caveats include:

- The list of PPCFIs is not exhaustive. WRI plans to expand and track this database of PPCFIs over time, and eventually expand the analysis and recommendations to ensure broader applicability. Updates will include developing-country PPCFIs ("national PPCFIs") that are excluded from the analysis because of limited data availability and time constraints.
- Because of the dynamic nature of PPCFIs, WRI was able to examine only certain data points (such as aspired or current size of PPCFIs) at the end of 2012, or early 2013; thus, the related conclusions may need to be updated in the future.
- WRI's mapping does not consider the environmental or financial performance of individual projects, PPCFIs, or recipient governments, since this paper focuses on the working methods and institutional linkages of these PPCFIs rather than on the projects they support. Furthermore, this type of evaluation would be

Table 1 | **Summary of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/13**

PUBLIC AND PUBLIC-PRIVATE CLIMATE FUNDS AND INITIATIVES	ACRONYM	SUPPORTING INSTITUTION(S)	CURRENT OR ASPIRED SIZE (MILLIONS)	PURPOSE
Asian Development Bank Carbon Market Program	ACMP	Asian Development Bank (ADB)	US$267	Increase the number of clean energy and energy efficiency projects in the Asian Development Bank's developing member countries; assist Asia-Pacific Carbon Fund (APCF) and Future Carbon Fund (FCF) participants in meeting emission-reduction commitments; capitalize increased investments from developed countries to improve energy access in the Asia and Pacific region.
Asia Climate Change and Clean Energy Venture Capital Initiative	AVCI	ADB	US$60	Accelerate private-sector-based innovation, transfer, and diffusion of climate change mitigation and adaptation technologies by providing an equity infusion into venture capital funds that will invest in early-stage climate technology companies.
Brazil Energy Efficiency Guarantee Mechanism	EEGM	Inter-American Development Bank (IDB)	US$25	Address barriers in the energy-efficiency market for buildings in Brazil, such as lack of specific financing mechanisms or related expertise.
Canadian Climate Fund for the Private Sector in the Americas	C2F	IDB and Canadian Government	US$250	Cofinance mitigation or adaptation private sector projects that require concessional loans or guarantees to be viable. Priority sectors include renewable energy, energy efficiency, biofuels, sustainable agriculture, forestry and land use, and adaptation.
Climate Catalyst Fund	CCF	International Finance Corporation (IFC), and UK Government's International Climate Fund (ICF) under its Climate Public-Private Partnership (CP3) Fund	US$154	Stimulate the development of climate funds and climate-friendly projects and companies, which are expected to play a key role in accelerating the growth of investment in renewable energy and other low-carbon solutions.
Asian Development Bank—Climate Change Fund	ADB-CCF	ADB	US$58	Facilitate greater investments in developing member countries to address the causes and consequences of climate change.
Clean Energy Financing Partnership Facility	CEFPF	ADB	US$275	Improve energy security in the Asian Development Bank's developing member countries and decrease the rate of climate change.
Climate Investment Funds	CIF	ADB, African Development Bank (AfDB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IDB), World Bank Group (WBG)	US$7,600	Demonstrate the role international climate finance can play in catalyzing a transformation to low-carbon economic development.

Table 1 | **Summary of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/13, continued**

PUBLIC AND PUBLIC-PRIVATE CLIMATE FUNDS AND INITIATIVES	ACRONYM	SUPPORTING INSTITUTION(S)	CURRENT OR ASPIRED SIZE (MILLIONS)	PURPOSE
Climate Public Private Partnership	CP3-Asia	UK Department for International Development (DfID), ADB	US$90	Establish an investment vehicle through which public sector capital can attract institutional investors to invest in resource-efficient and low-carbon private equity and infrastructure assets.
Clean Technology Initiative Private Financing Advisory Network	CTI-PFAN	Asia Pacific Partnership (APP), Clean Technology Initiative (CTI), International Center for Environmental Technology Transfer (ICETT), Renewable Energy and Energy Efficiency Partnership (REEEP) U.S. Agency for International Development (USAID)	US$140	Assist in the rapid increase in investment in businesses and projects with high potential for greenhouse gas mitigation, profitability, and scalability.
Energy Efficiency Finance Facility	EEFF	IDB and the Nordic Development Fund (NDF)	US$50	Support Latin American and Caribbean companies to make investments in energy efficiency and small-scale, self-supply renewable energy projects that will reduce energy costs and greenhouse gas emissions.
Energy Sustainability and Security of Supply Facility	ESF	European Investment Bank (EIB)	US$6,500	Finance investment-grade energy projects outside the European Union as a dedicated multiannual facility.
Global Climate Partnership Fund	GCPF	KfW Entwicklungsbank (KfW), German Federal Environment Ministry (BMU)	US$200	Enable environmentally friendly economic growth in emerging and developing countries while contributing to mitigation of climate change, achieving economic sustainability for the PPCFI, and attracting private and public capital into climate finance.
Global Energy Efficiency and Renewable Energy Fund	GEEREF	European Commission, Government of Norway, Government of Germany, EIB, European Investment Fund (EIF)	€112	Fund of funds to provide global risk capital through private equity investment for SME energy efficiency and renewable energy projects in developing countries to support sustainable development and combat climate change.

PUBLIC AND PUBLIC-PRIVATE CLIMATE FUNDS AND INITIATIVES	ACRONYM	SUPPORTING INSTITUTION(S)	CURRENT OR ASPIRED SIZE (MILLIONS)	PURPOSE
Global Village Energy Partnership	GVEP	Energy Sector Management Assistance Program (ESMAP), DfID, United Nations Development Programme (UNDP)	US$7	Provide or mobilize start-up and growth capital to early stage energy SMEs to reduce poverty by providing accelerated access to modern energy services.
Interact Climate Change Facility	ICCF	Agence Française de Développement (AFD), EIB, European Development Finance Institutions (EDFI)	€500	Promote sustainable development of the private sector in African, Caribbean, and Pacific states and enhance combined climate action funds by allowing faster and more reliable access to co-investment.
International Energy and Climate Initiative	Energy+	Government of Norway	US$300	Contribute to providing access to efficient energy services to all through increased development of renewable energy and energy efficiency, and to mitigate the energy sector's impacts on climate.
UK International Climate Fund	ICF	UK Government	US$4,640	Demonstrate that building low-carbon, climate-resilient growth at scale is feasible and desirable; support the negotiations at the UNFCCC; and drive innovation and new ideas for action, and create new partnerships with the private sector.
International Climate Initiative	ICI	Government of Germany	US$1,085	Promote climate protection projects in developing, emerging, and transitional countries.
Pacific Environment Community Fund	PECF	Pacific Island Forum Leaders, Government of Japan	US$66	Address environmental issues (including climate change) while supporting national and regional priorities and frameworks and the programs of Pacific regional organizations, including through appropriate Japanese environmental technologies.
Renewable Energy and Energy Efficiency Partnership	REEEP	UK Government	€18	Facilitate the transformation of energy systems by accelerating the uptake of renewables and energy efficiency technology as a means of reducing carbon emissions, increasing energy security, and improving worldwide access to sustainable energy by the poor.
Renewable Resources Investment Funds	RRIF	Overseas Private Investment Corporations (OPIC)	US$500	Target private equity investment in renewable resource sectors to manage environmental challenges of fast-growing economies and enhance the farming sector in Africa.

Table 1 | **Summary of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/13, continued**

PUBLIC AND PUBLIC-PRIVATE CLIMATE FUNDS AND INITIATIVES	ACRONYM	SUPPORTING INSTITUTION(S)	CURRENT OR ASPIRED SIZE (MILLIONS)	PURPOSE
Seed Capital Assistance Facility	SCAF	Global Environment Fund (GEF), United Nations Environment Programme (UNEP), AfDB, ADB	US$12	Help energy investment funds provide seed financing to early-stage clean-energy enterprises and projects.
Sustainable Energy and Climate Change Initiative	SECCI	IDB, Government of Spain, Government of Germany, Goverment of Japan, UK Government, Government of Finland, Government of Italy, Government of Austria	US$87	Provide comprehensive sustainability options in areas related to the energy, transportation, water, and environmental sectors.
Sustainable Energy for Africa Fund	SEFA	Government of Denmark, AfDB	US$58	Build capacity and provide investment capital for sustainable energy to SMEs in Africa.
Sustainable Energy Initiative	SEI	EBRD	€11,100	Focus and drive EBRD's work on sustainable energy and climate change at both the strategic and operational levels.
Initiative for Climate and Environmental Protection	IKLU	German Federal Ministry for Economic Cooperation and Development (BMZ)	€2,400	Leverage Germany's technologies and expertise for climate- and environment-related investments in developing countries through the provision of concessional loans and technical assistance.

Notes: The "size" of the PPCFI represents the capital contributed or projected contributions as of 2012 or 2013. Sizes are not comparable since projected contributions are based on different future time horizons. Errors and omissions should be directed to WRI: Please email CPolycarp@wri.org and Svenugopal@wri.org. Please visit http://www.wri.org/publications/raising-the-stakes for a detailed listing of PPCFIs and their associated characteristics.

Source: WRI, using publicly available data and supporting institutions' websites.

premature considering that the majority of PPCFIs examined have launched only in the past two to five years, and many have yet to disburse funds.

II. PPCFI SCOPES AND SUPPORTING INSTITUTIONS

The PPCFIs WRI examined all focus on addressing climate change in developing countries and mobilizing private sector investment in related activities, but their supplementary objectives and working methods vary. This section's description of PPCFI scopes and supporting institutions provides important context for the subsequent section's analysis of PPCFI working methods and institutional linkages (see Box 2 for key takeaways). For example, PPCFIs with a limited scope may find it more effective to use a narrow set of financial instruments that is customized for their targeted recipients.

Scopes

Private Sector Scope

Several PPCFIs focus narrowly on mobilizing resources from specific investor classes or

supporting specific types of private sector actors. For example, the Global Energy Efficiency and Renewable Energy Fund (GEEREF) and Renewable Resources Investment Funds (RRIF) target private-equity investors; the Climate Public Private Partnership (CP3-Asia) targets institutional investors such as pension funds; the Asian Venture Capital Initiative (AVCI), Clean Technology Initiative Private Financing Advisory Network (CTI-PFAN), and the Seed Capital Assistance Facility (SCAF) support early-stage activities of project developers; and the Sustainable Energy for Africa (SEFA) fund targets capacity building of small- and medium-sized enterprises (SMEs). Among those with broader private sector engagement activities, are the GCPF which seeks to attract "private and public capital into climate finance"[21] and the Interact Climate Change Facility (ICCF) which aims to "promote sustainable development of the private sector."[22]

Thematic and Sector Scope

All PPCFIs examined tackle climate change mitigation; less than half focus on adaptation (Table 2). Thirteen of the 27 PPCFIs reviewed had broad objectives; for example, the Global Climate Partnership Fund (GCPF) aims to "enable environmentally friendly economic growth"[23] while the UK Government's International Climate Fund (ICF) aims to demonstrate the feasibility of "low-carbon, climate-resilient growth."[24] A few of the PPCFIs, including the AVCI, the RRIF, and the Inter-American Development Bank (IDB)'s Sustainable Energy and Climate Change Initiative (SECCI)[25] share an even broader goal of addressing environmental and sustainability challenges, sometimes with a development co-benefit as in the case of the Global Village Energy Partnership (GVEP), which aims to reduce poverty through energy access.[26]

Despite these broad objectives, there are no standalone PPCFIs that aim to scale up investments in adaptation, and of those PPCFIs that do focus on both adaptation and mitigation few have actually financed any adaptation projects. This focus on mitigation *may* be a result of a perception by private sector investors that adaptation investments are unattractive because there is often no revenue stream associated with these projects. A concerted and coordinated effort to close the adaptation finance gap could have an impact in scaling investments with significant adaptation benefits.[27]

All of the examined PPCFIs focus on either renewable energy or energy efficiency with 25 out of the 27 providing finance to both sectors (Figure 2). Examples include broadly focused PPCFIs like the Sustainable Energy Initiative (SEI), the Energy Sustainability and Security of Supply Facility (ESF) and the Norwegian Government's Energy+ Partnership that pursue broad goals of enhancing energy security, promoting sustainable energy and access to "modern" energy, and supporting climate-friendly investments. Other PPCFIs like the Renewable Energy and Energy Efficiency

Box 2 | **Key Takeaways**

- The vast majority of PPCFIs surveyed address climate change mitigation, and focus specifically on renewable energy or energy efficiency.
- Four donors—Germany, Japan, the United Kingdom, and the United States—have committed most of the PPCFIs' aggregate resources, with a large share committed to the multilateral Climate Investment Funds.
- Most PPCFIs are relatively new, having launched in the past two to five years, making success in mobilizing private investment hard to evaluate.
- Initial results show that attracting private investment at the fund level has been challenging: despite the aim of 11 of the funds to attract private sector capital, only 2 have received sizeable commercial investments.

Source: WRI.

Table 2 | **Thematic Focus of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/2013**

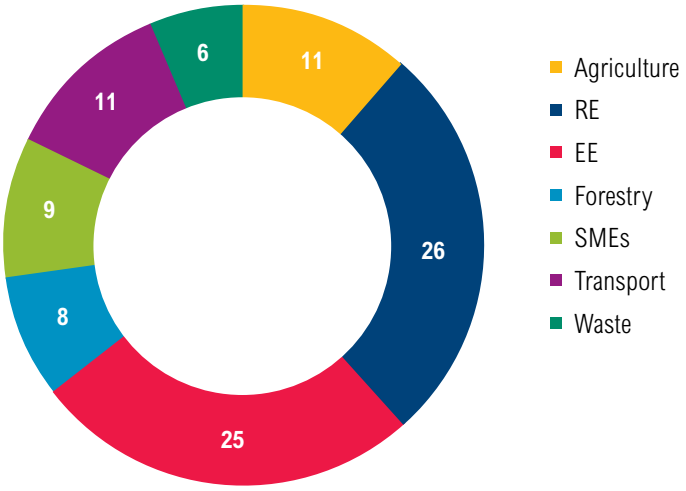
MITIGATION ONLY (11)	MITIGATION AND ADAPTATION (16)	ADAPTATION ONLY (0)
ACMP, EEGM, CEFPF, EEFF, ESF, GCPF, GEEREF, GVEP, ENERGY +, SCAF, SEFA	AVCI, C2F, CCF, ADB-CCF, CIF, CP3-Asia, CTI-PFAN, ICCF, ICF, ICI, PECF, REEP, RRIF, SECCI, SEI, IKLU	None

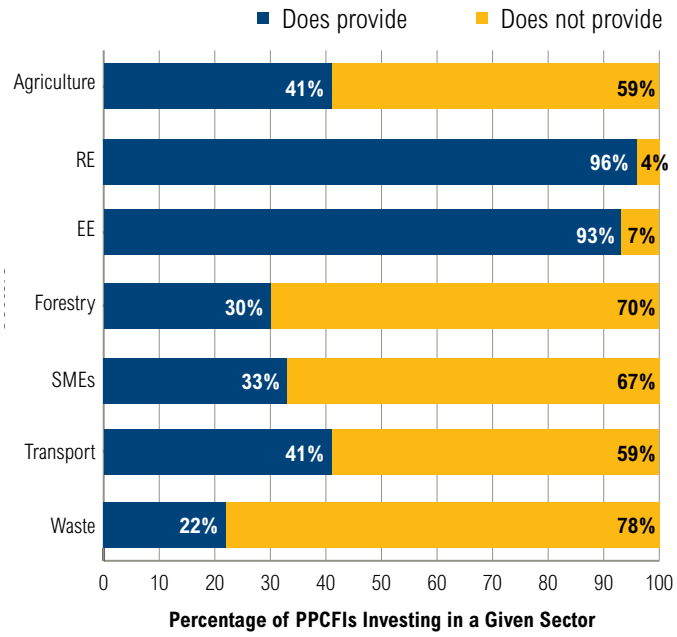
Source: WRI, using publicly available data and supporting institutions' websites.

Figure 2 | **Sectoral Focus of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/2013**

INVESTMENT SECTORS						
AGRICULTURE	RENEWABLE ENERGY	ENERGY EFFICIENCY	FORESTRY	SMES	TRANSPORT	WASTE
AVCI, C2F, CCF, ADB-CCF, CIF, CTI-PFAN, ICF, ICI, RRIF, SEI, IKLU	ACMP, AVCI, C2F, CCF, ADB-CCF, CEFPF, CIF, CP3- Asia, CTI-PFAN, EEFF, ESF, GCPF, GEEREF, GVEP, ICCF, ENERGY+, ICF, ICI, PECF, REEEP, RRIF, SCAF, SECCI, SEFA, SEI, IKLU	ACMP, AVCI, EEGM, C2F, CCF, ADB-CCF, CEFPF, CIF, CP3- Asia, CTI-PFAN, EEFF, ESF, GCPF, GEEREF, ICCF, ENERGY+, ICF, ICI, REEEP, RRIF, SCAF, SECCI, SEFA, SEI, IKLU	C2F, CCF, ADB-CCF, CIF, CTI-PFAN, ICF, ICI, IKLU	ACMP, AVCI, CCF, CIF, CTI-PFAN, GEEREF, GVEP, SCAF, SEFA	ACMP, AVCI, ADB-CCF, CEFPF, CIF, CP3-Asia, CTI-PFAN, ESF, SECCI, SEI, IKLU	AVCI, CEFPF, CIF, CP3-Asia, CTI-PFAN, RRIF

Number of Funds by Sector





Source: WRI, using publicly available data and supporting institutions' websites.

Partnership (REEEP) target more specific sector outcomes or technologies. Beyond renewable energy and energy efficiency, other less prevalent sector foci included agriculture, small and medium enterprises (SMEs), transport, forestry, and waste.

Geographic Scope

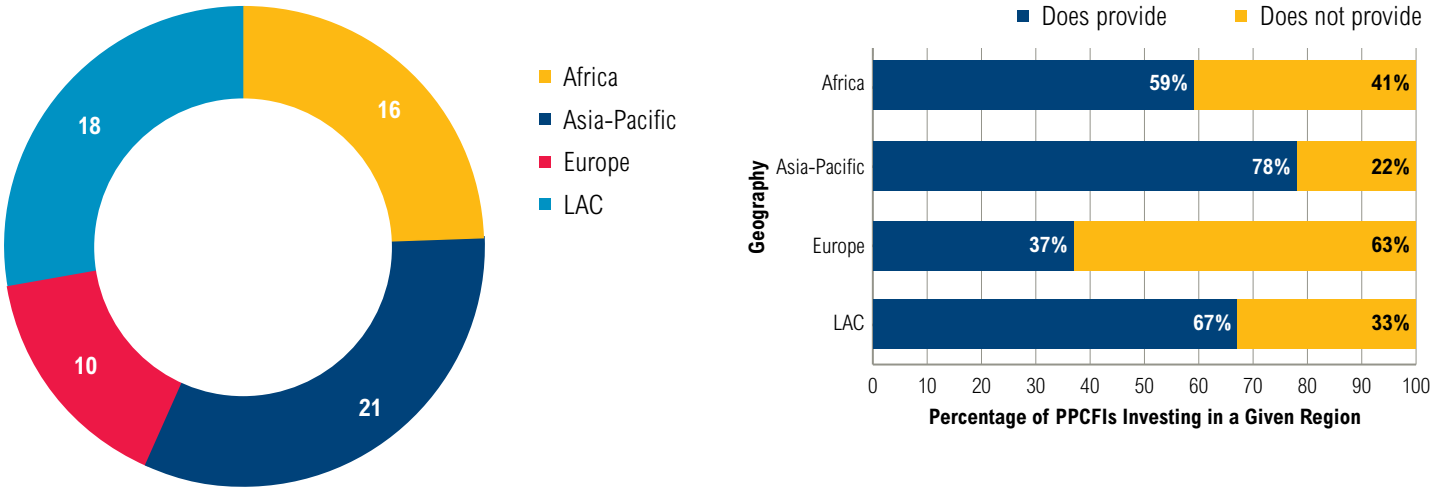
The geographic focus of a PPCFI is primarily determined by the type of actors supporting or contributing to it (Figure 3). With the exception of the IDB-supported Brazil Energy Efficiency Guarantee Mechanism (EEGM), none of the PPCFIs surveyed focus on a single country. Nine of the 27 PPCFIs are global and have no specific geographic focus beyond developing countries. Of the remaining 18 PPCFIs, 12 have at least a partial focus on regions in Asia, and seven have a partial focus on Africa. The Pacific Environment Community Fund (PECF) and the GCPF[28] are the only two PPCFIs other than the EEGM that target sub-regions or specific countries.

In practice, PPCFI investments may be concentrated in specific regions and countries; for example, many PPCFIs' mitigation investments tend to be in emerging or more

Figure 3 | **Geographic Scope of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/2013**

AFRICA	ASIA-PACIFIC	EUROPE	LATIN AMERICA & THE CARIBBEAN
CCF, CIF, CTI-PFAN, ESF, GCPF, GEEREF, GVEP, ICCF, ENERGY+, ICF, ICI, REEEP, RRIF, SCAF, SEFA, IKLU	ACMP, AVCI, CCF, ADB-CCF, CEFPF, CIF, CP3-Asia, CTI-PFAN, ESF, GCPF, GEEREF, ICCF, ENERGY+, ICF, ICI, PECF, REEEP, RRIF, SCAF, SEI, IKLU	CCF, CIF, ESF, GCPF, ENERGY+, ICF, ICI, REEEP, SEI, IKLU	EEGM, C2F, CCF, CIF, CTI-PFAN, EEFF, ESF, GCPF, GEEREF, GVEP, ICCF, ENERGY+, ICF, ICI, REEEP, RRIF, SECCI, IKLU

Number of Funds by Geography



Source: WRI, using publicly available data and supporting institutions' websites.

developed economies, which typically have a more readily available pipeline of projects and demand for finance in absolute terms. A supporting institution's geographic scope also limits the funds they provide to their home region. For example, all ADB-supported PPCFIs lend or provide technical assistance to Asian projects or entities. PPCFIs operating within a similar geographic scope may benefit from coordination to determine their unique roles in filling financing gaps and mobilizing private investment.

Supporting Institutions and Contributors

International development banks and financial institutions manage and implement the objectives of most of the examined PPCFIs. The role of these institutions in supporting PPCFIs is critical since many PPCFIs must rely on the skills, networks, and capacities of these institutions to find, evaluate, and fund projects. Key data points on supporting institutions include:

- The multilateral development banks and financial institutions including the African Development Bank (AfDB), Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IDB), and the International Finance Corporation (IFC) more frequently support PPCFIs relative to the bilateral development finance institutions.
- Developed country governments have bilaterally supported PPCFIs, often through their country's development assistance agencies. For example, the United Kingdom's Department for International Development has supported the Climate Public Private Partnership Fund (CP3-Asia) and the Climate Catalyst Fund (CCF), while the German Ministry of Environment has supported the GCPF.

- The UN agencies have also supported technical assistance and support-oriented PPCFIs, including SCAF, by the United Nations Environment Programme (UNEP).

No developing country institutions have been involved in promoting any of the examined PPCFIs except the Pacific Environment Community Fund (PECF), which is supported by the Pacific Island Leaders Forum but funded by the Government of Japan. These results may be attributed to WRI's focus on donor government-supported PPCFIs.[29]

A few key donor countries provide most of the investable public funds. Germany, Japan, the United Kingdom, and the United States have committed most of the resources, with a large share committed to the Climate Investment Funds (CIFs). In theory, the small number of donors providing a majority of funding should make it easier to ensure that each PPCFI fills a unique set of financing needs. Germany has contributed to a diverse set of PPCFIs including the CIFs, the GCPF, the Global Energy Efficiency and Renewable Energy Fund (GEEREF), and others, as well as providing technical assistance and grants from its International Climate Fund (ICI) to the Global Village Energy Partnership (GVEP), the Renewable Energy and Energy Efficiency Partnership (REEEP) and the Sustainable Energy and Climate Change Initiative (SECCI) Australia, Canada, Denmark, France, the Netherlands, Norway, Spain, Sweden and other bilateral donors have also provided significant climate financing to developing countries through many of the examined PPCFIs.

Many of the PPCFIs are relatively new and have yet to disburse finance. The majority of examined PPCFIs were launched in the past two to five years. The pace of development is a result of political pressures by the owners of the institutions, mostly donor governments, to rapidly scale up climate-related investments and meet their commitments despite shrinking budgets. Given their novelty, it is premature to evaluate their performance or effectiveness, but the multitude of recently launched PPCFIs underscores the need for coordination on overlapping or redundant activities as discussed in Sections IV and V.

PPCFIs mobilize co-investment either at the fund, subfund, or project level. Investments may be put directly into a PPCFI (at the "fund level"), into other subfunds supported by another initiative, or directly into projects ultimately financed by PPCFIs. GCPF, GEEREF, and CP3-Asia are designed to receive private sector co-investments in their funds, while AVCI and the RRIF aim to mobilize investment in the subfunds that they support. Donor trust funds—that is, funds managed by development banks on behalf of donors like the ADB's Clean Energy Financing Partnership Facility (CEFPF) and Sustainable Energy for Africa Fund (SEFA)—seek additional donor contributions to execute their technical assistance activities. Nearly all PPCFIs expect their funding to be met with additional investment resources at the project level.

Despite the aim of 11 of the PPCFIs to attract private sector capital as a funding source, only two have received sizeable private sector investment. The CCF and the GCPF have received sizeable private sector investment at the fund level—the CCF from the State Oil Fund of Azerbaijan (a sovereign wealth fund) and an unnamed German pension fund, and the GCPF from Deutsche Bank Group (unknown amount) and $30 million from Ärzteversorgung Westfalen-Lippe (ÄVWL), one of the largest branch-specific German pension funds. The GVEP and the REEP have also received small private contributions, from Barclays (US$0.15 million to help establish a loan guarantee fund) and the European Insulation Manufacturers Association (US$0.01 million), respectively.[30] The limited scale of private sector resources comingled with public resources in investment vehicles—even those with risk-sharing structures—may be because of a lack of awareness or comfort evaluating these investments, an inappropriate scale (especially for large institutional investors), inadequate returns vis-à-vis the risk profile of proposed investments, cumbersome processes, or mismatched priorities.

III. PPCFI MODELS AND WORKING METHODS

To achieve their objectives and prioritize their activities, the examined PPCFIs employ various working methods including disbursement approaches, decision-making processes, and financial instruments (see Box 3). Figure 4 outlines some of the variations in their working methods. **These working methods are not mutually exclusive, and in fact, many of these PPCFIs optimize their effectiveness by combining various working methods.** For example, some PPCFIs provide technical assistance alongside direct investments in private sector projects to fill both capacity and finance gaps.

Disbursement approaches are used to delineate decision-making structures and instrument options, even if all

Box 3 | **Key Takeaways**

- A *direct investment approach* provides the PPCFI and, in some cases the implementing institution, with greater control over project selection and approval processes. This approach helps ensure that the fund stays true to its objectives, but could result in longer processing times that disincentivize private sector investment.
- An *indirect investment approach* provides the PPCFI with less control over project-level decisions since approval processes are delegated to the intermediary institution, but it also allows the fund to take advantage of the skills and resources of intermediary institutions. This approach can streamline approval processes, but only as long as the intermediary institutions' processes are efficient and in line with PPCFI objectives.
- PPCFIs can optimize their effectiveness by employing multiple disbursement approaches, for example by providing technical assistance alongside direct investment in projects.

Source: WRI.

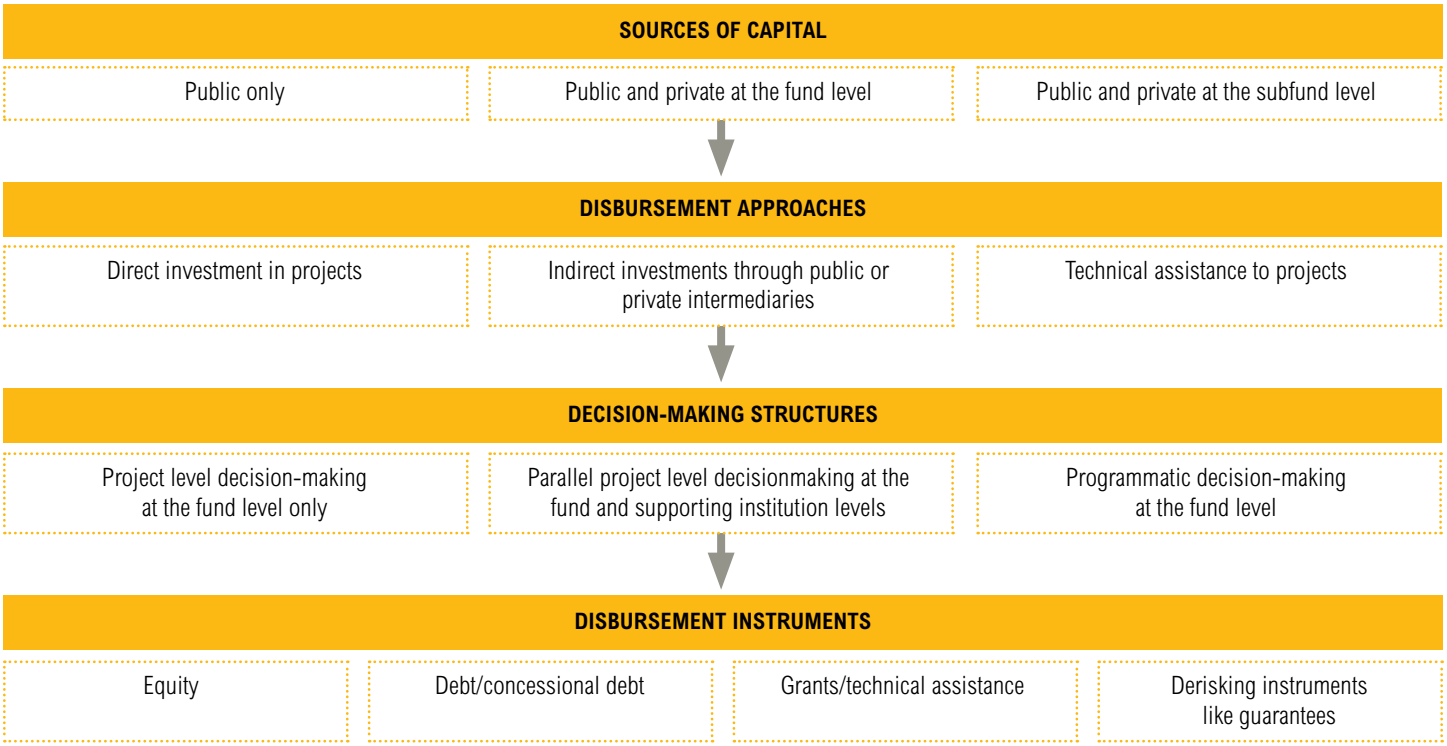
the PPCFIs' supporting institutions do not necessarily determine their working methods in such a manner. In practice, PPCFIs may first define their broad operational goals to establish a governance structure or body, and then later develop more detailed operational decisions—like disbursement approaches. PPCFIs may also alter their disbursement approaches over time, depending on the demand for investment and technical assistance, or on restrictions set forth by their own funding base.

Disbursement Approaches and Decision-making Processes

The disbursement approaches of the examined PPCFIs fall into three broad categories:[31]

1. *Direct investment* (loans, equity, derisking instruments) into public or private sector projects;
2. *Indirect investment* into public or private sector projects through public or private sector subfunds or intermediary financial institutions like development banks or commercial banks; and
3. *Technical assistance* to public or private sector actors.

Figure 4 | **PPCFI Model Options: Working Methods**

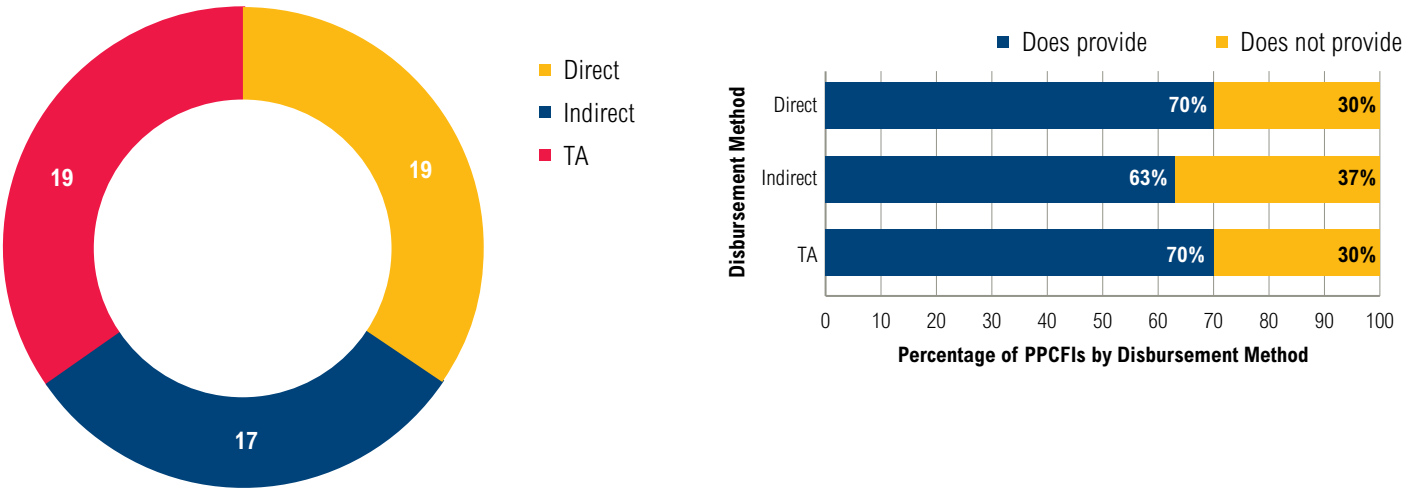


Source: WRI.

Figure 5 | **Disbursement Methods of 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/2013**

DIRECT	INDIRECT	TECHNICAL ASSISTANCE
ACMP, EEGM, C2F, CCF, CEFPF, CIF, CP3-Asia, EEFF, ESF, GCPF, GVEP, ENERGY+, PECF, REEEP, SCAF, SECCI, SEFA, SEI, IKLU	AVCI, CIF, CP3-Asia, EEFF, ESF, GCPF, GEEREF, ICCF, ENERGY+, ICF, ICI, REEEP, RRIF, SCAF, SECCI, SEI, IKLU	ACMP, ADB-CCF, CEFPF, CIF, CP3-Asia, CTI-PFAN, EEFF, GCPF, GEEREF, GVEP, ENERGY+, ICF, ICI, PECF, REEEP, SCAF, SECCI, SEFA, SEI

Number of Funds by Disbursement Method



Source: WRI, using publicly available data and supporting institutions' websites.

Nine of the 27 examined PPCFIs employ all 3 types of disbursement approaches, while 12 of the PPCFIs use 2 of the 3 methods. Three of the examined PPCFIs (EEGM, C2F, CCF) are designed exclusively to make direct investments and one (CTIPFAN) provides solely technical assistance. See Figure 5 for an aggregate summary.

The disbursement approaches of the PPCFIs typically relate to their size, the nature of private sector engagement sought, the source and type of resources that they receive, and the type of institution managing their activities. For example, PPCFIs exclusively engaging in technical assistance tend to be smaller than PPCFIs making direct or indirect investments. PPCFIs that are intended to mobilize private sector investment at subfund levels, or target specific investors, have specific structures to accommodate these priorities. For example, a key goal of the RRIF is to mobilize private equity investments in renewable resource sectors in Africa. To do so, OPIC, as the supporting institution, has targeted subfunds with specific focal areas and structures that would attract different private equity co-investors.

The source of the PPCFI's capital also has a bearing on the disbursement approaches. PPCFIs with both public and private sector capital tend to invest directly in projects rather than through intermediaries, presumably because the private sector co-investors want to retain some level of control over the project origination and/or approval process.

Direct Investment

Eighteen of the examined PPCFIs are structured to directly invest in private sector projects. However, only a few of them (such as the ICCF) rely predominantly on

Figure 6 | **Direct Investment Approach Models**

Source: WRI.

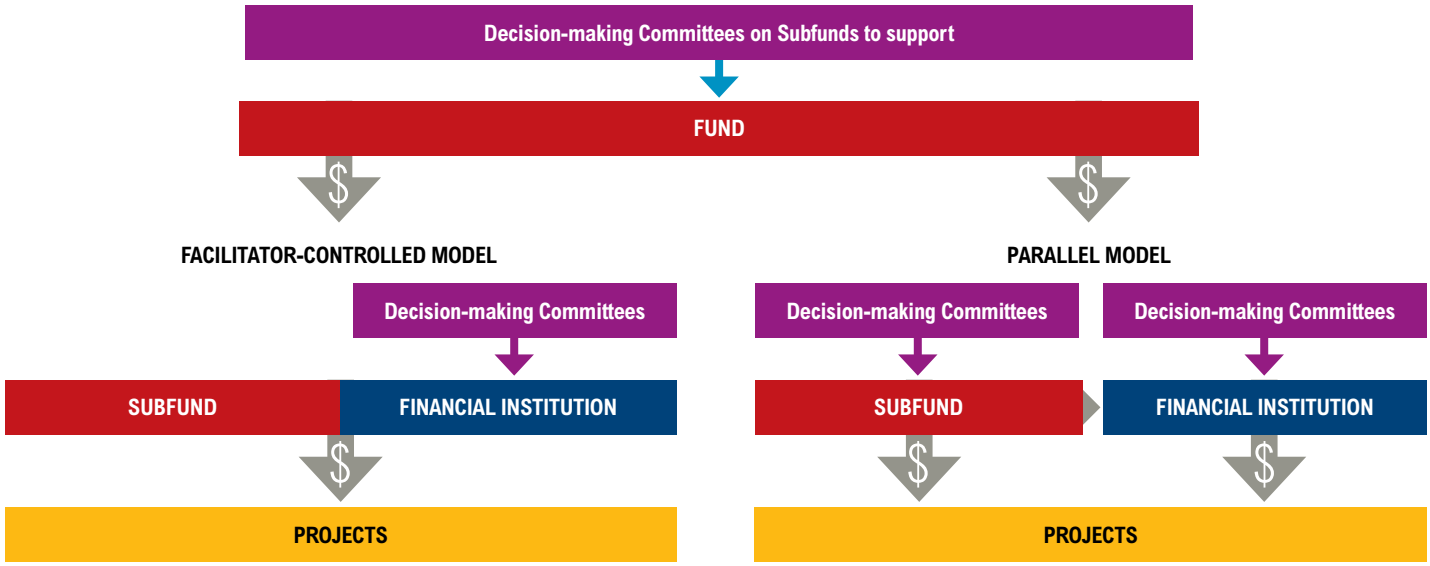
this approach. Most PPCFIs use both direct and indirect approaches to make investments. All of the PPCFIs directly investing in projects rely on the institutional capacities of one or more existing international financial institutions (IFIs) to make the investments, and by extension, rely on the decision-making process and capabilities of these IFIs.

The decision-making structures of direct-investment PPCFIs typically fall under two categories (see Figure 6):

1. **Facilitator-Controlled Model: The investment decision-making process is closely integrated with that of the financial institution facilitating the investment.** In this model, the PPCFI is most likely to be driven by a *single* institution through a commitment to make investments that help address climate change. AfDB's SEAF, EBRD's SEI, EIB's ESF (for investments over €25 million), and IDB's SECCI follow this approach.[32] To help achieve its goals, the EBRD has reorganized its institutional structure to create an Energy Efficiency and Climate Change department in 2006, and IDB created a unit under the Infrastructure and Environment Sector in 2009. In some cases, the supporting institution and one or more interested donors have set up a trust fund hosted by the supporting institution, with the decision-making authority regarding which projects to fund left to the promoting financial institution. For example, the SEAF is funded by Denmark, but the authority to make investment decisions is left to the AfDB. This decision-making structure allows donor governments to take advantage of the experience, skills, and capacity of the implementing institution.
2. **Parallel Model: A decision-making structure exists in parallel to the structure in the promoting financial institution.** In this model, a separate trust fund or facility is created, governed by a committee that makes investment decisions. This model suggests that this structure is necessary when multiple institutions are involved. The membership of such a committee may be determined through negotiations between the contributor and recipient countries, such as in the CIFs. The committee may comprise representatives of the shareholders (as is the case with the ICCF and the GCPF). The funds typically flow through partnering financial institutions, which are typically required to follow an additional decision-making process required by their respective institutions. An exception is the GCPF, which is an investment company under Luxembourg law and can thus directly invest in projects.[33]

Generally, the direct investment approach provides the PPCFI (and in some cases, the PPCFI's implementing institution) with the greatest control over project selection and approval processes. This arrangement helps ensure that the PPCFI stays true to its objectives, but could result in longer processing times that disincentivize private sector investment, especially if the PPCFI does not have adequate capacity or expertise to evaluate proposals in a timely fashion. This approach is well-suited to providing finance to early-stage sectors in which projects are unable to access finance from commercial sources and/or require a combination of technical assistance and investment.

Figure 7 | **Indirect Investment Approach Models**



Source: WRI.

Indirect Investment

Eight of the examined PPCFIs do not directly invest in projects or even make decisions on specific project investments. In these instances (as with the AVCI, the ICF, and the IKLU) the responsibility for decisions on project investments is delegated to intermediary funds or financial institutions (see Figure 7). These intermediary funds and financial institutions are beneficiaries of the PPCFI, but not promoters, and are typically required to comply with the policies and standards of the PPCFI or a partner public institution.

INVESTMENTS THROUGH INTERMEDIARY FUNDS (PRIVATE EQUITY OR VENTURE CAPITAL)

PPCFIs that channel resources to projects through a private equity (PE) fund or venture capital (VC) fund typically follow two models:

1. **Single/multiple government(s) or public financial institution(s)** directly invest in intermediary PE/VC funds as a partner with limited liability (limited partner) such as ADB's investments in three VC funds under its AVCI. Alternatively, the institution may provide a long-term loan to the fund manager or the partner with unlimited liability (general partner). For example, OPIC has provided long-term loans to five PE funds supported under the RRIF fund.
2. **Single/multiple government(s) or public financial institution(s)** invest in a "parent" PE/VC fund as limited partners, which then goes on to invest in smaller PE/VC funds as a limited partner. This approach is sometimes referred to as the "fund of funds" approach. The GEEREF is an example in which multiple donors and public financial institutions have *contributed* resources into the "parent" fund. The CP3-Asia fund is an example of these institutions *investing* in the "parent" fund as partners. Either a public or private sector financial institution may serve as the fund manager or general partner. In the case of CCF and GEEREF, public institutions such as the IFC and EIB serve as their respective fund managers, while in the case of CP3-Asia, the fund manager is the private sector investment bank, Credit Suisse.

PE/VC funds typically follow a similar institutional structure. The fund manager and a professional investment committee are responsible for making investment decisions, while an advisory board provides expertise on investment policy and eligibility. Advisory board equity investors, with voting rights proportional to the size of their investments, may step in to make investment decisions when the majority of the investment committee members are subject to a material conflict. This approach was taken in the case of the VC funds supported under

ADB's AVCI. If an investor is providing a loan, such as OPIC under its RRIF fund, it may participate in the advisory board as a non-voting member.[34]

Public institutions investing in PE/VC funds expect the fund's environmental and social policies and standards to be consistent with their own standards. The ADB and OPIC both have this requirement. Alternatively, the public institutions may require those standards to be in line with those put forth by managing public institutions, such as EIB in the case of GEEREF. Compliance with these standards and policies is typically overseen at both the fund and investment level by the investing or managing public institutions.

INVESTMENTS THROUGH INTERMEDIARY FINANCIAL INSTITUTIONS

Some of the examined PPCFIs, such as CIFs, EBRD Sustainable Energy Initiative (SEI), EIB's Energy Sustainability and Security of Supply Facility (ESF) and the GCPF, channel their investments through intermediary financial institutions. Since they also invest directly in projects, their governance structures remain the same as PPCFIs following a direct disbursement model. However, they do not evaluate the specific project investments made by the intermediary financial institutions, instead they determine which financial institutions to support, the overall amount of resources to provide the intermediary financial institution, and the conditions under which the funding should be provided.

None of these PPCFIs appear to have any limitations on whether they invest through intermediary public or private sector financial institutions. However, the multilateral development banks through which some of the PPCFIs channel their investments may impose certain restrictions such as only investing through public, government-owned intermediary financial institutions. For example, IDB provided CIF's resources for energy efficiency programs in Mexico through the *state-owned* development financing institution Nacional Financiera.[35] Investments to privately owned intermediary financial institutions must be channeled through the private sector arms of the multilateral development banks, such as the IFC. The GCPF (Box 4) does not appear to face any such limitations and can invest through any intermediary financial institution that meets its eligibility criteria.

INDIRECT INVESTMENT APPROACH FINDINGS

The indirect investment approach generally provides the PPCFI with less control over project-level decisions because approval processes are delegated to the intermediary institution, but it does allow the PPCFI to take advantage of the skills and resources of intermediary institutions. This approach can streamline approval processes, but only if the intermediary institutions' processes are in line with PPCFI objectives and are themselves efficient. For example, without clear environmental and social criteria, delegating project-level decisions to a private sector subfund manager may inadvertently result in picking environmentally unfriendly projects, as the private sector managers may not fully understand all the environmental implications of a specific project.

An indirect approach that uses private sector intermediaries tends to be well-suited for providing finance to later-stage markets and has the added benefit of helping these private sector institutions become more comfortable with originating and evaluating climate change investments. There is a risk, however, of unnecessary subsidies flowing to private sector intermediaries if this kind of support is not monitored and phased out over time.

When PPCFIs are routed through public intermediaries like national and regional development banks, this approach has the added benefit of leveraging local and regional market expertise and making it easier for recipients to access PPCFIs, since recipients may be more familiar with a local institution than an international one. Conversely, PPCFIs could potentially replace finance that otherwise would have been provided by public intermediaries, especially if they are willing to provide significant concessionality.

Box 4 | PPCFI Case Study: The Global Climate Partnership Fund

The Global Climate Partnership Fund (GCPF) is a publicly and privately financed investment fund supported by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, KfW Entwicklungsbank, the International Finance Corporation, the Danish Ministry of Foreign Affairs, Ärzteversorgung Westfalen-Lippe (ÄVWL), one of the largest branch-specific German pension funds, and the Deutsche Bank Group.[a] Since its inception in 2009 the GCPF has disbursed US$152.8 million[b] (US$102.8 million of which was disbursed in 2012).[c] It currently focuses on Brazil, Chile, China, India, Indonesia, Mexico, Morocco, South Africa, the Philippines, Tunisia, Turkey, Ukraine, and Vietnam.[d] GCPF is currently managed by a private sector financial institution—Deutsche Bank Group—which is also a co-investor in the fund.

GCPF Governance Structure

The GCPF Board of Directors oversees all fund activities and is responsible for strategic decision-making, including the appointment of an Investment Committee that approves the Investment Manager's (Deutsche Bank) operational decisions and ensures that the fund's Technical Assistance Facility is coordinated to support fund objectives and investment decisions.

As illustrated in Figure B4.1, the GCPF provides *direct financing* to project developers, energy service companies (ESCOs), small- scale renewable energy and energy efficiency service and supply companies and *indirect financing* through local commercial banks, leasing companies, and other selected financial institutions for renewable energy and energy efficiency projects.[e]

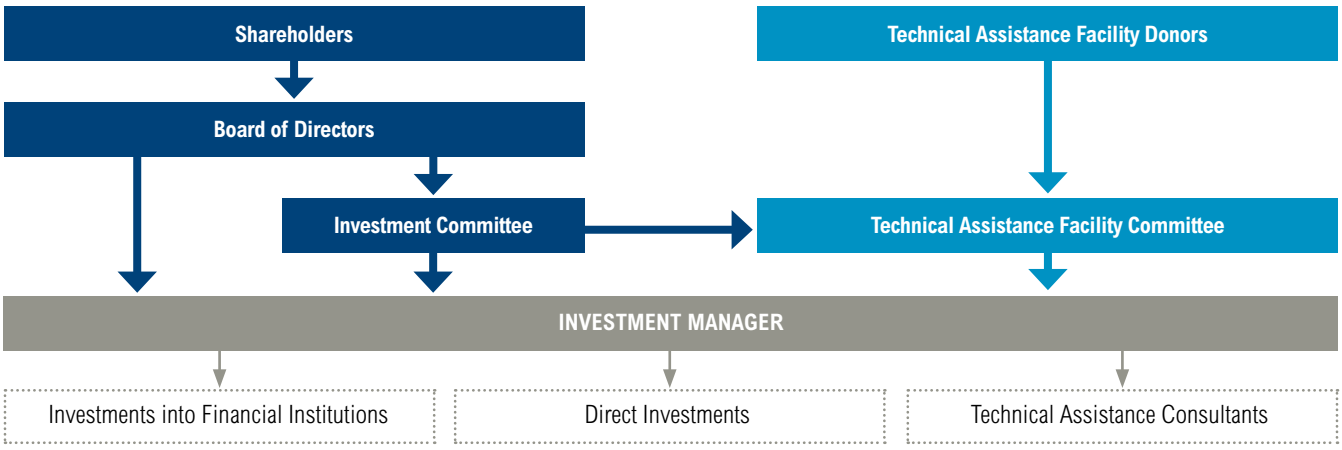
In 2012, the fund's parallel Technical Assistance Facility, operated by select energy consultants and local technical experts, provided US$200,000 across three technical assistance projects to complement, prepare, and support the fund's investments.[f,g]

The GCPF is a structured fund, which means that investors in the fund can take different risk-return positions depending on their investment interests. Class C Shares represent the fund's equity, Class B Shares rank senior to the equity portion, and Class A Shares rank senior to the other two share classes, but are junior to all other creditors of the fund (see Figure B4.2).

GCPF Disbursement Approach

The GCPF actively sources projects for direct investing, and also provides support to financial intermediaries for on-lending. To date, 98 percent of the fund's investments have been provided *indirectly* through partner financial institutions, and only 2 percent *directly*.[i] The fund has used eight partner/intermediary institutions: Cronimet Mining AG in South Africa, XacBank in Mongolia, VietinBank in Vietnam, Ukreximbank in the Ukraine, Şekerbank in Turkey, Banco ProCredit and Banco del Pichincha in Ecuador, and Banco Pine in São Paulo. Cronimet Mining AG is a German provider of energy solutions for mining companies and was the recipient of US$2.83 million in direct financing from the GCPF. The remaining partners are financial intermediaries, disbursing loans with an average size of US$51,000 in 2012.[j] The GCPF has yet to take on any direct local currency risk as its currently portfolio is comprised entirely of U.S. dollar investments.

Figure B4.1 | GCPF Governance Structure



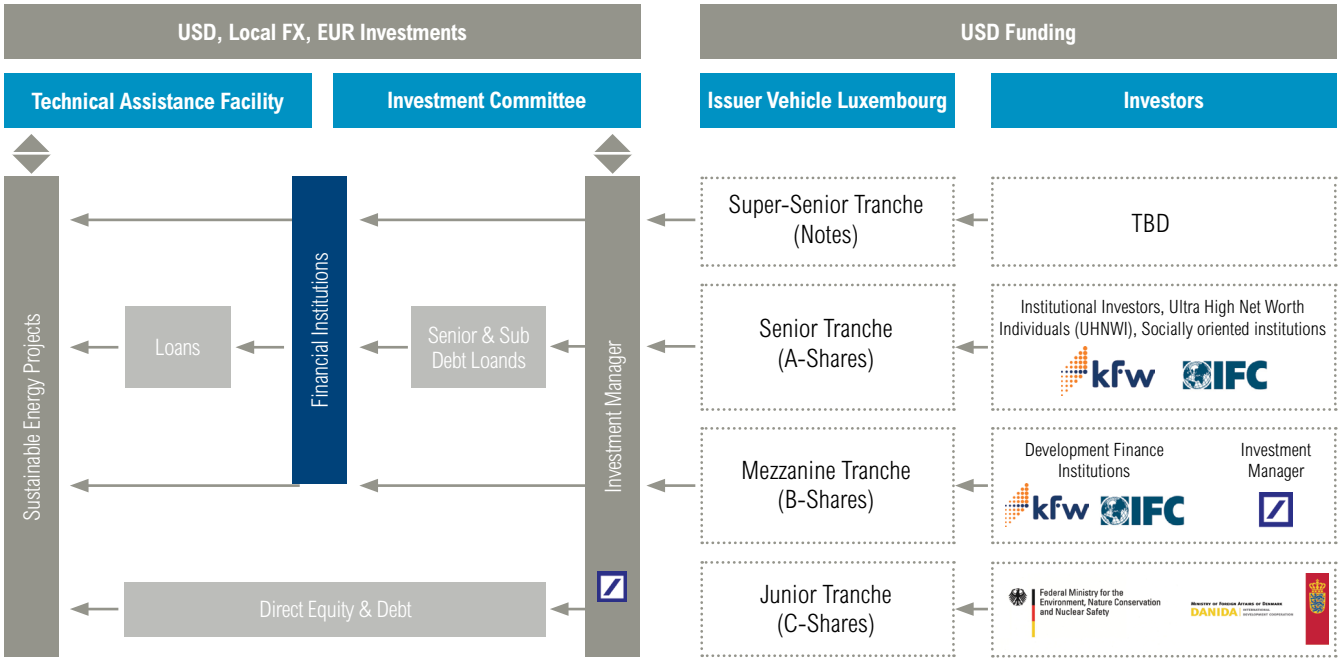
Source: Global Climate Partnership Facility, "Organizational Set Up," http://gcpf.lu/organizational-setup.html.

Incentivizing the Private Sector
To better leverage private sector capital in the fund, the GCPF:

- *Attracts fund level co-investment:* The GCPF's tiered structure, and specifically the contributions of donor governments to C Shares, de-risks returns for private sector investors, and has been critical to the GCPF's role in attracting private sector co-investment. For example, according to GCPF, it was critical to securing US$30 million in investment from ÄVWL.
- *Leverages project-level co-investment:* GCPF's local partner institutions typically ask project borrowers to provide an equity contribution to the project to ensure that their interests are aligned and there is no risk of moral hazard. Additionally, in the case of on-lending, banks may also finance projects only partially with the support of GCPF. This method allows private sector investors to benefit from a more diversified portfolio,[k] a hedge against overinvesting in a single potentially underperforming project.

Source: WRI, using the Global Climate Partnership Fund website and Global Climate Partnership Fund Annual Report 2012, Mitigating Climate Change Together.

Figure B4.2 | **GCPF Investments and Funding**



Source: Global Climate Partnership Facility, "Shareholder Structure" http://gcpf.lu/shareholder-structure.html.

a. Global Climate Partnership Facility (GCPF), "Annual Report 2012: Mitigating Climate Change Together," p. 34, available at http://gcpf.lu/tl_files/downloads/annual_reports/GCPF_AR-2012_web.pdf.
b. Ibid, p. 5.
c. Ibid, p. 12.
d. GCPF, "Eligible Investments," http://gcpf.lu/eligible-investments.html .
e. Ibid.
f. GCPF, "Technical Assistance," http://gcpf.lu/concept.html
g. GCPF, "Annual Report: 2012," p. 42.
h. Ibid, p. 31.
i. Ibid, p. 32.
j. Ibid, pp. 30, 32.
k. Ibid, p. 36.

Technical Assistance

Nineteen examined PPCFIs provide technical assistance, often as supplementary support alongside their investments. One of the PPCFIs, CTI-PFAN, provides only technical assistance (TA) support.[36] Technical assistance can include advisory services, support for project preparation, and training, among other activities. Eight PPCFIs (AVCI, EEGM, C2F, CCF, ESF, ICCF, RRIF, and IKLU) do not provide technical assistance.

TA facilities vary in their structure, operation, and decision-making processes. PPCFIs that provide only technical assistance have independent structures for considering proposals, approving projects, and monitoring their implementation. The TA facilities that are combined with investment funds appear to follow two broad approaches. In one, the TA facility is distinct from the investment mechanism, with its own discrete funding pot and decision-making structures (as with CP3-Asia, GCPF, and GEEREF). In the other approach, decisions on technical support are integrated with the investment decision-making structure and are often included within the same funding envelope as the investments to overcome technical, policy, and financial barriers. The bilateral PPCFIs, the CIFs, and EBRD's SEI follow this approach.

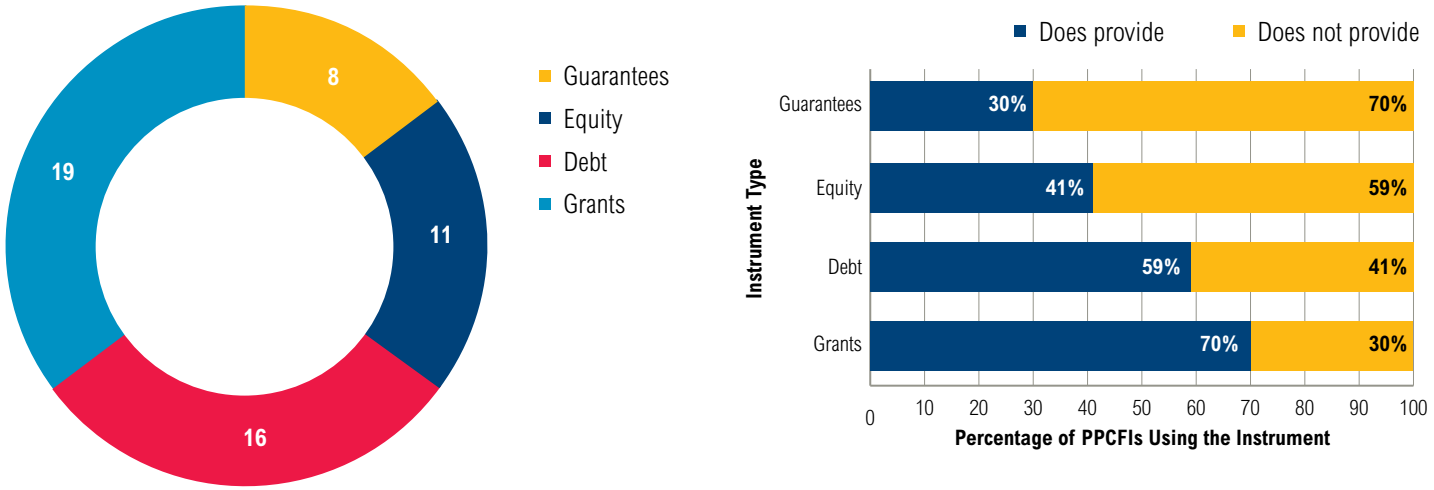
FINANCIAL INSTRUMENTS

With the exception of eight PPCFIs—the ACMP, CIFs, CP3-Asia, EEFF, GCPF, GVEP, ICF, SCAF, and SEI—only two categories of financial instruments are used (Figure 8). Generally, the size and type of the PPCFI has a bearing on its use of financial instruments. For example, the smaller, TA-only PPCFIs tend to use only grant financial instruments. The direct and indirect investment PPCFIs typically provide equity or debt investments, and no grant instruments. The PPCFIs providing equity tend to be smaller, while those providing loans tend to be larger (in the range of several hundred

Figure 8 | **Financial Instruments Used by 27 Public and Public-Private Climate Funds and Initiatives Reviewed, 2012/2013**

GUARANTEES	EQUITY	DEBT	GRANTS
ACMP, C2F, CIF, CP3-Asia, EEFF, EEGM, GVEP, RRIF	ACMP, AVCI, CCF, CIF, CP3-Asia, GCPF, GEEREF, GVEP, SCAF, SEFA, SEI	ACMP, C2F, CCF, CEFPF, CIF, CP3-Asia, EEFF, ESF, GCPF, ICCF, ICF, ICI, IKLU, RRIF, SCAF, SEI	ACMP, ADB-CCF, CEFPF, CIF, CP3-Asia, CTI-PFAN, EEFF, ENERGY+, GCPF, GEEREF, GVEP, ICF, ICI, PECF, REEEP, SCAF, SECCI, SEFA, SEI

Number of Funds by Financial Instrument Offered



Source: WRI, using publicly available data and supporting institutions' websites.

million to several billion dollars in current or aspired size), likely reflecting the trade-off between the volume and flexibility of financial inputs into a PPCFI.

Nineteen of the 27 PPCFIs are able to provide grants, usually for technical assistance and capacity building. Debt and concessional debt is the most common form of financing and is offered by 15 PPCFIs, although only 10 of them also offer grants. Equity investments are offered by 11 PPCFIs, and seven of which also offer grants. Guarantees are offered by eight PPCFIs (ACMP, EEGM, C2F, EEFF, CIFs, CP3-Asia, GVEP, RRIF), which are all coupled with other instruments except for EEGM which exclusively uses guarantees.

IV. PLATFORMS AND PARTNERSHIPS INVOLVING PPCFIS

Institutions directly involved in PPCFIs as well as third parties such as nonprofit organizations and philanthropic foundations have undertaken efforts to convene and coordinate the efforts of both public and private actors through peer groups, public-private networks and partnerships, and discussion forums (see Table 3 on page 26). These activities range from narrow coalitions of subsets of financial institutions addressing specific challenges to broad discussion forums that include other stakeholders like think tanks, industry associations, and nongovernmental organizations (NGOs) (see Box 5.) As discussed in the subsequent section, these platforms and partnerships can help alleviate some of the challenges PPCFIs face in mobilizing private investment.

Some platforms and partnerships promote policy dialogue and coordinated action by specific investor groups such as development banks, institutional investors, and insurers. Three forums target institutional investors: the P8 Group, Institutional Investors Group on Climate Change (IIGCC), and Investor Network on Climate Risk (INCR). The Prince of Wales' Cambridge Programme for Sustainability Leadership (CPSL) convened the P8 Group, a group of pension funds representing over US$3 trillion under management, with the goal of identifying ways in which their investment strategies can address climate change. The Climate Group similarly helped establish and now serves as the secretariat of the IIGCC, a group of 75 European pension funds and institutional investors with assets of about €7.5 trillion. The group seeks to encourage asset owners and managers to act on climate change and to improve reporting and management of climate-related risks. Ceres, a non-profit organization, convenes a broader group of over 100 institutional investors with assets of roughly US$10 trillion under the INCR to identify climate-related investment opportunities and risks, improve reporting and disclosure, and advance supportive policies. CPSL also brings together 40 insurers in Europe, North America, and Southern Africa under the ClimateWise fund to reduce risks to economies and societies from the impacts of climate change.

Others provide a broader platform for dialogue with a diverse set of public and private sector financial actors. Since 1992, UNEP has been leading a network of over 200 financial institutions through the UNEP Finance Initiative to identify, promote, and realize best practices on sustainability at all levels of a financial institution's operations. In 2010, the International Finance Corporation, the United Nations Foundation and the World Economic Forum, jointly convened the Critical Mass Initiative to identify potential public-private partnerships by exploring the role various financial actors and instruments can play to make climate investments viable. The World Economic Forum houses the Green Growth Action Alliance (G2A2), which comprises more than 50 companies, public and private sector financial institutions, and research organizations. It convenes strategic working groups with the goal of developing solutions to specific problems that members have identified as barriers to the green growth policy agenda. Two such forums have been convened by developed-country government agencies. The UK Department for Energy and Climate Change led

Box 5 | **Key Takeaways**

Existing platforms and partnerships involving PPCFIs can be leveraged to address challenges faced in mobilizing private investment. Current platforms and initiatives fall into three categories:

1. Promoting policy dialogue and action by specific investor groups: for example, the Institutional Investor's Group on Climate Change and the P8 Group;
2. Providing a broader platform for public-private dialogue: for example, the Global Green Growth Forum and the Green Growth Action Alliance; and
3. Promoting specific financial instruments: for example, the Climate Bonds Initiative and Low Carbon Bond Group

Source: WRI.

Table 3 | **Networks and Forums Relevant to Public and Public-Private Climate Funds and Initiatives, 2012/2013**

NETWORK OR FORUM	PURPOSE	WORKING METHODS	SUPPORTING INSTITUTIONS
Climate Bonds Initiative	An investor-focused not-for-profit, promoting large-scale investment in the low-carbon economy suitable to the needs of pension and insurance funds	■ Market facilitation: proposals for standards, incentives, and governance institutions that will support a rapid scaling-up of investment ■ Market growth: develop project models to provide risk-adjusted returns in assets such as renewable energy, energy efficiency, forestry, and other climate sectors ■ Leadership and advocacy for industry, investors, and governments	Shearman Sterling LL, Climate Foundation, Bank of America Merrill Lynch Foundation, National Australia Bank, HSBC Climate Change Centre of Excellence, Sainsbury Family Charitable Trusts
ClimateWise	A nonprofit global group of insurance industry leaders that aims to lead in risk analysis, inform public policy-making, support climate awareness among customers, incorporate climate change into investment strategies, reduce the environmental impact of business practices, report, and demonstrate accountability	Work individually and collectively to reduce long-term social and economic risks from climate change	Prince of Wales' University of Cambridge Programme for Sustainability Leadership, Insurance companies
Critical Mass Initiative/Green Growth Action Alliance	Managed by the World Economic Forum and Global Green Growth Institute, this initiative aims to pioneer a new wave of bankable and scalable transactions in low-carbon infrastructure in developing and emerging economies	■ Identify potential public/private partnerships to address climate change ■ Establish laboratories at the project, program, and sectoral levels to explore the roles various players and financial instruments can play in making climate investments viable	IFC, Institutional Investor's Group on Climate Change (IIGCC), Investor Network on Climate Risk (INCR), United Nations Foundation (UNF), World Economic Forum, Zennström Philanthropies
The Association of European Development Finance Institutions (EDFI) and the Interact Forum	EDFI's Interact Forum brings together AfD, BSTDB, KfW, and EDFI members to exchange views on development topics. EDFI is an association of 15 bilateral institutions operating in developing and reforming economies, mandated by their governments to: ■ Foster growth in sustainable businesses; ■ Help reduce poverty and improve people's lives; and ■ Contribute to achieving the Millennium Development Goals	■ Convene working meetings and forums ■ Harmonize standards across member institutions	Belgian Investment Company for Developing Countries-BIO, CDC Group, Compañía Española de Financiación del Desarrollo- COFIDES, DEG Deutsche Investitions- und Entwicklungsgesellschaft mbH, Finnish Fund for Industrial Cooperation- FINNFUND, the Dutch Development Bank- FMO, Danish Investment Fund for Developing Countries- IFU, Norwegian Investment Fund for Developing Countries- Norfund, Development Bank of Austria- OeEB, Investment and Promotions company for Economic Cooperation- Proparco, Japan Belgian Corporation for International Investment- SBI-BMI, Swiss Investment Fund for Emerging Markets- SIFEM, Italian Society for overseas Companies- SIMEST, Portuguese Development Finance Institution- SOFID, Swedfund

NETWORK OR FORUM	PURPOSE	WORKING METHODS	SUPPORTING INSTITUTIONS
Global Green Growth Forum (3GF)	Spur green growth through better public/private collaboration at a high-level platform that will frame the successful transition to a global green economy	Convene conferences including global leaders from business, finance, and public institutions to discuss best practice initiatives, supportive policies, and collaboration opportunities to accelerate green growth	Governments: Denmark, Republic of Korea, Mexico, China, Qatar, and Kenya
Institutional Investors Group on Climate Change (IIGCC)	Influence policymakers, investors, and investments to incorporate and address climate risks and opportunities	Establish positions and publish reports developed through a series of work streams based on insights and expertise of members	The Climate Group (secretariat)
International Development Finance Club (IDFC)	A group of bilateral, national, and subregional development banks committed to pooling their know-how and best practice experiences in strategic topics of mutual interest, including climate finance, infrastructure finance, social development, poverty reduction, green banking and innovation finance	■ Set agendas by joining forces and networking on issues of similar interest ■ Identify and develop joint business opportunities ■ Share know-how and best practice experiences for mutual learning	KfW Development Bank, French Development Agency-AFD, Brazilian Development Bank BNDES, Development Bank of Latin America CAF, Center for Global Development, CGD, Development Bank of Southern Africa- DBSA, Japan International Cooperation Agency- JICA
Investor Network on Climate Risk (INCR)	Network of institutional investors committed to advancing the investment opportunities and reducing the material risks posed by sustainability challenges in areas such as climate change and water scarcity	■ Change member practices ■ Foster constructive engagement between investors, companies, environmentalists, and policymakers through avenues such shareholder resolutions ■ Advocate for policy, including regulatory, changes to reflect environmental risks and opportunities	Ceres
Low Carbon Bond Group	Group of practitioners focused on delivering a variety of capital market solutions for funding the significant debt requirements of the low-carbon sector	Collaborative effort to overcome investment and regulatory barriers to attracting private capital to provide debt financing for low-carbon investment projects, with a focus on creating products for the capital markets	Paradigm Change Capital Partners, Clifford Chance, European Investment Bank, International Investors Group on Climate Change, KPMG, Moody's
Prince of Wales' Cambridge Programme for Sustainability Leadership (CPSL)'s P8 Group	Group that brings together senior leaders from some of the world's largest public pension funds to develop actions relating to global issues, particularly climate change	Convene leading global pension funds and sovereign wealth funds that represent over US$3 trillion in investment capital	Prince of Wales' University of Cambridge Programme for Sustainability Leadership

Table 3 | **Networks and Forums Relevant to Public and Public-Private Climate Funds and Initiatives 2012/2013, continued**

NETWORK OR FORUM	PURPOSE	WORKING METHODS	SUPPORTING INSTITUTIONS
UNEP Finance Initiative (UNEP-FI)	Partnership between the United Nations and financial institutions started in 1992 to encourage the incorporation of corporate sustainability considerations into their financial decision-making	■ Convene members and provide research to increase availability of more and consistent data ■ Help formulate a coordinated approach to the measurement of companies and their and supply chains footprints ■ Provide training courses for financial institution staff	UNEP and financial institution member organizations

Source: WRI, using publicly available data and supporting institutions' websites.

the convening of the Capital Markets Climate Initiative to guide policymakers in developing investment-grade policy and public finance mechanisms, and to help governments develop projects that demonstrate how public action can leverage private sector capital. Similarly, the Danish, South Korean, and Mexican governments (later joined by the governments of China, Qatar, and Kenya) created the Global Green Growth Forum to share best practices, policies and collaboration opportunities to accelerate green growth. In addition to the financial community, both forums include other businesses, international agencies, and think tanks in their forums.

More recent initiatives promote specific financial instruments, for example, green bonds, to raise additional capital for climate-related investments. Paradigm Change Capital Partners, a financial consulting firm, led the formation of the Low-Carbon Bond Group. The group includes a public investment bank, the institutional investor group IIGCC, two law firms, a tax advisor, and a credit-rating agency. The Climate Bond Initiative, launched by the Carbon Disclosure Project and the Network for Sustainable Financial Markets, aims to foster innovative fixed-income financing structures. It is also leading the creation of a standard and certification scheme for climate bonds.

V. OVERCOMING PPCFI CHALLENGES TO MOBILIZING PRIVATE INVESTMENT

As public assistance budgets tighten and the investment needs of recipient developing countries grow, donor governments will need to ensure that their limited finance is effectively and accountably mobilizing investment (see Box 6). Creating the right enabling conditions for investment,[37] tailoring, and deploying innovative finance,[38] and mobilizing new sources of finance are critical to success as discussed at length in WRI's climate finance series and other literature.[39]

On October 9, 2013, WRI and CMIA hosted practitioners representing public financial institutions, PPCFIs, and government representatives to discuss how PPCFIs can effectively attract private sector co-investment at both the fund and project level, and whether improving coordination and collaboration among PPCFIs could increase their individual and collective effectiveness. The workshop agenda focused on immediate steps forward given the dozens of PPCFIs already in existence, which have had varying success in mobilizing private sector investment, and some of which have had difficulty disbursing finance as quickly as expected.

The 2013 workshop built on the takeaways from a 2011 meeting in Bonn, jointly hosted by WRI and KfW, on public and private initiatives to scale up climate finance. This workshop was attended by representatives of various promoting institutions, research organizations, and the private sector. It focused on identifying the risks to, and developing a better understanding of, the various initiatives involved in scaling up climate finance.

Drawing from the two workshops' discussions as well as consultations with development finance institutions representing several PPCFIs and private sector project developers and fund managers attempting to access finance from PPCFIs, this section outlines current challenges and potential solutions (summarized in Figure 9) to mobilizing private sector investment through PPCFIs, and platforms and methods to execute these solutions.

Challenges and Solutions to Mobilizing Private Sector Investment

Challenges PPCFIs face in mobilizing private investment range from systemic issues like challenging investment conditions, to operational challenges in improving private sector access, to institutional challenges that may prevent effective public-public and public-private engagement. Notably, several of these challenges are interrelated and mutually reinforcing. For example, weak enabling conditions combined with limited information on the universe of PPCFIs can limit the pipeline of attractive projects applying for finance, which can then result in unhealthy competition among public actors and between public and private sector actors to finance these deals, and eventually result in inefficient uses of PPCFI funds.

Systemic Challenges: Weak Investment Conditions, Limited Deal Pipelines, and Scale

Supply of finance is not always a limiting factor for PPCFIs;[40] disbursing funds can be challenging because of the limited global pipeline of investable projects. Most PPCFIs currently provide finance directly to projects or through intermediaries, rather than providing broad-based support to create and grow markets through institutional reforms, policymaking, and capacity building. Providing this support may be a perfectly reasonable role for PPCFIs, but it is important that donor governments complement direct and indirect finance from PPCFIs with the necessary systemic support.
As both public and private sector stakeholders have pointed out,[41] it is challenging to mobilize private investment at scale without this support, even more so in the least-developed countries (LDCs). As a result, PPCFI portfolios are biased toward mature technologies, emerging markets, and established projects. While this bias may be justified given the large mitigation potential of these markets, it also increases the potential of crowding out private sector investment.

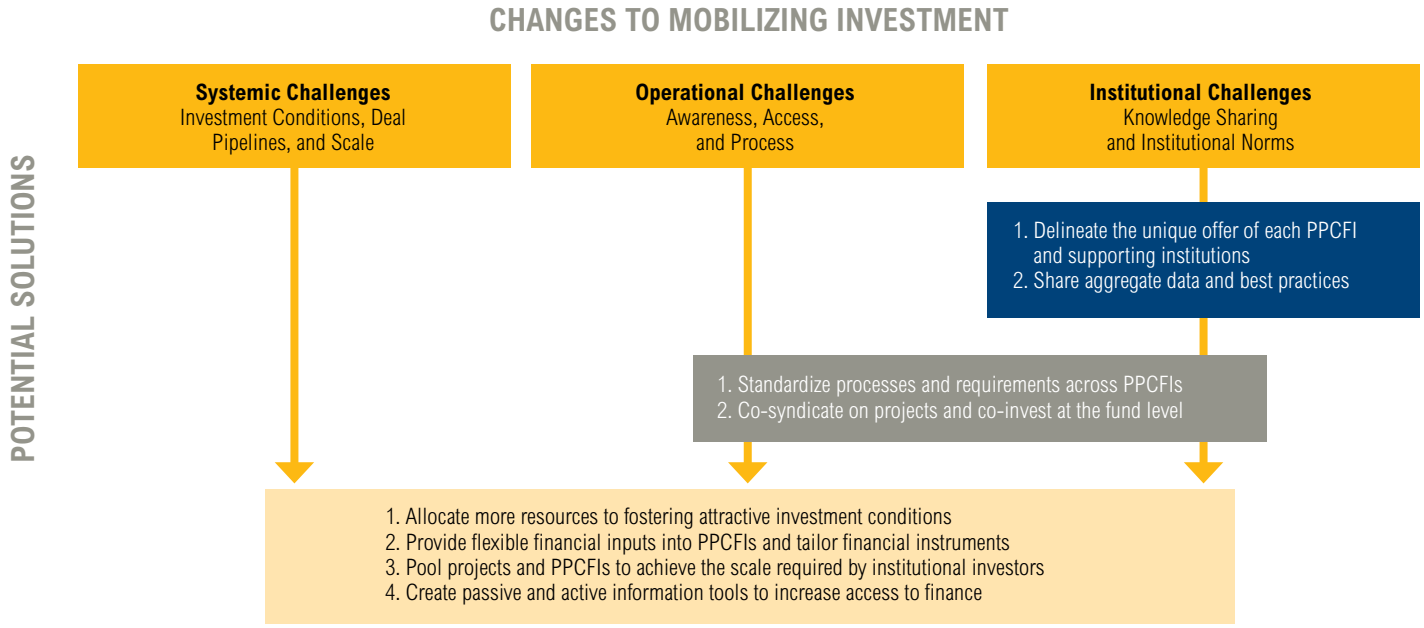
Combined with the drive to spend committed public resources and show results, this limited and biased pipeline drives unhealthy competition between public and private actors, and in some cases solely among public actors. PPCFIs compete to attract concessional resources from donors and must demonstrate results to those donors and their supporting taxpayers. While competition can promote innovation, it can also result in a duplication of efforts and delays as different PPCFIs compete for the same investment opportunities and, as a result, an oversupply of cheap public funds crowd out private sector investment. Additionally, some PPCFIs may lack the flexibility (because of limiting

Box 6 | **Key Takeaways**

- PPCFIs can increase collective and individual effectiveness in mobilizing private investment by:
  - Providing information to the private sector on the availability of funds, co-investment timelines, basic access requirements, and internal contacts to help navigate the unique requirements of each PPCFI;
  - Co-investing in funds where requirements and processes are clearly defined at the outset and redundancies among institutions are minimized;
  - Co-syndicating to minimize work for both the public and private sector; and
  - Agreeing on common procedures and negotiation terms—or at least principles—among public sector institutions, in close consultation with the private sector.
- Donor governments must explore ways to fund multi-donor PPCFIs without limiting activities to fit the least-willing participants' goals or creating redundant processes.
- Landscaping the unique role and comparative advantage of each public financing institution is an important next step in improving collective PPCFI effectiveness.

Source: WRI.

Figure 9 | **Potential Solutions to Institutional, Operational, and Systemic Challenges**



Source: WRI.

financial inputs or restrictions placed by donors) or capacity to (1) take on risks that the private sector is hesitant to absorb or (2) provide varying levels of concessionality that is tailored to market requirements.

Unhealthy competition can result in public finance—particularly concessional finance—unnecessarily subsidizing and crowding out private sector investment. PPCFIs are pursuing many of the same investment-grade projects in emerging market countries, while less-mature projects in countries with limited capacities, especially in LDCs, are left unfunded.[42]

Achieving the scale required to attract institutional investment is challenging, even for the larger PPCFIs. Attracting institutional investment in climate-friendly projects and in PPCFI funds or initiatives continues to be challenging, especially since climate-friendly projects in developing countries are often smaller than traditional counterparts. However, there are a few successful examples: at the PPCFI level, the IFC Climate Catalyst Fund has successfully secured co-investment from the State Oil Fund of Azerbaijan as well as an unnamed German pension fund. At the project level, a wind farm project in Mexico has secured investment from the global investment bank Macquarie, based in Australia, the Dutch pension investment group PGGM, and the Mitsubishi Corporation of Japan alongside public actors like the Inter-American Development Bank.

Potential solutions to the systemic challenges of weak investment conditions, limited deal pipelines, and scale are suggested below.

- **Providing broader-based support and fostering attractive investment conditions are important complements to PPCFI activities in order to build a successful deal pipeline.** As outlined in WRI's reports "Mobilizing Climate Investment"[43] and "Moving the Fulcrum,"[44] to build a robust pipeline of deals for PPCFIs to finance, the public sector (governments and development finance institutions) must continue to create and grow climate-friendly markets through dependable policies that ensure an attractive risk-reward profile, achieve scale, and promote healthy competition. Additionally, as demonstrated by some of

the recent PPCFIs models like CP3-Asia, the Climate Catalyst Fund, and the GCPF, providing technical assistance alongside direct finance can improve the risk-return calculus of projects.

- **Providing flexible financial inputs into PPCFIs and tailoring disbursements to market requirements can optimize finance flows.** The more flexibility PPCFIs have to tailor concessionality and risk taking through financial instruments and their terms, the more likely it is that the supply and demand for finance is matched.
- **Pooling projects and PPCFIs can help achieve the scale required by institutional investors,** but PPCFIs must still be able to demonstrate a strong track record, have a reliable investment manager, and offer a strong pipeline of attractive projects (among other requirements) to successfully secure investment. Furthermore, as outlined below, multi-donor PPCFIs must agree on common principles and requirements at the outset of a PPCFI's creation to limit redundancies and long approval and co-investment timeframes.

Operational Challenges: Awareness, Access, and Process

Navigating the complex landscape of PPCFIs and their varying access requirements can be daunting for private sector actors, thus increasing information and access to PPCFIs could increase the pipeline of investable projects. There is currently no go-to climate finance destination to help the private sector understand the landscape of public money for private sector funds and projects. The process of looking for money ensues in a relatively ad-hoc and relationship-driven manner, and often requires deep pockets to sustain business activities until finance is secured. This obstacle is especially painful for small companies and applicants from poorer countries, but even larger companies and funds often struggle to understand where to find public finance sources and how to meet the associated requirements.

Accessing money from PPCFIs can be cumbersome given the varying requirements of public institutions and the need to apply to multiple institutions to secure adequate finance. This problem can also occur in PPCFIs routed through recipient country institutions. Streamlining processes among PPCFIs and other institutions can help, but due diligence concerns and institutional inertia make it hard for institutions to come to a consensus. Furthermore, trimming processes or creating special concessions for climate-friendly projects could undermine environmental and social safeguards, damaging confidence in public institutions if projects sour.

Although national PPCFIs are not examined in the current version of this paper, preliminary consultations point to another process-related challenge: often, multiple bodies are responsible for channeling climate finance at the national level, and these bodies' activities are not always coordinated. Channeling money through one coordinating body or institution could help increase efficiency and effectiveness in the flow of PPCFI funds.

Solutions to the operational challenges of awareness, access, and process include:

- **Collective action to provide passive and active information tools.** Such tools can increase transparency, enabling private sector access to public pots of money. Examples of potential tools include ongoing data sharing on PPCFIs made available to the private sector and case studies that uncover successful "access stories." However, while information and case study tools are helpful starting points, these "passive tools" may not fully uncover what makes the most sense for individual projects and applicants. As a solution, "active tools" could supplement these passive tools. For example, development banks could put forward a strong set of frontline relationship managers to help the private sector navigate the PPCFIs and their varying requirements within institutions. Similarly, pro bono or subsidized advisory services could help make matches, particularly to increase the pipeline of projects that are smaller, showcase newer technologies, or those undertaken in less developed markets.
- **Standardizing common, or at least similar, processes and transaction documentation across PPCFIs** could help decrease transaction costs for both the PPCFIs and their recipients. This measure could include due diligence documentation requirements, legal agreements, and minimum requirements or criteria that are shared across multiple PPCFIs. Good examples are the current efforts of OPIC, the IFC, IDB, and others under the Green Growth Action Alliance to create templates, or at least principles, for standardized power purchase agreements. Outside of the climate change space, a group of international financial institutions have begun to harmonize development indicators

Box 7 | Case Study: Harmonizing Development Indicators across International Financial Institutions

In October 2013, 25 public international financial institutions (IFIs) signed a memorandum of understanding (MoU) to develop and adopt common indicators for private sector clients to report the development impact of their projects. Specifically, the MoU puts forward an initial set of 28 harmonized indicators for 12 sectors. Examples include "Number of Farmers Reached"; "Number & Amount of Outstanding Microfinance Loans"; and "Investments" in a particular currency. Currently, none of the initial set of 28 indicators is environment or climate change-related. As discussed in the MoU, the agreement aims to reduce reporting burdens for private sector clients who often have to report to multiple IFIs that require varying indicators, definitions, and calculation methods. Beyond reducing reporting burdens for private sector clients, the harmonized indicators can also help improve data collection methods, knowledge sharing between institutions, and improve the comparability of datasets across institutions. For example, a harmonized dataset will allow the IFIs to release and understand aggregated development impact results in a specific sector or region, allowing for a better understanding of gaps and needs on the ground.

Table B.1 | List of Institutions Signatories of the Memorandum

1	ADB	Asian Development Bank
2	AFDB	African Development Bank
3	BIO	Belgian Investment Company for Developing Countries
4	BOAD	Banque Ouest Africaine de Developpement
5	BSTDB	Black Sea Trade and Development Bank
6	CDC Group	
7	COFIDES	Compania Espanola De Financiacion Del Desarrollo
8	DEG	Deutsche Investitions- Und Enteick-lungsgesellschaft Mbh
9	EBRD	European Bank for Reconstruction and Development
10	EIB	European Investment Bank
11	FINNFUND	Finnish Fund for Industrial Cooperation LTD
12	FMO	Netherlands Development Finance Company
13	IDB	Inter-American Development Bank
14	IIC	Inter-American Investment Corporation
15	ICD	Islamic Corporation for the Develop-ment of the Private Sector
16	IFC	International Finance Corporation
17	IFU	Investment Fund for Developing Countries
18	MIGA	Multilateral Investment Guarantee Agency
19	NORFUND	Norwegian Investment Fund for Developing Countries
20	OeEB	Oesterreichische Entwicklungsbank
21	OPIC	Overseas Private Investment Corporation
22	PIDG	Private Infrastructure Development Group
23	PROPARCO	Societe de Promotion et de Participa-tion Pour la Cooperation Economique
24	SIFEM	Swiss Investment Fund for Emerging Markets
25	SWEDFUND	Swedfund International AB

Source: European Development Finance Institutions; Press Release and accompanying Memorandum of Understanding. "Harmonized Development Results Indicators for Private Sector Investment Operations" Available at http://www.edfi.be/news/all.html. 10/22/2013.

for private sector projects (see Box 7). Standardizing procedures could reduce the lag between project conception and transaction closing, ensure fair and more competitive access to sources of finance, and reduce resource requirements for both the public and private sectors, as long as appropriate safeguards and fiduciary responsibilities are not compromised. Common standards and requirements could also pave the way to aggregating projects and funds on a larger scale.

- **Creating syndication processes and coordinating at the fund level are measures that would take effort but could reap rewards if done correctly.** Coordination at the project level can sometimes result in greater transaction costs if each institution is conducting separate due diligence and underwriting processes. Streamlining due diligence processes among PPCFIs can alleviate the problem as long as there is adequate trust and common understanding among partners. Several European financial institutions have established good models for co-syndication. An intermediate step may involve agreeing on specific procedures for specific markets, or even broad-based principles.
- **Multi-donor PPCFIs can reduce transaction costs per dollar of finance disbursed and achieve scale,** but only when the PPCFI has agreed on common processes and procedures for the approval of projects within the PPCFI at the outset. Another consideration is that multi-donor PPCFIs can sometimes undermine innovation and flexibility. The level of risk-taking in multi-donor PPCFIs like the CIFs is typically defined by the least-willing partner in the PPCFI, resulting in finance provisioned toward already established markets.

Institutional Challenges: Knowledge Sharing and Institutional Norms

Sharing knowledge about best practices in mobilizing private investment among PPCFIs is limited partly because many PPCFIs are relatively new and still in the early stages of design. Over half the investment PPCFIs examined were launched in the past two to five years. As a result, many PPCFIs and contributing donors are not aware of their peers' activities. Moreover, the rapid pace at which some of these PPCFIs have been developed makes it difficult for them to exchange information and explore opportunities for cooperation. The pace of development is likely a result of political pressures by the owners of the institutions, mostly donor governments, to rapidly scale up climate-related investments. This pressure has limited the ability of these institutions to follow a more deliberate and coordinated approach and makes it difficult for recipients to keep abreast of the funding sources available.

Institutional norms and inertia can affect how smoothly public and private sector parties come to agreement on projects and PPCFI co-investment. Public sector institutions may insist on particular terms that are unclear or unacceptable to the private sector, or may have preferences for certain types of investments that are not in line with private sector practice. Conversely, private sector institutions may not appreciate the required safeguards and processes demanded by civil society and donor governments.

Solutions to increase information and access to finance include:

- **Delineating the unique offer of each public institution and sharing knowledge to improve access for the private sector resulting in more efficient uses of public finance.** The public sector is not always aware of PPCFIs launched by their peers, despite the fact that this information can help identify best practices and potential innovations. To blend public finance efficiently, share knowledge, and engender trust among institutions, donors, PPCFIs, and supporting institutions should landscape and delineate the unique roles of various institutions and establish optimal pathways for collective action.
- **Common standards, principles, and co-investment timelines** among public actors can help increase negotiation efficiency between public and private actors. Additionally, setting clear expectations with the private sector at the outset, including co-investment timelines, how to comply with environmental and social standards, and including due diligence processes, can help private sector and intermediary recipients plan accordingly.

Implementing Solutions

Broadly, coordination and collaboration among PPCFIs can help alleviate some of the systemic, operational, and institutional challenges discussed above. However, it is also important to note that if executed incorrectly, coordination and collaboration can unintentionally result in greater inefficiencies and impede innovation. For example, processing may take longer in multi-donor PPCFIs because of multiple underlying requirements from various donors. Furthermore, as previously mentioned, the ambitions existing in multi-donor PPCFIs may be limited as the collective group is forced to defer to the lowest common denominator among its donors.

Ways that PPCFIs and their supporting institutions currently coordinate, col**laborate, and innovate include:**

- **Using explicit structures to promote collaboration.** For example, the ICCF operational structure promotes greater collaboration among a group of European development financing institutions, while the CIFs promote collaboration between the multilateral development banks.
- **Coordinating within and among PPCFIs through co-investment.** PPCFIs with multiple donor investments like the GEEREF and REEEP can promote coordination among donors, and also are well-suited for inter-PPCFI collaboration since several donors support these and other PPCFIs concurrently. However, creating such coalitions can be challenging. Although some PPCFIs seek to draw in other partners (as in the case of the CCF where Canada contributed to PPCFI after the United Kingdom's contribution and promotion of the CCF), a strong association with a particular supporting institution or donor can often be a disincentive for others to join.
- **Designing complementary peer activities.** For example, SCAF provides early stage seed capital to project developers to enable them to develop bankable projects that can then attract private equity investments from PPCFIs such as GEEREF. More recently, ADB and GCPF have collaborated to develop a renewable-energy/energy-efficiency program in Indonesia with project preparation and grant support from the Clean Technology Fund of the CIFs.[45] These vertical partnerships among PPCFIs facilitate knowledge sharing and can enhance the collective impact of both PPCFIs.
- **Forming coalitions of institutions associated with PPCFIs.** For example, KfW has led the creation of the International Development Finance Club, a coalition of 19 national and subregional development banks representing assets worth over US$2.1 trillion in 2010, to network on issues of common interest, identify and develop joint opportunities, and share knowledge and best practices on climate finance as well as other development issues.

Future options to promote collaboration could include expanding current methods, taking regulatory action, or instituting **financial incentives (Table 4).**

- **Expanding existing voluntary coalitions and forums** can enhance information access, and promote collaboration and knowledge exchange among PPCFIs and supporting institutions. An expanded platform could build from existing initiatives like the IDFC and EDFI but would ideally capture more of the PPCFIs and supporting institutions surveyed. This relatively low-cost option comes with the challenge of ensuring that these platforms are ultimately utilized and updated by operational and policy staff of PPCFIs and associated institutions.
- **Rules and regulations can create strong incentives for collaboration and ensure financing gaps are filled.** However, negotiating specific of rules and regulations may be politically challenging. Furthermore, no existing bodies appear to have the authority to regulate the current landscape of PPCFIs. For example, the UNFCCC Standing Committee on Finance's mandate does not extend to institutions outside the UNFCCC, thus excluding many of the PPCFIs surveyed. Moreover, while public institutions may be able to respond to regulations, private sector financial institutions may not follow suit.

Table 4 | **Options to Improve Collaboration and Coordination among Public and Public-Private Climate Change Funds and Initiatives**

CRITERIA		DESCRIPTION	METHOD 1 FACILITATIVE PLATFORMS	METHOD 2 REGULATIONS	METHOD 3 FINANCIAL INCENTIVES
IMPACT	**Enhances collaboration**	Refers to the impact on increasing collaboration among the financial institutions supporting or participating in the PPCFIs.	Weak	Strong	Strong
	Addresses funding gaps	Refers to the impact on filling gaps in terms of geographies, themes, industries, and activities.	Weak	Strong	Strong
	Mobilizes private sector flows	Refers to the impact on mobilizing private sector capital into the PPCFIs or in the project investments made by the PPCFIs.	Weak	Moderate	Moderate
COST-EFFECTIVENESS	**Ensures institutional economy**	Refers to the need for creating new institutional structures to improve coordination and collaboration, and the processes for setting them up. If new institutions are needed, the method is marked "weak." Options are marked "strong" if existing institutions can be built upon.	Moderate	Weak	Moderate
	Ease in implementation	Refers to the ease with which an option can be implemented. Options that are more difficult and complex to implement are marked "weak," while those that are easier to implement are marked "strong."	Strong	Weak	Moderate
	Transaction costs	Refers to the costs associated with designing and implementing an option. If the costs are high, the option is marked "weak" and if the costs are relatively low, it is marked "strong."	Strong	Weak	Moderate

Source: WRI.

- **Financial means, such as concessional finance,** can incentivize coordination between PPCFIs. Existing multi-donor PPCFIs like the CIFs are able to mobilize co-investment from supporting public sector institutions partly because of the concessional finance they provide. Existing or proposed institutional structures like the Green Climate Fund and its Private Sector Facility could provide hubs to identify opportunities for coordination and allocate incentives appropriately.

CONCLUSIONS

By examining a range of PPCFIs, their working methods, and current challenges, this paper highlights initial lessons for other public financial institutions and mechanisms about how to improve the individual and collective effectiveness of climate finance in mobilizing private investment. These lessons are particularly pertinent to donor governments as they consider how to best spend their limited climate finance and define the role of existing and future institutions in the climate finance architecture.

A critical issue gleaned from the analysis is the limited private sector co-investment in PPCFIs at the fund level, and ongoing struggles to disburse funds quickly enough to private sector projects. These challenges are partly driven by systemic factors such as weak enabling conditions to attract private investment in low-carbon and climate-resilient markets. Even without addressing these bigger issues, PPCFIs and supporting institutions can tackle easier operational and institutional challenges. Solutions to these smaller challenges include providing collective information to the private sector, improving access to finance, and standardizing requirements while maintaining appropriate safeguards.

While some supporting institutions are making efforts to improve coordination and collaboration of PPCFIs through forums for dialogue, pooling of resources in some PPCFIs, or by supporting complementary activities, these efforts have been limited in scope. Competition among donors and supporting institutions, and their respective political and legal mandates limit their ability to be flexible and innovative as a collective unit. Also, the lack of incentives for any one institution to take the lead in promoting collaboration impedes collaboration across the board.

Several methods are available to increase coordination and collaboration, and they could be used in concert: they include creating facilitative platforms that encourage operational coordination, regulating PPCFIs, and/or creating financial incentives. The proposed Green Climate Fund and its Private Sector Facility could play an important role in executing these methods.

Ensuring the efficient and effective use of climate finance is a key concern both to donors, who need to provide assurances to their taxpayers, and to recipients, who want to maximize the impact of limited funds available to them in the most cost-effective manner. Therefore, donors and public financial institutions must avoid duplication of efforts, address finance gaps, enable recipient countries to more efficiently access funds, and allow them to program resources effectively.

Collective action and a sense of partnership among donors and other financial institutions will be necessary to scale climate investments, achieve the scale of resources across a range of countries and sectors that need substantial investments to address the climate change challenge, and enable developing countries to shift toward low-carbon, climate resilient development.

ENDNOTES

1. WRI aims to update this paper periodically to reflect changes in PPCFIs and to expand the list of PPCFIs surveyed, particularly to include those created by developing country governments.
2. Currency converted to U.S. dollars using http://www.oanda.com, Dec. 31 2012 rates.
3. Data represent capital committed to a fund or initiative, not annual disbursements. These figures represent aspirational or projected size in some cases and the current capitalization of a fund or initiative in others.
4. WRI gathered this data through online data sources, donor government and financing institutions' websites, and well as consultations with development finance institutions and donor governments.
5. See Box 1 for a definition of "climate-relevant."
6. Green Growth Action Alliance, *The Green Investment Report: The Ways and Means to Unlock Private Finance for Green Growth*, (Geneva, Switzerland: World Economic Forum, 2013), available at http://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf.
7. Shally Venugopal and Aman Srivastava, "Moving the Fulcrum: A Primer on Public Climate Financing Instruments Used to Leverage Private Capital," WRI Working Paper, World Resources Institute, Washington DC, August 2012, available online at http://www.wri.org/publication/moving-the-fulcrum.
8. Emerging markets (see Box 1 for a definition of emerging markets) tend to attract more private sector investment since by definition their economies are more established and tend to have more developed financial markets in which private sector investors feel comfortable investing.
9. Based on our surveys of fund websites and public information.
10. See http://www.idfc.org/ for more information on the International Development Finance Club.
11. See WRI's report "Mobilizing Climate Investment" which details a framework for the public sector to mobilize investment by creating attractive investment conditions. Clifford Polycarp, Louise Brown, and Xing Fu-Berteaux, "Mobilizing Climate Investment: The Role of International Climate Finance in Creating Readiness for Scaled-up Low-carbon Energy," WRI Report, World Resources Institute, Washington DC, available at http://www.wri.org/our-work/topics/finance.
12. Green Climate Fund "Business Model Framework: Private Sector Facility," Private Sector Facility Objectives, Available athttp://www.gcfund.net/fileadmin/00_customer/documents/pdf/B-04_07_BMF_PSF_12Jun13_1745s.pdf.
13. Based on projections of upfront investment needs; these projections were released in 2008 or 2009 by McKinsey & Company, International Institute for Applied Systems Analysis, International Energy Agency, and Potsdam Institute for Climate Impact Research. Estimates are for stabilization of greenhouse gases at 450 ppm CO2e, which would provide a 22–74 percent chance of staying below 2°C warming by 2100, according to the Intergovernmental Panel on Climate Change (IPCC).
14. Green Growth Action Alliance, *The Green Investment Report: The Ways and Means to Unlock Private Finance for Green Growth*, (Geneva, Switzerland: World Economic Forum, 2013), available at http://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf.
15. WRI's climate finance series is available at http://www.wri.org/our-work/project/climate-finance.
16. Refer to WRI Working Paper: Venugopal and Srivastava "Moving the Fulcrum."
17. Currency converted to US$ using http://www.oanda.com, Dec. 31 2012 rates.
18. Heinrich Boll Stiftung and Overseas Development Institute website (http://www.climatefundsupdate.org/).
19. World Bank and United Nations Development Programme website (http://www.climatefinanceoptions.org).
20. These corpuses are not directly comparable because each of the PPCFIs provided information on either its actual size or its aspirational size.
21. Global Climate Partnership Fund, "Objective of the Fund," available at http://gcpf.lu/objective-of-the-fund.html (accessed October 2013).
22. Belgian Investment Association, "Interact Climate Change Facility," available at http://www.bio-invest.be/en/portfolio/multiregional/details/84.html?mn=6 (accessed October 2013).
23. Global Climate Partnership Fund, "Objective of the Fund," available at http://gcpf.lu/objective-of-the-fund.html.
24. UK's International Climate Fund, "Basic Description: Objectives," available at http://www.climatefundsupdate.org/listing/international-climate-fund.
25. AVCI, available at http://www2.adb.org/Documents/RRPs/REG/44945-01-reg-rrp.pdf (accessed October 2012); RRIF, available at http://www.opic.gov/press-releases/2011/opic-board-approves-nearly-500-million-five-renewable-resources-investment-funds (accessed October 2012); SECCI, available at http://www.iadb.org/en/topics/climate-change/secci,1449.html (accessed October 2012).
26. Global Village Energy Partnership, available at http://www.gvepinternational.org/ (accessed October 2013).
27. United Nations Framework Convention on Climate Change, "Private Sector Initiative—Database of Actions on Adaptation." For a survey of adaptation projects and programs, see http://unfccc.int/adaptation/workstreams/nairobi_work_programme/items/6547.php.
28. The GCPF does not target a subregion per se; rather, it prioritizes investments in 13 focus countries around the world. The PECF targets Pacific Island States.
29. National level (that is, recipient country supported) PPCFIs will be further explored in the update of this paper.
30. Based on surveys of fund websites and public information.
31. As outlined in the relevant governance documents establishing each of the PPCFIs or on the PPCFIs' supporting institution websites.
32. European Investment Bank (EIB), "Asia and Latin America," available at http://www.eib.org/projects/regions/ala/index.htm.
33. Global Climate Partnership Fund (GCPF), available at http://gcpf.lu/home.htm.
34. Overseas Private Investment Corporation, "Renewable Resources Investment Funds," October 2012, available at http://www.opic.gov/investment-funds/calls-for-proposals/global-renewable-resources-funds/faq .

35. World Bank, "Mexico, Efficient Lighting and Appliances Project Appraisal Document, Latin America and Caribbean," available at http://www.climateinvestmentfunds.org/cifnet/sites/default/files/Mexico%20Efficient%20Lighting%20and%20Appliances%20Project%20-%20Approved.pdf.
36. Energy+ is a partnership that serves as a platform; therefore, its private sector partners can provide financing.
37. See WRI's report "Mobilizing Climate Investment," which details a framework for the public sector to mobilize investment by creating attractive investment conditions. Polycarp, Brown, and Fu-Berteaux, "Climate Investment: The Role of International Climate Finance."
38. See WRI's reports "Moving the Fulcrum," "Public Financing Instruments to Leverage Private Capital for Climate-Relevant Investment," and "Unlocking Private Climate Investment," available at http://www.wri.org/publication/moving-fulcrum; http://www.wri.org/publication/public-financing-instruments-leverage-private-capital-climate-relevant-investment; and http://www.wri.org/publication/unlocking-private-climate-investment-focus-on-opic-and-ex-im-bank, respectively.
39. Shally Venugopal and Aman Srivastava, "Reading Resources on Using Public Climate Finance to Leverage Private Capital," World Resources Institute, Washington DC, available at http://www.wri.org/sites/default/files/reading_resources_using_public_climate_finance_to_leverage_private_capital_june2013.pdf.
40. Jochen Harnisch, "The Role of Development Banks/IFI's in a Green Economy," KfW, Competence Center Environment & Climate, available athttps://www.kfw-entwicklungsbank.de/migration/Entwicklungsbank-Startseite/Entwicklungsfinanzierung/Umwelt-und-Klima/Konferenzen-und-Veranstaltungen/Side-Event-SB-38-in-Bonn-2013/The-Role-of-Development-Banks-IFIs-in-a-Green-Economy.pdf.
41. Venugopal and Srivastava, "Reading Resources on Using Public Climate Finance to Leverage Private Capital." Available at http://www.wri.org.
42. For example, in reviewing its past disbursements, one development finance institution found that concessional funds were often used even though attractive commercial finance was available.
43. See WRI's report, "Mobilizing Climate Investment," which details a framework for the public sector to mobilize investment by creating attractive investment conditions. Polycarp, Brown, and Fu-Berteaux,"Climate Investment: The Role of International Climate Finance."
44. Shally Venugopal and Aman Srivastava, "Moving the Fulcrum: A Primer on Public Climate Financing Instruments Used to Leverage Private Capital," WRI Working Paper, World Resources Institute, Washington DC, August 2012, available at http://www.wri.org/publication/moving-the-fulcrum.
45. Climate Investment Funds (CIFs), "Indonesia's CTF Programming," available at http://www.climateinvestmentfunds.org/cifnet/?q=country-program-info/indonesias-ctf-programming.

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