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Approach and Methodology

PUBLIC FINANCING INSTRUMENTS TO LEVERAGE PRIVATE CAPITAL FOR CLIMATE-RELEVANT INVESTMENT: FOCUS ON MULTILATERAL AGENCIES

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This document explains the approach and methodology WRI employed in Sections II, III, and IV of its working paper "Public Financing Instruments to Leverage Private Capital for Climate-Relevant Investment: Focus on Multilateral Agencies". Using a mix of project data analysis and case studies, the paper highlights how financing instruments have been employed in different geographies and sectors to leverage private sector participation.

For full text of the working paper go to:
http://www.wri.org/publication/public-finance-instruments-to-leverage-private-capital-for-climate-investment.

It should be noted that the exact definition of the term "leverage" is open to debate. It is often used interchangeably with the term "mobilization"; but it is sometimes associated with the use of new and additional private sector capital outside of business-as-usual (BAU) scenarios.[1] In its analysis, WRI uses "leverage" to signify the dollars of private sector capital that have been mobilized to co-finance a project for every dollar of public sector money; WRI has not attempted to make any distinctions on the basis of causality.

The dataset that WRI reviewed is not a complete data set of all climate change projects financed by the agencies under study; rather, it provides a sample of 214 projects from which to identify trends in the use of financing instruments.[2]

This document includes information on WRI's:

- Data collection and selection process;
- Data and analytical approach, by constituent unit, for each agency under study; and
- Insights, caveats, and study limitations.

To compile the data used in this analysis, WRI relied primarily on desk reviews of publicly available programs and project documentation as well as interviews/consultations with personnel across the agencies, representatives of other international financial institutions (IFIs), and private sector actors with whom these types of entities work (that is, project developers and private sector financiers). While WRI employed best efforts to cover a range of perspectives in collecting and analyzing the data described, its analysis may not exhaustively reflect all of the issues pertaining to the setup, structure, or performance of the financing agreements under study. Nonetheless, WRI believes that this paper will inform future investments, encourage the availability of relevant data, and provide guidance for further study in this field.

DATA COLLECTION AND SELECTION PROCESS

Agency Scope / Selection

WRI collected project data on the following multilateral agencies:

International Climate Funds

- Global Environment Facility (GEF)
- Clean Technology Fund (CTF)

Multilateral Development Banks: The Financing Agencies of the World Bank Group (WBG)

- International Bank for Reconstruction and Development (IBRD)
- International Development Association (IDA)
- International Finance Corporation (IFC)
- Multilateral Investment Guarantee Agency (MIGA)

WRI only surveyed agencies that are actively investing in climate-relevant projects (as defined by the institutions themselves) and excluded agencies that do not—or have yet to—conduct investment activities. Additional units and trust funds linked to climate-relevant activities were beyond the scope of the analysis, either because they do not provide financing or because of their focus on carbon markets[3] and/or forestry mechanisms. Examples of excluded agencies include:

- World Bank carbon funds and facilities such as the Prototype Carbon Fund, BioCarbon Fund, Community Development Carbon Fund, Umbrella Carbon Facilities, Carbon Partnership Facility, Carbon Initiative for Development, Forest Carbon Partnership Facility, Partnership for Market Readiness, or any of the European carbon funds.
- The International Center for Settlement of Investment Disputes, which does not undertake any investment activities.
- The IFC's Post 2012 Carbon Facility.

Project Selection

To capture the agencies' experiences in leveraging private sector participation,[4] WRI selected 80 projects financed by the GEF, 25 projects financed by the CTF, and 109 projects (from a universe of around 7,800 climate change and non-climate-relevant projects) financed by the WBG directly.

Number of Projects Analyzed

- GEF-funded projects : 80/1,250+ (with "climate change" focal area)
- CTF-funded projects: 25/35 (35 including project preparation grants)
- IBRD/IDA-funded projects (without GEF/CTF funding): 40/700+ (with "climate change" theme)
- IFC-funded projects (without GEF/CTF funding): 55/300+
- MIGA-guaranteed projects: 14/180+

This paper draws directly from the past experiences of the GEF, CTF, and WBG in financing low-carbon development; only a subset of financed projects—specifically, those deemed as "climate-relevant"—were included in the analysis. Projects were determined to be climate-relevant based on criteria set up by each agency, as described below in Section II. Generally, WRI included projects with proceeds used for climate change mitigation or adaptation activities. Sectors captured by the analysis include Agriculture, Fishing, and Forestry; Energy and Mining (including Renewable Energy and Energy Efficiency); Finance; Manufacturing; Oil and Gas; Transport; and Water, Sanitation and Flood Protection. Due to public data unavailability, WRI was unable to capture all projects relevant to climate change and so data was collected on a "best efforts" basis.

Financing data on each of the chosen projects were culled from publicly available agency databases. Agencies do not uniformly capture the same information, and so selection criteria varied among agencies and the assumptions made to draw analysis. The specific sources for each agency are listed below.

- GEF: http://www.thegef.org/gef/gef_projects_funding, complemented by the websites of implementing agencies.
- CTF: http://www.climateinvestmentfunds.org/cif/node/59, complemented by the websites of implementing agencies.
- IBRD/IDA: http://web.worldbank.org/external/projects/main?pagePK=217672&piPK=95916&theSitePK=40941&menuPK=64140078&category=THEME&goalid=81
- IFC: http://www.ifc.org/projects
- MIGA: http://www.miga.org/projects/index.cfm?stid=1821

Key data points collected and examined included:

- The type of financial instruments and support used to fund the project, and—where information was available—the terms and structure of the financing.
- Project characteristics, including the project's geography, technology, and sector, as well as the specific use of proceeds.
- The amount and type of funding provided by public and private co-financiers.

DATA AND ANALYTICAL APPROACH

Given the variations between the purposes, priorities, and financial instruments offered by the GEF, CTF, and the WBG, WRI's methodology for compiling and analyzing the data differs between each agency. As a result, conclusions should not be compared across agencies. Rather, the analysis intends to present an overall picture of how each agency interacts with the private sector through the use of financing instruments.

As data were relatively transparent for GEF and IDA/IBRD projects, WRI examined both private sector participation as well as the use of financing instruments. For IFC, MIGA, and many of the CTF-funded projects, data on private sector participation were unavailable due to confidentiality restrictions. As a result, WRI's analyses on the latter units focus only on the use of financing instruments and their potential to leverage private sector participation in projects.

The scope of this analysis differs from previous papers undertaken in a similar vein. For example, a Department for International Development (DFID)-commissioned report that analyzes Multilateral Development Bank (MDB) financing potential takes a general balance-sheet approach to the climate financing capacity of MDBs, associating leverage with the ratios of the institutions' development-related expenditures to their equity.[5] In contrast, the analysis in WRI's paper takes a more in-depth look at the actual financing details of climate-relevant projects and defines leverage as the dollars of private sector capital that have been mobilized to co-finance a project for every dollar of public sector money.

WRI strived to ensure consistency in the methodology, while keeping the data as current as possible. However, data are inconsistent and they conflicted over the range of sources—sometimes even within a single source. Examples of such inconsistency include:

- Projects listed on the World Bank database have multiple documents, including project appraisal documents, project information documents, loan agreements, implementation status and results reports, project papers, and so on. While the most comprehensive of these documents are the project appraisal documents (upon which this study heavily relied), they are not consistently the most up-to-date in terms of funding structures and other details.

- The CTF database contained multiple documents, including the proposed decision documents, the project approval request document, the technical assistance report document, and so on. The details specified in these documents were found to differ among each other, and in many cases from the details available on the websites of the respective implementing agencies.

- GEF-financed projects are listed both in the GEF database and in the World Bank database with its extensive array of documentation. The GEF database itself also has executive summaries, project documents, appraisal documents, project identification forms, scientific and technical advisory panel reviews, and so on, many of which presented conflicting information.

- The IBRD and IDA classify projects based on percentage of project costs directed to climate-relevant activities, whereas the IFC and GEF assign "keywords" and "focal areas," respectively. MIGA, however, has no such classification category or percentage breakdown; therefore MIGA projects were analyzed by WRI on a case-by-case basis, and large hydropower projects were uniformly excluded through WRI evaluation (See Project Selection, Section E below).

In such cases of inconsistency, WRI determined the most appropriate source through staff analysis and interviews. These decisions included an element of subjectivity, but such subjectivity was in line with the theme and purpose of this analysis.

Details on the selection criteria and by different agencies are listed below (see Table 1).

Project Selection (By Agency)

Global Environment Facility (GEF)

GEF projects are well documented, with information available through the GEF and implementing agency websites. GEF projects were selected for analysis based on the criteria below.

- *Implementing agencies:* Projects implemented through multilateral development banks (MDBs) were considered for analysis. These MDBs comprise the World Bank Group (WBG), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), and the African Development Bank (AfDB). The below implementing agencies are not Development Financing Institutions, and projects routed through them were hence not considered.
  - The United Nations Development Programme.
  - The United Nations Environment Programme.
  - The Food and Agriculture Organization of the United Nations.
  - The United Nations Industrial Development Organization.
  - The International Fund for Agricultural Development.

- *Temporal scale:* WRI considered projects that were approved by the implementing agency (that is, not the GEF) between January 1, 2005, and December 31, 2011.

- *Project costs:* WRI excluded projects with estimated costs under $10 million, to limit the dataset to more substantive investment activities.[6]

- *Climate change focus:* Projects classified with "climate change" focal area, as defined by the GEF (Unlike previous WRI reports,[7] this may include projects supporting multiple focal areas) were considered.[8]

- *Fund:* Projects under the GEF Trust Fund, the Least Developed Countries Fund (LDCF), and the Strategic Climate Change Fund (SCCF) were all considered.

- *Geographic coverage:* WRI considered only projects with a specific country focus (regional projects were excluded).

- *Project type:* Only full-sized projects were studied (enabling activities, medium-sized projects—as classified by GEF/WBG—and funds allocated under the Small Grants Program, were excluded).

The Clean Technology Fund (CTF) of the Climate Investment Funds (CIF)

The Climate Investment Funds (CIFs) include two funds: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF).

The CTF approved its first project in May 2009 and has financed a limited number of projects to date. WRI examined these projects and accessed relevant information through the CTF websites and implementing agency websites.

The CTF disburses its funds to various projects within a country via overall country investment plans. WRI did not consider the funds allocated to a country under these country investment plans; only documents pertaining to specific projects were examined. CTF projects were selected for analysis based on the criteria below.

- *Implementing agencies:* Projects implemented through all its agencies were included for analysis. These agencies comprised the ADB, AfDB, EBRD, IDB, and WBG.

- *Temporal Scale:* Projects approved since inception and before December 31, 2011 were considered.

- *Project costs:* All CTF-funded projects were greater than $10 million and were included. However, project preparation grants, supervision services, impact assessments, and so on, were not considered as they were incidental and did not contribute to actual project execution.

- *Geographic coverage:* Projects across all countries and regions were included.

- *Climate change focus:* As the CTF invests only in clean technology projects, all projects were considered for analysis.

While the Pilot Program for Climate Resilience (PPCR) of the SCF is now operational, it is still largely at the project preparation stage. Overall, the SCF had not commenced any major financing activities at the time of this paper's writing and is thus not considered for the purposes of the study.

International Bank for Reconstruction and Development/ International Development Association (IBRD/IDA)

Data on IBRD/IDA-financed projects were comparatively robust since these arms focus on the public rather than the private sector, and are not encumbered by confidentiality or legal disclosure issues. IBRD/IDA projects were selected for analysis based on the following criteria:

- *Temporal scale:* WRI included projects approved between January 1, 2005, and December 31, 2011.

- *Execution status:* All projects were included, except those categorized as dropped (i.e., projects that were proposed or approved but have since been canceled) and pipeline (those still pending approval).

- *Project costs:* Projects whose total estimated costs were in excess of $10 million were considered.

- *Climate change focus:* Projects that had at least a 10% focus on the theme of climate change.[9,10]

- *Geographic coverage:* WRI included only projects with a specific country focus (regional projects were excluded).

- *Co-financing:* To get a more accurate perspective of private sector involvement in the financing mix, only projects with co-financing were included. This co-financing was from sources in the public and private sectors, as well as from other development finance institutions. Examples of excluded projects include:

  - Recipient-executed activities—such projects had no listed descriptions and no associated documents.

  - Carbon offsets—there was no up-front finance with which to leverage additional funds, and further, the deal size was less than $10 million.

- *Project type:*[11] In an effort to limit scope and focus on larger projects that are more attractive to the private sector, all projects are included except those classified in the WBG project database as GEF medium-sized programs.

Table 1 | **Summary Table of Selection Criteria**

SELECTION CRITERIA	IBRD/IDA	IFC	MIGA	GEF	CTF
Temporal Scale	Jan. 1, 2005 – Dec. 31, 2011	Jan. 1, 2005 – Dec. 31, 2011	2005 - 2011	Jan. 1, 2005 – Dec. 31, 2011	Commencement (2009) – Dec. 31, 2011
Project Costs	$10m+	N/A	N/A	$10m+	$10m+
Execution status	Active or closed	Active or closed	Active and inactive	N/A	N/A
Implementing Agencies	N/A	N/A	N/A	IBRD/IDA, IFC, ADB, EBRD, IDB, AfDB	IBRD/IDA, IFC, ADB, EBRD, IDB, AfDB
Climate Change Focus	More than 10% listed as climate change-relevant under project theme	"Climate change" keyword	Determined from WRI case-by-case examination	"Climate change" focal area	CTF aimed at long-term emissions reductions and so all projects were assumed to be climate change-relevant.
Co-financing	Yes	N/A	N/A	Yes	N/A
Project Type	■ Global Environment Project ■ IBRD/IDA	Investment projects	"Non-Small Investment Program" projects	Full-sized projects through GEFTF, LDCF, SCCF	All
Geographic Coverage	Country-specific	N/A	N/A	Country-specific	All
Inclusion Summary	Active or closed, country-specific projects with total costs over $10 million, co-financing, and at least 10% of the financing directed toward climate change mitigation activities categorized as Global Environment Projects or IBRD/IDA projects.	Active or closed investment projects with keyword "climate change."	Active and inactive "Non-Small Investment Program" projects that, based on a case-by-case WRI examination, were determined to be climate change-relevant.	IBRD/IDA, IFC, ADB, EBRD, IDB and AfDB implemented, country-specific, full-sized projects with total costs over $10 million and a "climate change" focal area, though other areas were considered if they were classified as climate-change relevant on the WBG website.	IBRD/IDA, IFC, ADB, EBRD, IDB, AfDB country-specific projects with total costs over $10 million.
Exclusion Summary	Dropped or pipeline, region-specific projects, with total costs less than $10 million or less than 10% of financing targeted toward climate change financing, or categorized as special financing, recipient executed activities, rainforest, Montreal protocol, guarantees, GEF medium-sized program, or carbon offset.	Pending projects, advisory services, projects without "climate change" as an associated keyword.	Small Investment Program projects that were not determined to be climate change-relevant in WRI's case-by-case examination.	Regional- and global-specific, medium-sized and enabling projects implemented by UNDP, UNEP, UN FAO, UNIDO, and IFAD. Projects focused on biodiversity, international waters, ozone depletion, land degradation, & persistent organic pollutants. Also excluded all canceled projects.	Projects in the preparation stage, impact assessments, projects approved in 2012.

Source: WRI based on information from agency websites.

International Finance Corporation (IFC)

Because the IFC works directly with the private sector, project documents are bound by various confidentiality clauses, limiting the information available for this analysis. As a result, IFC projects were selected for analysis based on the criteria below.

- *Temporal scale:* Projects included were approved between January 1, 2005, and December 31, 2011.
- *Execution status:* WRI included projects that were either active or closed ("pending" projects were excluded).
- *Climate change focus:* WRI studied projects that were classified by the IFC with the keywords "climate change" and whose stated development impacts listed specific climate benefits.
- *Project type:* Only investment projects were considered (advisory services[12] projects were excluded).

Multilateral Investment Guarantee Agency (MIGA)

As a result of the support extended to the banking sector in the wake of the recent financial crisis, MIGA faces disproportionately high exposure in the financial sector and does not appear to have a specific mandate to offer political risk insurance (PRI) in projects pertaining to climate change. Due to the limited available project details and data, WRI considered the following factors when examining MIGA projects:

- *Temporal scale:* Projects that were approved between 2005 and 2011 were considered.
- *Project type:* All projects were included except for those categorized as Small Investment Program[13] projects.
- *Execution status:* Active and inactive projects were considered for analysis.

Due to MIGA's limited search capability, these criteria returned approximately 180 results.[14] A case-by-case examination of results by WRI staff suggested only 14 projects related to climate change mitigation. Due to a lack of information and documentation, short-listing the selected projects from 180 to 14 required WRI to use its best judgment to infer the degree to which a project would positively influence climate change mitigation efforts (e.g., determining which hydropower projects were too large to qualify for emissions mitigation). It should be noted that of the 14 MIGA projects considered for analysis, five were inactive.

Analysis Approach

Features

The key features that were considered and tabulated across projects are listed below.

- Primary agency issuing or implementing the financing.
- Date of project approval (separate columns for fund and implementing agency, in the case of GEF and CTF projects).
- Total costs of the project[15] and the breakdown of funding by various sources,[16] classified under:
  - Institution (GEF, CTF or IBRD/IDA, IFC, MIGA)
  - Implementing agency (in the case of GEF and CTF projects)
  - Other international donors
  - Local governments and public institutions
  - Private sector sources
- The primary financial instruments employed by the WBG (or affiliated fund) and the terms of funding,[17] if available.
- The project's sectors of economic activity (listed below).
- The project's geographic region of the world (listed below).

Factors not considered during the data tabulation include the following:

- WRI did not account for additional financing as a result of cost overruns or changes in project scope.
- WRI did not look at actual monetary disbursals and transformational impacts, as these could be affected by cost overruns or changes in scope. Rather, it mapped only the initial financing mix.[18]
- WRI did not compare expected transformational impacts across financial instruments or per unit of cost/time.

- Large hydropower projects were excluded from the MIGA analysis as large hydropower's impact on climate change mitigation is debatable. Additional guidance for sector classification was sourced from the November 2011 workshop "Joint MDB Working Group on Climate Finance Tracking."

- WRI did not use weighted averages to classify projects that (1) used multiple instruments, (2) fell across multiple sectors, or (3) dealt with both mitigation and adaptation, as the available information did not support such sub-classifications.

- WRI did not consider the skew of distributions or exclude outliers from the analysis.

Classification

The projects analyzed were categorized geographically, by economic sector and by two additional WRI classifications: climate change strategy and funding objective.

GEOGRAPHIC REGIONS

WRI categorized the projects as falling under six broad developing regions. These include Africa, East Asia and the Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), and South Asia.

SECTORS OF ECONOMIC ACTIVITY (SEE TABLE 2)

As different institutions often followed different systems of sector classification,[19] WRI categorized projects under seven broad sectors of economic activity (based largely on WBG convention):

- Agriculture, fishing, and forestry—including land management

- Energy and mining—including energy efficiency and renewable energy

- Finance

- Manufacturing

- Oil and gas

- Transport—including ports, waterways, and shipping

- Water, sanitation, and flood protection

Projects with sector classifications falling outside of WRI's categories were reevaluated on a case-by-case basis to determine the primary project components and objectives. Certain categories, including finance, manufacturing, and oil and gas, are specific to the private-sector focused units and cannot be collapsed into broader categorizations such as energy. Other categories can be collapsed into the broader classifications listed above. Such categories include, for example, renewable energy projects originally classified by the IFC as "power" projects. GEF projects classified as "power" were reevaluated and categorized by WRI as focused on either energy efficiency or renewable energy.

WRI's Additional Classifications

CLIMATE CHANGE STRATEGY

Projects were categorized as mitigation or adaptation, based on whether they contributed to greenhouse gas emissions reductions or to building resilience to climate hazards, respectively.

A total of six projects (two from the IBRD/IDA and four from GEF) addressed both mitigation and adaptation. WRI double-counted these projects and classified them under both mitigation and adaptation. This did not significantly affect the ratio of mitigation to adaptation projects. This double-counting ensures the inclusion of these six projects in the analysis, while avoiding potentially erroneous weighted distributions.

FUNDING OBJECTIVE[20]

Based on the use of the funding, projects were classified under the following objectives:

- Project financing—money financing the creation and execution of a project.

- Technical assistance—assistance in developing systems, technical expertise, and/or for knowledge transfers.

- Financial assistance—disbursing money to an intermediary for on-lending to numerous smaller RE/EE endeavors.

- Policy loan—supporting policy and institutional reforms (offered only by IBRD).

A large percentage of the projects had multiple funding objectives, and therefore this system of classification was necessarily subjective. In the case of multiple objectives, projects were not double-counted; WRI examined project descriptions on a case-by-case basis to determine into which categories they best fit. Policy loans were clearly identifiable because they are classified as Development Policy Loans by the World Bank. For other funding objectives, WRI determined which of the above classifications best fit the main components of each project.

Tabulation System

Due to the differences in project focus and the choice of instruments offered, the analyzed projects are not comparable across the institutions and funds. For example:

- The IBRD and IDA focus on public sector lending, while the IFC and MIGA focus on private sector investment and the GEF and CTF involve a mix of both.
- The IFC offers a broad range of instruments, while the GEF offers only grants.

Because of this variability, WRI compared projects only within the same institution/division (despite parallel funding from the WBG)[21] and within the same arm of the WBG. In light of the inability to compare projects across entities, the projects were compared separately for:

- GEF (independently assessed)
- CTF (excluding GEF-funded projects)
- IBRD/IDA (excluding CTF- and GEF-funded projects)
- IFC (excluding CTF-funded projects)
- MIGA (independently assessed)

Many projects used multiple financial instruments (see Table 2 for classification) offered by the funds and implementing agencies, or had impacts across multiple sectors. Although these instruments and sectors are listed individually, the analysis focused on the main instrument and primary sector of each project. Due to the risk of potential overlap and skewed analysis, this strategy differs from the one followed for mitigation and adaptation project classification.

Analytical Approach

GLOBAL ENVIRONMENT FACILITY (GEF)

WRI created tables for this analysis to examine and compare the details of certain variables across implementing agency, financial instrument, climate change strategy, sector of economic activity, geographic region, largest projects, and dates of approval. Sample variables were calculated as follows:

- Average project size: Total project cost/Number of projects
- Average GEF money: GEF money/Number of projects
- Other money/GEF: (Total project cost—GEF money)/GEF money
- Private sector/GEF: Private sector/GEF money
- Mitigation/Adaptation (M/A) ratio: Mitigation projects/Adaptation projects

CLEAN TECHNOLOGY FUND (CTF)

To conduct the CTF analysis, WRI recreated the tables used for the GEF—replacing the column for GEF funding with a column to capture the amount of CTF money being invested in the project. Sample variables were calculated as follows:

- Average project size: Total project cost/Number of projects
- Average CTF money: CTF money/Number of projects
- Other money/CTF: (Total project cost—CTF money)/CTF money
- Private sector/CTF: Private sector/CTF money

Table 2 | **Summary of CTF, GEF, and WBG Financing Instruments for Climate-Relevant Projects**

AGENCY	FINANCING INSTRUMENTS	RELEVANCE TO CLIMATE CHANGE	WRI CLASSIFICATION
International Climate Funds			
CTF	Loans and grants	Scaled-up financing for low-carbon technologies; all investments include a grant component to provide incentive to facilitate scale-up of technologies	CTF (due to lack of further data)
	Equity	Direct early-stage investment in companies to enable accelerated market change	CTF (due to lack of further data)
	Guarantees	Incentivize investments in low-carbon technologies by mitigating specific risks	CTF (due to lack of further data)
GEF	Grants	Provide technical assistance and implementation abilities	
Multilateral Development Bank			
WBG public sector arms: IBRD, IDA	Specific Investment Loans	Long market rate-based tenors with customizable repayment terms	Loans
	Development Policy Loans	Improve enabling environment of domestic markets by developing/improving regulatory and policy frameworks	
	Credits	Long tenors at concessional or no interest rates	Credits
	Grants	Help maintain external debt sustainability	Grants
	Guarantees	Hedge against public sector failure to meet contractual obligations	Guarantees
	Weather hedges	Hedge against specific risks—infrequently used	Not included due to data unavailability
	Currency swaps		
	Interest rate swaps		
	Interest rate caps and collars		
	Commodity swaps		
WBG private sector arm: IFC	Loans	Market rate loans to for-profit projects	Loans
	Subordinated loans	Encourage co-financing by assuming first-loss positions	Quasi-equity
	Quasi-equity		
	Equity	Provide capital and retain ownership	Equity
	Investments in private equity funds		
	Credit risk guarantees	Guarantee repayment to boost investor confidence	Risk sharing facilities
	Risk sharing facilities		
	Securitization	Hedge against specific risks—infrequently used	Not included due to data unavailability
	Currency swaps		
WBG: MIGA	Political risk guarantees	Insurance against risks such as breach of contract, expropriation, civil war, etc.	Guarantees

Source: WRI based on information from agency websites[22]

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/INTERNATIONAL DEVELOPMENT ASSOCIATION (IBRD/IDA)

To conduct the IBRD/IDA analysis WRI recreated the tables used for the GEF and CTF —replacing the column for funding from these agencies with funding from the WBG.

Sample variables were calculated as follows:

- Average project size: Total project cost/ Number of projects
- Average WBG money: WBG money/Number of projects
- Other money/WBG money: (Total project cost —WBG money)/WBG money
- Private sector/WBG: Private sector/WBG money
- Mitigation/Adaptation (M/A) ratio: Mitigation projects/Adaptation projects

INTERNATIONAL FINANCE CORPORATION (IFC)

Due to limited data availability for financing of IFC projects, this component of the analysis was more restricted in scope. Projects were compared by region, primary instrument used,[23] total participation of instruments, and dates of approval. Sample variables were as follows:

- Average project size: Total project cost/ Number of projects
- Average IFC money: IFC money/Number of projects
- Other money/IFC money: (Total project cost —IFC money)/IFC money

MULTILATERAL INVESTMENT GUARANTEE AGENCY (MIGA)

MIGA did not directly finance any projects; it provided guarantees to cover the investments in various projects. Since no money was disbursed by MIGA in issuing these guarantees, this study did not consider project costs for this particular analysis. The only factors considered across sectors were the number of projects, the amounts guaranteed, the risks covered by the guarantees, and the time span of the guarantees. Sample variables were as follows:

- Average amounts: Total guarantee amounts/Number of projects
- Average time span: Total time span/Number of projects

Table 3 | **Summary Table of Variables Analyzed**

VARIABLES	IBRD/IDA	IFC	MIGA	GEF	CTF
Average Project Size	X	X		X	X
Average Unit Money	X	X		X	X
Other Money / Unit Money	X	X		X	X
Private Sector / Unit Money	X			X	X
Mitigation / Adaptation Ratio	X			X	
Average Amount Guaranteed			X		
Average Length of Guarantee			X		

INSIGHTS, CAVEATS AND STUDY LIMITATIONS

Although this analysis does not claim to be comprehensive, it is broad enough to indicate and suggest lessons and trends in climate financing. The available data were able to indicate trends in the following areas:

- *Institutions:* Who and how active are key players in climate finance suggests whether institutions are fulfilling their mandates and responsibilities;
- *Instruments:* Which instruments are preferred and how they are used highlight internal structures and the types of currently-accepted interventions;
- *Regions:* Where players are most and least active reveals correlations between income levels, vulnerability and climate finance activity;
- *Sectors:* A study of the support lent to renewable energy, energy efficiency, etc. points to the economic viability of each sector and to the sector focus of international policy; and
- *Private capital:* Prevailing practices in co-financing could be indicative of the priority accorded to mobilizing private resources and how they may be scaled up.

These trends can provide insights for the international policy debate in identifying best practices, suggesting ways forward and improving climate finance policy with respect to future areas of focus. This information will also enable future research to employ the same methodology and/or build on WRI's existing research for more in-depth insights.

In particular, WRI's search for relevant IBRD/IDA projects was facilitated by a listing that included summary features such as project size, investment type, date of approval and project status. GEF projects further allowed searches by project theme and implementing agency. The provision of project data along similar lines by other institutions would enable a better appreciation of their climate-relevant investment activities.

Nonetheless, WRI encountered several limitations—particularly surrounding data availability—that prevented further information being obtained. Examples of these data limitations include:

- *Coverage:* Publicly available data are not comprehensive in their coverage, and the sample analyzed by WRI was a subset of the actual climate-relevant activities undertaken by some of these institutions. These data are undoubtedly collected within the institutions but not necessarily made public – sometimes for reasons of confidentiality. An incomplete dataset may prevent a full analysis and lead to erroneous conclusions.
- *Causality:* To date, the institutions analyzed have not released information that would enable an assessment of whether the private sector financing was a direct outcome of public finance;
- *Terms:* Project details available to the public often exclude the terms of financing, which can be useful in showcasing the necessary conditions to fostering private sector support;
- *Additionality:* It is not clear how much of the public financing for these climate-relevant investments was diverted from Official Development Assistance, and how much private financing was additional to business-as-usual scenarios.

While computation of such data can often be complex, and its dissemination restricted under confidentiality clauses, institutions may consider releasing such information as this area of policy gains momentum, to enable more informed decision-making. This would also allow for better information sharing and lesson learning between institutions.

The existence of these limitations requires the important caveats to our analysis summarized below.

- *Results are not aggregated across agencies due to their differing priorities and capacities.* WRI's analysis also varies between institutions and their respective units as a result of data inconsistencies and differences in the purpose and nature of financing within each institution. Most notably, documentation for projects routed through the IFC and MIGA—the private sector-focused arms of the World Bank—contained fewer data points on financing terms in order to protect private sector client confidentiality. As a result, the MIGA and IFC analyses focus more on how specific financing instruments are used than on analyzing private sector participation.

- *Conclusions are most relevant for climate mitigation projects*. The projects analyzed were primarily focused on climate change mitigation. To date, the GEF, CTF, and WBG have not funded many adaptation projects, and adaptation projects do not currently generate direct financial returns. As a result, adaptation projects do not attract as much private sector interest. Going forward it will be important for these agencies, and other public sector actors, to explore where and how to increase private capital investment through adaptation-related finance.

- *Long-term private sector participation is not captured*. Due to data constraints and the challenge of attribution, WRI did not track private sector participation in each project over time or consider whether public participation in a project led to future increases in private investment flows into a certain sector. These broader outcomes are undoubtedly important criteria in determining the success of public funds in increasing private sector participation in projects.

- *WRI's data and analysis do not consider:*

  - Projects financed through carbon and forest-focused trust funds. Carbon and forest markets transactions utilize a unique set of financing tools adapted to policy measures like the Kyoto Protocol's Clean Development Mechanism and REDD+, which—though certainly relevant to international climate finance—are outside the scope of this analysis.

  - The WBG's International Center for Settlement of Investment Disputes (ICSID), because this entity does not undertake any financing or granting activities.

  - The environmental or financial performance of a project, because WRI's analysis focuses on the methods of funds disbursement and financing, rather than on the projects themselves.

  - Dropped projects (projects that were proposed or approved but have since been canceled) and those pending approval by the WBG.

  - Regional programs with no country focus (a negligible percentage of total projects), since limited data points are available on financing for these programs.

  - Projects with no co-financing, including activities executed by the recipient country.

ENDNOTES

1. There is a further lack of consensus on what constitutes climate finance, and various definitional issues still persist in assessing the amounts of climate finance provided. For instances, see "The US Fast Start Finance Contribution," available at http://pdf.wri.org/working_papers/ocn_us_fast-start_finance_contribution.pdf; and UN Secretary General's High-Level Advisory Group on Climate Change Financing. 2010. "Work Stream 4: Contributions from International Financial Institutions"; available at http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/Work_Stream_4_International%20Financial%20Institutions.pdf.

2. This sample filters out small projects with negligible benefits, projects without co-financing, etc., as explained later in this document. However, the sample size is large enough to be a good indicator of broader trends.

3. Carbon markets are not representative as 1) some of the world's biggest emitters do not operate in these markets, and 2) an emissions-reduction credit may be bought and sold numerous times in the markets, with no additional climate benefits

4. Private sector participation can include either project execution, providing capital directly to projects, and/or acting as a private sector financial intermediary that on-lends to projects.

5. UN Secretary General's High-Level Advisory Group on Climate Change Financing, "Work Stream 4: Contributions from International Financial Institutions."

6. Note that adaptation projects are typically smaller than mitigation projects and therefore projects with estimated costs below this threshold were more likely to be for adaptation purposes than projects with higher costs.

7. See, for example, "The US Fast Start Finance Contribution."

8. Due to differing classification systems, some projects that fulfilled the World Bank Group criteria but were not classified under the focal area of "Climate Change" by the GEF were also included.

9. Previous WRI reports have also included projects with ambiguous climate objectives in their methodology. See ibid.

10. The entire cost of the project was considered, although the recently announced joint-MDB approach for mitigation finance reporting aims to disaggregate mitigation activities from non-mitigation activities within each project (see African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank, World Bank, and International Finance Corporation. 2012. "Joint MDB Report on Mitigation Finance" (June); available at http://climatechange.worldbank.org/sites/default/files/MMF_2011_version_21.pdf).

11. WBG's IBRD/IDA project database categories and advanced search options were updated after WRI's research phase. New categories (e.g., guarantees, rainforest, and special financing) did not exist at the time of data collection.

12. Because private sector development benefits from more than just access to finance, the IFC advisory services provide advice, problem solving, and training to companies, industries, and governments.

13. MIGA's Small Investment Program facilitates investments in small and medium-sized enterprises; only projects of $10 million or greater were considered for this analysis.

14. Results available at: http://www.miga.org/projects/advsearchresults.cfm?srch=s&ptype=N&fromyr=2005&toyr=2011&dispset=10&sortorder=asc.

15. The study did not consider project costs in the case of MIGA guarantees.

16. In the IFC's case, details of non-IFC financing were not available.

17. Duration of guarantee in MIGA's case

18. Transformational impacts refer to the measured outcomes of the project (e.g., amount of carbon captured, emissions reduced, or energy saved)

19. The IFC and MIGA classification system can be found at http://www1.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/about+ifc/sectors, http://www1.ifc.org/wps/wcm/connect/534495804a803b32b266fb551f5e606b/Climate+coding+Definitions+guidance+note.pdf?MOD=AJPERES, and http://www.miga.org/sectors/.

20. Did not consider funding objectives for MIGA projects

21. For the most part, GEF projects did not have parallel funding from the IFC, which is mostly likely attributable to the different target segments financed by either entity. The GEF and CTF also did not work with MIGA.

22. World Bank Treasury, "Financing and Risk Management"; available at http://treasury.worldbank.org/bdm/htm/index.html; IFC Treasury, available at http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Finance; MIGA, "Guarantees Overview," available at http://www.miga.org/investmentguarantees/index.cfm.

23. In cases where debt financing was not further explained as A-, B-, or C-loans, the projects were not included in the table.

WRI'S CLIMATE FINANCE SERIES

WRI's Climate Finance series tackles a broad range of issues relevant to public contributors, intermediaries, and recipients of climate finance—that is, financial flows to mitigate greenhouse gas emissions and adapt to climate change impacts. A subset of this series, including this paper, examines how different types of public climate finance providers and intermediaries, or international finance entities like the proposed Green Climate Fund—can meet the significant investment needs of developing countries by mobilizing private sector investment. This subset focuses on how the public sector can finance and mobilize private sector investment and acknowledges the importance of overarching support for complementary climate change policies that create attractive market conditions domestically. Other publications in this series are available at http://www.wri.org/topics/climate-finance.

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ABOUT WRI

WRI focuses on the intersection of the environment and socio-economic development. We go beyond research to put ideas into action, working globally with governments, business, and civil society to build transformative solutions that protect the earth and improve people's lives.

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