



**The Role of National
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International Climate
Finance to Scale Up
Private Sector
Investments**

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Abstract

Significant investments are needed to support the global transition to a low-carbon, climate resilient future. Current finance flows fall short of global financing needs, and massive scaling up is needed to unlock additional financial resources and foster a sustainable investment pathway. Overcoming barriers to private sector investments is critical, and international climate finance can play a catalytic role in this regard. National development banks (NDBs) have a unique role in this context, both complementing and catalyzing private sector players. NDBs have a privileged position in their local markets, strong knowledge of and long-standing relationships with the local private sector, a good understanding of local barriers to investment, and opportunities and vast experience in long-term investment financing. This paper discusses the unique role that NDBs could play in scaling up private financing for climate change mitigation projects through the intermediation of international and national public climate finance in their respective local credit markets and the conditions that would be needed for them to be most effective. It draws from experiences in international climate finance and best practices, processes, and products of NDBs within the Latin American and Caribbean region.

JEL Classifications: G20, G21

Keywords: National development banks, NDBs, Latin America and the Caribbean, Climate change, Investment financing

Objectives and Caveats

The objective of this paper is to analyze the unique role national development banks (NDBs) can play at the national level to scale up private sector financing for climate change mitigation projects through the intermediation of international climate finance in their respective local credit markets. The paper will not address the role of NDBs could play to scale up financing climate change adaptation projects.

This paper was prepared for the following target audiences:

- Policymakers designing and implementing international climate finance mechanisms
- NDBs in developing countries that are interested in promoting and financing climate change mitigation investment programs and projects

The paper was prepared based on the following key sources of information:

- A survey undertaken on April 2012 to nine (9) National Development Banks from the Latin American and Caribbean region
- The database of ALIDE members
- Results and insights from a series of workshops and dialogues organized by the Inter-American Development Bank (IDB) in 2011–2012
- Existing literature on climate finance

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Table of Contents

Executive Summary	3
1. Introduction.....	10
2. Today’s Landscape of Climate Finance	13
2.1. Overview of Key Issues in the Climate Finance Landscape.....	13
2.2. Sources, Channels, and Mechanisms of Climate Finance.....	16
2.3. A Glimpse into the Future: The Green Climate Fund.....	21
2.4. Challenges in Climate Finance: A Mission for NDBs?	22
3. The Role of NDBs to Scale up Climate Finance	25
3.1. Introduction	25
3.2. The Conditions to Effectively Scale up Climate Finance	25
3.3. Unique Role of NDBs	27
3.4. Types of NDB Financial Instruments to Promote Private Finance and Scale up Investments.....	30
3.5. Roles and Instruments of NDBs to Promote the Effective Scaling up of Climate Finance.....	35
3.6. Overview of NDBs in the LAC Region	37
4. How NDBs Can Leverage Private Finance	42
4.1. Introduction	42
4.2. Definition of and Methodology for Calculating the Leverage Effect	42
4.3. The NDBs Leverage Factor.....	44
4.4. Leverage Effect by LAC NDBs	46
4.5. Case Study: NAFIN Leverages the Local Financial Market.....	48
AGF (UN Advisory Group on Climate Change Financing). 2010. “Report of the Secretary-General’s High-level Advisory Group on Climate Change. Financing.” New York, United States: United Nations.	55
Annexes.	63
Annex I: Carbon Offset Mechanisms	63
Annex II: A Detailed Overview of Important Climate Finance Channels and Mechanisms	65
Annex III: Challenges and Outcomes of the Green Climate Fund (GCF) Negotiations.....	87
Annex IV: Sample of NDBs’ Activities in Climate Finance and Access to International Climate Funds.....	89
Annex V: Case Studies of NDB Instruments in Climate Finance.....	99
Annex VI: Models of Leveraging.....	103

List of Tables, Figures and Boxes

Table 1: Synopsis of Channels and Mechanisms.....	17
Table 2: Examples of Mechanisms and Channels for International Climate Finance	18
Table 3: NDB Instruments to Address Needs to Enhance Effectiveness of Climate Finance.....	36
Table 4: Instruments Offered by Selected NDBs	39
Table 5: Sample of NDBs.....	47
Figure 1: Conditions for Effective Scaling up of Climate Finance	26
Figure 2: Key Features of National Development Banks	27
Figure 3: International and Domestic Green Finance Delivered by IDFC Members in 2011	38
Figure 4. The Leveraging Effect of the CTF-REFF and Nafin.....	49
Box 1: Defining “Climate Finance”.....	13
Box 2: National Development Banks	25
Box 3: NAFIN as Project Structurer	28
Box 4: FIRA as Risk Taker.....	29
Box 5: An Example of an NDB’s Use of a Grant Instrument	31
Box 6: An Example of an NDB’s Use of a Tier 1 Loan Instrument.....	32
Box 7: An Example of an NDB’s Use of a Tier 2 Loan Instrument.....	33
Box 8: An Example of NDBs’ Use of Equity Instrument	33
Box 9: An Example of NDB’s Use of Guarantee Instrument.....	34
Box 10: An Example of NDB’s Management of Funds	35
Box 11: Definitions of “Leverage”	43
Box 12: Comparison of MDB and NDB Leverage Factor	45

List of Acronyms

AFD	Agencia Financiera de Desarrollo de Paraguay
AGF	High-Level Advisory Group on Climate Change Financing
ALIDE	Association of Latin American Financial Development Institutions
BANCOLDEX	Banco de Comercio Exterior de Colombia S.A.
BANDESAL	Banco Multisectorial de Inversiones
BEDE	Banco del Estado del Ecuador
BNDES	Brazilian Development Bank
CDM	Clean Development Mechanism
CIFs	Climate Investment Funds
COFIDE	Corporación Financiera de Desarrollo
COP	Conference of the Parties to the UNFCCC
CORFO	Corporación de Fomento de la Producción de Chile
CTF	Clean Technology Fund
DFIs	Development Finance Institutions
DUIS	Sustainable Urban Development
ECA	Export Credit Agency
FAO	Food and Agriculture Organization of the United Nations
FINDETER	Financiera de Desarrollo Territorial
FINRURAL	Financiera Rural
FIP	Forest Investment Program
FIRA	Fideicomisos Instituidos en Relación con la Agricultura
FNMC	Brazilian National Fund on Climate Change
GCF	Green Climate Fund
GEF	Global Environmental Facility
GHG	Greenhouse Gases
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IDFC	International Development Finance Club
JICA	Japan International Cooperation Agency
KfW	German Development Bank
LAC	Latin America and the Caribbean
LFI	Local Financial Institutions
MDBs	Multilateral Development Banks
NAFIN	Nacional Financiera
NCRE	Non-Conventional Renewable Energies
NDBs	National Development Banks

RE	Renewable Energies
REFF	Renewable Energy Financing Facility
SMEs	Small and Medium-sized Enterprises
TC	Transitional Committee for the design of the Green Climate Fund
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
US\$	United States Dollars

Executive Summary

There is a need to scale up private sector investments in climate change activities, and international climate finance can play a catalytic role to make this happen.

Significant investments are needed to support the global transition to a low-carbon, climate resilient future. To this end, international climate finance is essential. Today, annual financial flows to support low-carbon, climate-resilient development activities in developing countries are in the range of US\$70 billion to US\$120 billion (Buchner et al., 2011; Clapp et al., 2012.). While this is good news, these amounts fall far short of global financing needs. By 2030, total annual additional investments that will be needed in developing countries to address climate change are estimated at between US\$140 billion and US\$175 billion (World Bank, 2010a). Massive scaling up is needed to unlock additional financial resources and foster a sustainable investment pathway.

Government resources cannot finance this transition alone, and fiscal austerity in developed countries has put increasing burdens on already constrained public budgets. Unlocking private sector capital will be essential to achieve large, transformational, and long-term impacts across all economies. However, significant questions remain about how to mobilize private investment in climate change activities, how to design risk-return arrangements that attract public and private capital, and ultimately how to align public and private investment incentives. International climate finance can play a catalytic role in this regard.

Barriers hamper private sector investments in climate change. The unique role of national development banks (NDBs) can help overcome some of the difficulties.

The private sector is prepared to take certain risks but is less comfortable with policy risk and activity- and country-specific barriers to investments needed for climate-friendly technologies and projects, which affect the risk-return profiles of investments. Public funds are essential for unlocking needed private climate finance by taking on the classes of risk that the

private market will not bear. National development banks (NDBs) play a dual role in this context, both complementing and catalyzing private sector players.

NDBs have a unique role and focus compared to other players, such as bilateral international agencies or multilateral development banks (MDBs). Their special knowledge and long-standing relationships with the local private sector put them in a privileged position to access local financial markets and understand local barriers to investment. Compared to commercial banks and investment funds, they have a greater potential to take risks than the financial intermediaries, providing long-term financing in local currency in their local credit markets.

Public financing from NDBs can be used to leverage private investment, contributing directly to the incremental cost of implementing low-carbon policies through two main activities:

- Increasing the demand for investments and financing in climate-friendly projects (pre-investment stage) by helping to address sector- and country-specific constraints, promote an appropriate and stable enabling environment for investment, build awareness and capacity to analyze and structure climate-related interventions, and bring projects and companies to a state of “investment readiness,” all of which will ultimately result in measurable environmental benefits.
- Providing the necessary incentives to mobilize the supply of climate-friendly investments from the private sector (investment stage) by offering financial instruments on adequate terms and conditions for these types of projects and by helping private investors and local financial institutions (LFIs) to understand and tackle the specific investment and financial risks and barriers that prevent private actors from engaging in green and climate-resilient projects.

NDBs use a variety of different financial and non-financial instruments that can promote private sector finance, and many of them already offer such instruments for climate change activities.

NDB activities and instruments can cover both demand and supply financing needs to mobilize climate finance and can thus leverage scale. An NDB can combine different sets of instruments to meet the needs of an investment project in its pre-investment stage (i.e., grants

and technical assistance) and in its investment stage (i.e., risk enhancements, funding subsidies, or other financial structures to entice private capital to a project).

All of the nine NDBs of the Latin American and Caribbean (LAC) region, representing one-third of the region's NDB assets and capital, and which were surveyed as part of this analytical effort, are involved in climate financing to varying degrees, with different instruments, and at diverse stages of readiness to participate in this area. Some NDBs have only recently become involved in these types of projects, while others have already accessed international climate funds from bilateral and multilateral entities. To incentivize green investments and address their specific financing needs, all of the selected NDBs have dedicated programs and toolboxes in place, comprising a variety of instruments to finance climate-related projects.

The toolbox of financial instruments at NDBs' disposal has great potential to leverage public and private resources, both because they can deploy instruments that other actors such as MDBs do not use and because of their unique role. NDBs have a variety of financial instruments available to facilitate climate investments. Since NDBs are closer to local financial institutions and can better understand the risks and barriers they face, their ability to leverage is equal to or potentially greater than that of MDBs for the same instruments.

Enhancing the role of NDBs could go a considerable way to filling the investment gap.

At the end of 2011, NDBs in the LAC region had outstanding assets of nearly US\$1 trillion and a capital base of US\$100 billion that, combined with their capacity to leverage resources, makes them unique players in scaling up private investments for climate change mitigation.

NDBs can play a more effective role in scaling up investments through international climate finance if they are better integrated and recognized and can strengthen their technical capacities to play an active role in climate finance.

NDBs have a high potential to intermediate and mobilize climate finance. Many NDBs in the LAC region are already piloting financial instruments and strategies in support of climate finance. However, some of them still need to be helped so that they can become actively engaged in climate change finance, either because they have not received a clear mandate from their respective governments or because they are at an early stage of institutional development. This may be particularly true with regard to new areas of financial practice, such as climate finance. In order for these players to more effectively scale up private investments in climate change mitigation activities, there is a need to:

- Enhance the coordination of relevant national and international climate finance actors in order to allocate international climate financing to support not only policy initiatives but also national private sector investment priorities, including:
 - creating clear processes to design one national climate strategy building on sector strategies by different ministries, leading to robust investment plans;
 - jointly preparing project pipelines with bankable projects; and
 - enhancing cooperation between UN agencies and multilateral and bilateral donors.
- Enhance the dialogue between national policymakers and NDBs to promote an active role of NDBs in delivering international climate financing, including:
 - using NDBs as mechanisms to manage and channel climate financial resources;
 - taking into account NDBs' experience and advice for the design and functioning of new climate financing mechanisms under design, such as the Green Climate Fund (GCF); and
 - supporting readiness strategies and internal capacity building efforts for NDBs to make them more proactive and effective in channeling and promoting climate finance.
- Build knowledge about best practices of NDBs in climate finance, to improve understanding of effective funding sources and channels and the catalytic potential of different instruments. In this context, NDBs can offer important lessons on various design features of the emerging GCF, including how to design the private sector facility, drawing on extensive experience with the private sector.
- Encourage NDBs to develop readiness strategies for international climate finance mobilization and intermediation, including:
 - building internal capacities and knowledge about international climate funds; and

- strengthening their capacities to measure, report, and verify the impacts of interventions, including the measurement of environmental benefits and the amount (and type) of private financing leveraged.

Because NDBs have extensive knowledge on opportunities and barriers for investments in their countries, a long-standing relationship with the local private and public sectors, and a development mandate, decision makers designing the international climate change finance architecture should consider the particular experience of these financial actors in developing effective mechanisms for long-term climate change investment financing on the ground.

1. Introduction

Climate finance has become a key topic in recent international climate negotiations, resulting in a significant commitment of US\$100 billion per year by 2020 from developed countries to collectively support developing countries' transition to a low-carbon, climate-resilient future. These financing objectives were set forth in the Copenhagen Accords at the 15th Conference of the Parties (COP) in 2009, and were included in the United Nations Framework Convention on Climate Change (UNFCCC) following COP16 in Cancun in 2009.

By 2030, total annual additional investments needed in developing countries to address climate change are estimated at between US\$140 billion and US\$175 billion.² Therefore, financial resources have to be scaled up significantly.

International climate finance has a key role to play in addressing this development challenge, and all players need to join forces. Public financial resources are far too scarce to finance this transition, even more so in times of tightening fiscal constraints in industrialized countries. The bulk of financing is expected to come from the private sector.³

Mobilizing the private sector is essential to ensure large, transformational, and long-term impacts in the economies. Since the private sector has most of investment needed to scale up climate finance, its mobilization promotes a potential transformation.⁴ Moreover, an increased private sector engagement will reduce the need for reliance on public financing in the long run, be it international or national.

In practice, aligning public and private financing incentives presents a number of challenges. While until recently national development banks had gotten little attention, there is growing awareness about their unique role in promoting and catalyzing private finance to

²The World Bank's 2010 World Development Report notes the related upfront financing costs for the implementation of renewable energy infrastructure and energy efficiency of US\$265 to US\$565 billion above business-as-usual investment needs, and annual adaptation financing in the range between US\$30 to US\$100 billion.

³ See, for example, BNEF (2011) and AGF (2010a).

⁴ Public funds alone cannot finance the transition, particularly in times of fiscal austerity in developed countries. Corfee-Morlot et al. (2009), Buchner et al. (2011), and Clapp et al. (2012) confirm that the private sector remains the main source of climate finance and as such will be instrumental in harnessing sufficient resources to shift development onto cleaner pathways over time. As Della Croce et al. (2011) report, with their US\$28 trillion in assets, pension funds, along with other institutional investors—have the potential to play a significant role in financing climate-related interventions. Additionally, TC (2011a), de Nevers (2011), and Sierra (2011) call for private sector mobilization and engagement.

mitigate climate change in developing countries. NDBs can play a potentially crucial role in facilitating climate investments and delivering climate finance directly or leveraging private capital. Their focus is unique, particularly compared to other national public institutions and international financial institutions. Indeed, NDBs are in a privileged position in their local credit markets to promote the financing of innovative private sector activities, given a number of characteristics that are commonly associated with them. NDBs have a unique mandate to support the improvement of financial conditions in local financial markets by crowding in private financial intermediaries into new and innovative areas of investment, using appropriate financial and non-financial instruments. As a result, they are able to leverage private capital to finance investment projects. Further, NDBs:

- can, in some instances, promote market development;
- have long-standing relationships with local private financial institutions and hence understand the risks and barriers that they confront when financing underserved sectors; and
- can aggregate small-scale projects by adopting a portfolio approach when assessing credit risk and streamlining the application process to minimize transaction costs, thus encouraging LFIs to participate.

NDBs are already playing a key role in climate change finance, even though it is not yet fully acknowledged. In 2011 alone, a selected number of NDBs financed around US\$89 billion in programs addressing climate change.⁵ In the Latin America and the Caribbean (LAC) region, where NDBs have a long tradition and experience in financing private sector investment projects, they could play a vital role in mobilizing private sector investments. NDBs seem to understand better than many other players the conditions on the ground for long-term investment. Their

⁵ Ecofys-IDFC (2012). This report refers to the International Development Finance Club (IDFC), a new network of renowned national and sub-regional development banks with total assets of more than US\$2.1 trillion. The members of the club established climate financing as the central focus of their 2012 development agenda. For more information see <http://www.idfc.org/>. Ecofys-IDFC (2012) reports that IDFC members in 2011 made new green finance commitments of about US\$89 billion, 83 percent of which was invested in green energy and mitigation projects. Section 3.6 provides more details on the report. See Ecofys-IDFC (2012) for additional information. In addition, in late 2011, the World Federation of Development Financing Institutions issued the Karlsruhe Declaration, a set of statements to the Rio+20, indicating that the WFDFI will “continue to use, through its member-institutions, their finance and investment resources and skills as levers to promote and pursue sustainable finances policies, practices and programs to alleviate the effects of climate change and other environmental and social problems.” For more information see <http://www.wfdfi.org.ph/>.

public nature, their legitimacy in the institutional landscape, their strong engagement with the private sector, and the use of a variety of financial and non-financial tools, combined with their understanding of local circumstances and sectors, suggest that NDBs have the natural ability and competency to play a fundamental role in climate finance. Yet, more evidence is needed to understand the conditions and the institutional capacities required for NDBs to become effective intermediaries in climate finance.

This paper aims to contribute to the existing knowledge about the role that NDBs can play in channeling and leveraging climate finance and the conditions that would be needed for them to be most effective. It addresses one building block needed to ensure large, transformational, and long-term impacts in their economies. Specifically, its objective is to analyze the unique role that NDBs could play in scaling up private financing for climate change mitigation projects through the intermediation of international and national public climate finance in their respective local credit markets.

A better understanding of this role will allow NDBs to develop a proactive strategy for international climate finance, in terms of both accessing and intermediating finance from a broader range of sources, and influencing the operational design of future international climate finance delivery mechanisms. The study will also inform policymakers who are designing the international climate finance architecture about the potential for NDBs to scale up private sector investments for climate finance, identifying the basic requirements to maximize this potential.

The paper is organized as follows: Section 2 briefly describes today's landscape of climate finance, identifying the main gaps and challenges in scaling up investments from the private sector in climate change mitigation and the role that NDBs could play in this regard. Section 3 discusses the advantages of NDBs in scaling up climate finance and, based on the Latin American context and experience, examines the nature and types of financial instruments currently used by NDBs to that effect. Section 4 focuses on the NDBs' role and capabilities in leveraging and intermediating climate finance, drawing on empirical evidence from existing experience. Finally, Section 5 provides some concluding remarks on the unique role of NDBs in scaling up private finance, and offers recommendations on how to further spur action by NDBs in international climate finance.

2. Today's Landscape of Climate Finance

2.1. Overview of Key Issues in the Climate Finance Landscape

A comprehensive picture of climate finance improves understanding of how much and what type of finance is being provided to advance action on low-carbon, climate-resilient development; how the different types of support correspond to countries' needs; and whether financial resources are being spent productively. This understanding is critical to highlight the gaps and key issues in today's climate finance landscape, providing an indication of solutions needed to address global climate change.

Box 1: Defining "Climate Finance"

There is no internationally agreed definition of what constitutes climate finance, or a climate project.ⁱ This circumstance poses problems to understand the nature and scale of financial flows. Following Corfee-Morlot et al. (2009), Buchner et al., (2011)—the first comprehensive overview of the climate finance landscape—considers climate finance as "climate-specific finance," referring particularly to capital flows that target low-carbon and climate-resilient development. The objectives and outcomes of these flows consist both in direct and indirect greenhouse gas mitigation or climate change adaptation measures. Indirect measures, for example, support capacity building. "Climate-specific" finance may be either international public or private financing flows, and thus may be either concessional (public) or non-concessional flows, where the latter concerns private and some forms of public finance flows. It also heavily involves domestic public or private financial flows.

This definition of climate finance excludes a broader set of capital flows, typically referred to as "climate-relevant" finance (see Corfee-Morlot et al. [2009] and Buchner, Brown, and Corfee-Morlot [2011]), which target development in key emitting sectors (such as power production and other energy supply, industry, agriculture and forestry, transport, water) or sectors affecting the vulnerability to climate change (for instance, energy, forestry and agriculture, water, and health). These flows may influence, directly or indirectly, countries' emissions and/or vulnerability, but with possibly negative implications on climate change (that is, by increasing emissions).

ⁱ For an in-depth discussion of this issue and the emerging meaning of climate finance, see Clapp et al. (2012), Buchner et al. (2011), Buchner, Brown and Corfee-Morlot (2011), and Corfee-Morlot et al. (2009).

Drawing on data from a wide range of sources, a recent study assesses the current status of the climate finance landscape, mapping its magnitude and nature along the life cycle of financial flows, that is, the sources of financing, the intermediaries involved in distribution, financial instruments, and final uses (Buchner et al., 2011). This first snapshot of the current climate finance landscape provides a number of noteworthy insights:⁶

- **Scale.** Total annual climate financial flows, predominantly from developed to developing countries, are between US\$77 billion and US\$115 billion, averaging US\$97 billion.⁷ This amount falls far short of the US\$100 billion promised by developed countries in the Copenhagen Accord. Not all of the US\$97 billion is additional to the climate financing available prior to the Copenhagen Accord; a significant amount was already being provided prior to the summit. In addition, financial flows are fragmented, and larger amounts are needed. Climate finance needs to be deployed much more, financing not only large-scale, high profile projects, but also small-scale projects, which can be replicated.
- **Private finance.** Public climate finance has been at the center of discussions, but its scale is restricted. Today, private financing already exceeds public finance, ranging between US\$37 and US\$72 billion, versus US\$21 billion. Private capital investments are thus the most important source of climate finance. There is a need for a better understanding of how to best catalyze private finance.
- **Local knowledge.** Bilateral and multilateral financial institutions play a key role in distributing climate finance, accounting for approximately 40 percent of the total. Most climate finance is not distributed directly by governments to end users, but through government agencies and development banks. Dedicated climate funds channel a small but growing portion of the financing. This suggests that a better understanding of the country's context, the clients, and local ownership is important in order to accelerate the allocation of funds.
- **Coverage.** The lion's share of climate finance (95 percent) is used for mitigation measures in emerging market economies; only a small share goes to adaptation

⁶ For a detailed discussion of these findings, see Buchner et al. (2011).

⁷ This range is in line with recent estimates by the OECD, which put total North-South climate finance in the range of US\$70 to US\$120 billion per year (Clapp et al., 2012). Going beyond a North-South focus, Bloomberg New Energy Finance estimates that US\$257 billion was spent on global renewable energy investment in 2011, with US\$168 billion spent in developed and US\$89 billion in developing countries (FS-UNEP and BNEF, 2012).

measures. This calls for a better balance between mitigation, adaptation, and deforestation, as well as between expenditures in middle- and low-income developing countries.

- **Toolbox.** A variety of instruments are available to distribute climate finance. Most climate finance (76–90 percent) can currently be classified as investment rather than support for policy incentives, carbon offsets, and grants. It is essential to understand which channels and instruments are most efficient in delivering climate finance, and what terms could best address existing risks and barriers.
- **Monitoring, reporting, and verification (MRV) of environmental results.** Robust MRV systems are paramount to track how funds are being spent and whether environmental results are being achieved. It is also critical to identify where progress could be made and to demonstrate accountability.
- **Effectiveness.** Given the range of funding mechanisms and channels and the absence of comprehensive, rigorous MRV systems, there is a need for a greater understanding of how effectively climate financial flows are being used. The fragmentation of climate finance also puts a burden on project developers, due to the variation in the conditionality of various finance vehicles. This indicates that there is scope for increasing the effectiveness of international climate finance.

From the preceding issues, two insights loom: to ensure broad, transformational, and long-term impacts in the economies, a significant scale-up of climate finance is needed, which in turn requires the mobilization of private investment. Through their mandate, NDBs can engage the private sector, and LFI and can help companies and projects absorb climate finance. They can take risks that the private sector may not be able to bear and finance long-term investments.⁸ Yet, there is a scarcity of comprehensive information on NDBs' activities and, more generally, on flows from developing countries (i.e., South-South flows and domestic flows),⁹ including

⁸ Sections 3 and 4 discuss this aspect in more detail.

⁹ BNEF (2012) and Ecofys-IDFC (2012) provide recent insights on the volume of these flows. The former estimates South-South flows from a selection of development finance institutions in the amount of US\$3.9 billion in 2011. Ecofys-IDFC (2012), instead, estimates domestic climate flows to be in the amount of US\$44 billion, representing the amount of green finance sourced by development finance institutions based in non-OECD countries and spent domestically, in the respective home country of the institutions. The two reports adopt different methodologies and coverage of institutions. For details see BNEF (2012) and Ecofys (2012).

policy support, direct financing, and co-financing of internationally supported projects). Without such data, it is difficult to strengthen the role that NDBs can play in accessing and channeling climate finance flows.

2.2. Sources, Channels, and Mechanisms of Climate Finance

Current climate finance originates from many sources. The dominant source is the private sector, which provides between US\$37 billion and US\$72 billion per year (Buchner et al., 2011).¹⁰ Domestic public budgets contribute around US\$21 billion a year, and carbon offsets flows and voluntary/philanthropic contributions provide the remaining US\$2.2 billion per year and US\$0.5 billion per year, respectively.¹¹

A closer look at existing channels and mechanisms of climate finance helps to better understand how money is currently being distributed on the ground and absorbed, as well as to shed light on the current and potential role of NDBs. The main channels and mechanisms of climate finance include bilateral and multilateral financial institutions and agencies, climate funds, and carbon funds. Table 1 provides a synopsis of the channels and mechanisms, and Table 2 explores the most important ones. Annex I offers insights about the carbon market.

¹⁰ The lower bound is a top-down estimate of “green” Foreign Direct Investments (FDI) in developing countries, based on UNCTAD World Investment Report 2010. The upper bound is a bottom-up estimate of renewable energy projects in developing countries, based on Bloomberg New Energy Finance database.

¹¹ For a detailed discussion, see Buchner et al. (2011).

Table 1: Synopsis of Channels and Mechanisms

	Bilateral channels and mechanisms	Multilateral channels and mechanisms	Climate funds
Description	<ul style="list-style-type: none"> - Bilateral financial institutions (BFIs) and bilateral funds are institutions or funds primarily belonging to or governed by individual countries.¹² - Includes bilateral development finance institutions (DFIs), and development cooperation departments and agencies of individual countries. Also includes NDBs, which typically invest domestically but increasingly support international cooperation. 	<ul style="list-style-type: none"> - Multilateral financial institutions and funds have multiple governing members, including both borrowing developing countries and developed donor countries.¹³ - Includes multilateral development banks (MDBs), such as the World Bank and the Inter-American Development Bank; regional development banks; and UN agencies. 	<ul style="list-style-type: none"> - Recently, a number of national, bilateral, and multilateral organizations have set up climate-specific funds. - They are usually managed “off balance sheet,” with one or more national, bilateral, or multilateral organizations providing trustee and administrative services. - Funds tend to have finite lifetimes and a specific sectoral focus, such as mitigation, REDD+, adaptation, etc. Most of them are fairly new and have not yet disbursed large volumes of finance. They can be grouped into four categories: <ol style="list-style-type: none"> 1. Global donor funds established by UN agencies, including the UNFCCC, the World Bank, the UNDP, the UNEP, and the FAO (i.e., the Global Environment Fund and the Climate Investments Funds); 2. Global donor funds managed by EU Institutions, such as the Global Energy Efficiency and Renewable Energy Fund; 3. Regional recipient funds managed by regional development banks, BFIs, and NDBs, such as the Congo Basin Forest Fund; and 4. National recipient funds managed by BFIs and NDBs, such as Brazil’s National Fund on Climate Change.

¹² This definition follows that of the World Bank, among others: “Multilateral and Bilateral Development Agencies,” available at: <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,contentMDK:20040612~menuPK:41694~pagePK:51123644~piPK:329829~theSitePK:29708,00.html>.

¹³ Ibid footnote 11.

Capitalization	<ul style="list-style-type: none"> - Public budgets of donor countries. - Supplemented by own funds of bilateral banks and money raised on global capital markets.¹⁴ 	<ul style="list-style-type: none"> - They raise money from a variety of sources, including capitalization from governments and borrowing programs and income from loans. - Finance raised by MDBs on capital markets can come from a mix of public and private investors. 	<ul style="list-style-type: none"> - These funds are typically multi-donor, and, in addition to the money pledged, many of them leverage significant sums of finance, frequently from MDBs and BFIs.¹⁵
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Table 2: Examples of Mechanisms and Channels for International Climate Finance

	Mechanism / Channel	Key features	Capitalization	Funding instruments
Global donor funds	Global Environment Facility (GEF)	<ul style="list-style-type: none"> - Financing mechanism of the UNFCCC for the last 15 years. Manages three funds for mitigation and adaptation activities. Moved from a project-based approach to medium- to long-term programmatic approaches to achieve large impacts. - Benefits all developing country parties to the UNFCCC. - Executed mainly through MDBs and the UN. 	Mainly public donor contributions	Mainly grants, and provides for concessional lending in some cases
	Adaptation Fund	<ul style="list-style-type: none"> - Operational since 2008 with the aim of financing adaptation activities. - Benefits all developing country parties to the UNFCCC, with priority to most vulnerable ones. - Executed through accredited national or international entities. 	Levies carbon credits (from CDM). Public donor contributions	Grants

¹⁴ The AFD (French Development Agency), for instance, complements the grant money it receives from the French government, the European Commission and international philanthropic organizations with funds raised in capital markets, through bond issues and private placements. To supplement resources provided by the German federal budget, the KfW raises funds on the capital market.

¹⁵ For example, the Global Environmental Facility (GEF) reports that from its inception to June 2011, it has leveraged additional investments of approximately US\$21.8 billion, while investing US\$3.8 billion in climate change mitigation, adaptation, and enabling activities (UNFCCC, 2011).

	Climate investment funds (CIFs)	<ul style="list-style-type: none"> - Approved in 2008 as a mechanism to pilot transformational low-carbon and climate-resilient development. Manages two funds and has a sunset clause.¹⁶ - Pilot programs in 48 countries with 200 projects. - Executed through MDBs. 	Public donor contributions	Grants and concessional lending
Multilateral banks	Multilateral development banks (MDBs)	<ul style="list-style-type: none"> - Most MDBs, such as the World Bank, have dedicated climate funds and trust funds. In addition, many are earmarking their resources to promote activities to address climate change.¹⁷ - MDBs benefit their own constituencies. 	Mainly member contribution	Grants, lending and concessional lending, guarantees, bond issues, and carbon funds
Bilateral channels	Bilateral development finance institutions	<ul style="list-style-type: none"> - Main delivery channel for rapid financing. - Allocation of funds decided through bilateral government negotiation - Predictable and flexible delivery. - Eligibility to participate in funds and specific conditions/criteria differ from one entity to the other. 	Government budget contributions and auctioning of carbon credits	Grants; lending and concessional lending; carbon funds

¹⁶ The CIFs' design includes a sunset clause, which is a statutory provision to enable closure of funds once a new financial architecture has become effective under the UNFCCC regime (see <http://www.climateinvestmentfunds.org>).

¹⁷ For example, a goal of the Inter-American Development Bank is that 25 percent of its portfolio should be allocated to environmentally friendly activities.

To understand the requirements that international climate finance imposes on any entity that aims to become an active climate-finance intermediary, it is helpful to explore the operational modalities and criteria of specific funds or funding mechanisms and the corresponding capacities needed (see Annex II for an in-depth look at selected examples under all categories).

A glance at these examples in the existing landscape shows that access, eligibility criteria, and monitoring and evaluation frameworks currently differ considerably among funds, and the private sector rarely plays a significant role. The proliferation of approaches and criteria entails time, effort, and money for the actors involved in intermediating climate finance. Harmonization and better coordination in this area are needed.

More recent funding mechanisms have also included measures for improvement. To mobilize the private sector, climate investment funds (CIFs) include private sector representatives in their governance structure as observers, and the private sector is able to gain access to funding through the private sector windows of MDBs. Examples are the private sector window of the Inter-American Development Bank (IDB) and the World Bank Group's International Finance Corporation (IFC), two CIF implementing entities.

Emerging funds reflect the increasing desire on the part of recipient countries to have enhanced ownership, or direct access, to climate finance, implying flexibility in fund management and lower transaction costs, as well as responsibility for delivering results. One example is the Adaptation Fund, which gradually enables national implementing entities to access project funds directly, suggesting a more prominent role of national banks and agencies in the future (see Table 2).

The Green Climate Fund (GCF), the most prominent fund being developed, embodies both private sector engagement and direct access. The operational modalities of the GCF are still under development, including how it will be capitalized and which instruments it will provide. This suggests that there is a window of opportunity to influence its operational design. NDBs have experience in both dimensions, since they understand private sector needs and constraints, and are in the business of intermediating financing for private sector investment projects.

1.1. A Glimpse into the Future: The Green Climate Fund (GCF)

The Green Climate Fund (GCF) was established as part of the Cancun Agreements, reached in December 2010. Although the volume of financing to be channeled through the GCF is unclear, the GCF was conceived as the main international financing mechanism to support developing countries' action to move towards a low-carbon, climate-resilient future, and the vehicle through which some of the current gaps of the climate finance landscape will be filled. Notwithstanding disagreement on many aspects and some practitioners' doubts about its viability,¹⁸ the proposal put forward to the COP 17 in Durban led to the approval of a decision whose main aspects are summarized in Annex III.

Despite the adoption of the governing framework of the GCF in Durban, negotiations on its operational aspects are far from over. Several issues that were left partially unresolved will have to be addressed by the GCF's board over the course of 2012 and 2013.¹⁹

The window of opportunity to feed lessons from financing practices into the design of the GCF is a unique occasion for a variety of financial actors to influence the future of climate finance. In the spirit of ensuring country ownership—a guiding governing principle for the GCF—NDBs can offer important lessons on how to operationalize the fund, ensure an effective irrigation of resources to a broader spectrum of stakeholders, promote sectoral and programmatic approaches, and encourage the use of private investment. Thus, the experiences of the NDBs on the ground can be particularly useful for the design of the GCF's private sector facility.²⁰ The activities of NDBs as experienced players in channeling long-term financial resources to private actors suggest that there is a strategic fit for them to take on a stronger role in accessing and intermediating GCF and other international climate finance resources and in promoting the scaling up of private investment in their respective local credit markets.

¹⁸ See, for example, BNEF (2011).

¹⁹ The official website of the GCF, <http://gcfund.net/home.html>, provides more information on key issues and next steps related to the design of the fund.

²⁰ In December 2011, IDFC members proposed the so-called Smart Partnership for the GCF, pledging their support, technical expertise, and knowledge for the design and governance of the fund. In addition, they highlighted their competitive advantages in leveraging, intermediating, and delivering resources on the ground to end users, hence offering to serve as accredited implementing entities of the fund to enhance GCF effectiveness. For additional information, see: <http://www.idfc.org>.

2.4. Challenges in Climate Finance: A Mission for NDBs?

Addressing the challenges of climate change in developing countries requires a massive scaling up of annual investments in mitigation projects. While the concessional terms of international public climate finance could play a key role in catalyzing additional private and public finance for climate change mitigation projects, its implementation on the ground has been difficult. Indeed, while in the LAC region a total of US\$930 million in international climate finance was approved between January 2004 and October 2011, only US\$333 million of the aforementioned amount has been disbursed (Caravani et al., 2011). In addition, international climate finance funds have not been successful in promoting larger, programmatic approaches that leverage private investments to the scale needed.²¹ NDBs could play a crucial role in enhancing the effectiveness of international public climate finance on the ground by ensuring that it results in broader transformational programs and by doing what they do best, namely leveraging private sector investments. In subsequent sections, the paper will explore in more detail how NDBs could address this challenge.

2.4.1 Promoting the Scaling Up of International Climate Finance

Although most providers of international climate finance increasingly recognize the need to achieve scale and transformational impacts through programmatic and sectoral approaches to climate change mitigation, two main challenges will have to be overcome in order to scale up and achieve larger impacts. First, programmatic or sectoral approaches will demand not only an adequate and stable legal and policy framework that encourages private investment, but also specific incentives to encourage private investors and financial institutions to promote and finance these projects. Experience to date shows that most international climate funds have been allocated to national governments to address existing legal and policy constraints, with few resources being allocated to promote actual private investment on the ground. Second, programmatic or sectoral approaches entail high coordination and transaction costs (since several relevant actors need to be coordinated and the programs would need to be designed to

²¹ Among various global assessments, one of the most important include an analysis and recommendations to decision makers undertaken by the UN's High-Level Advisory Group on Climate Change Financing (AGF), a group of experts tasked by the UN General Secretariat to develop practical proposals on how to significantly scale up financing for mitigation and adaptation measures in developing countries (see AGF, 2010a).

demonstrate results), which are not easily borne by private sector promoters and financiers. In short, coordinating and supporting entities that have the capacity to interact with various relevant actors and can, at the same time, provide the necessary technical backstopping for project development and financing are key to the success of this approach.

NDBs have various characteristics that can play a key role in supporting programmatic or sectoral approaches. The respective governments mandate the NDBs to provide long-term financing to sectors that promote economic development and growth, particularly those that are underserved by private financing. They also can aggregate small-scale projects by adopting a portfolio approach when assessing credit risk and streamlining the application process to minimize transaction costs, thus encouraging LFIs to participate. Finally, they can develop strategies, such as project incubators and innovative and catalytic financial instruments, which could induce the private sector to finance sectoral projects that otherwise would not be financed due to real or perceived barriers and risks. As private financial institutions become engaged in financing these types of projects, their potential profitability will become apparent, making them more prone to participate in the future at market conditions.

2.4.2. Leverage Low-Emission Investments from the Private Sector

In the international climate finance landscape, the amount of private capital in circulation today exceeds the amount of available public financing. While there is broad consensus on the need to leverage private sector involvement, international climate finance has not yet been able to mobilize private financing for climate change investment projects at the scale needed.

A number of barriers are responsible for this situation. The private sector is prepared to take only certain risks. Private actors are less familiar and comfortable with policy and institutional failures as well as activity-specific and country-specific barriers to entry that affect the risk-return profiles of investments. The absence or weakness of domestic capital markets in developing countries and other related risks increase uncertainty for the private sector, and other market imperfections, which cannot always be resolved through local regulation, worsen the situation.²²

²² For instance, currency risks or the fact that there is often no easy market/grid access for low-carbon technologies (see, for example, UNEP-FI [2012b]).

Public funds, including international climate finance, are key to unlocking private climate finance by taking on the types of risks that the private market will not bear and in assuming tailored ownership interest where risks can be managed more effectively than in the private sector, such as regulatory risk or risks that are more perceived than real (e.g., demonstration of a proven technology). To date, many large sectoral climate change mitigation programs have paid scant attention to creating incentives for private sector participation. While there is a strong push for public-private partnerships, the few available experiences are fraught with problems related to sharing risks and profits between private companies and government, and costs incurred by consumers. In addition, there is uncertainty about how best to leverage, how to quantify its extent, and how to achieve an effective balance between public and private capital. Issues regarding state aid also need to be carefully considered in the context of world trade rules.

NDBs have a dual role in this context, complementing and catalyzing private sector players. Their knowledge and long-standing relationship with the private sector puts them in a privileged position to understand local barriers to investment, allowing them to assemble the financing package tailored to the needs of domestic investors. Apart from providing financial and non-financial instruments to directly engage and mobilize the private sector, they can also act as guarantee mechanisms for investments and market creation, offering additional incentives for the private sector to increase its investment. Compared to commercial banks and investment funds, they are better able to take risks that stimulate long-term investment.

2. The Role of NDBs to Scale up Climate Finance

2.1. Introduction

This section examines the conditions required for the effective scaling up of international and national climate finance using NDBs as intermediaries. Describing the potential roles played and instruments offered by NDBs in support of climate finance, the section gives current examples of NDBs' initiatives in this area.

Box 1: National Development Banks

NDBs are government-backed, sponsored, or supported financial institutions that have a specific public policy mandate. NDBs come in many different shapes and sizes, and there is no one single or typical operating model. NDBs can differ in terms of ownership structure, financial objectives, policy objectives (special purpose or multi-functional), supervisory requirements, and financial instruments.

Source: Smallridge and de Ollouqui (2011).

Within the LAC region, NDBs are already playing an important role in climate finance. This is evident from the results of a survey of members of the Latin American Association of Development Financing Institutions (ALIDE)²³ between April and July 2012. The survey focused on nine NDBs involved in climate financing at different stages of institutional development. These banks represent over one-third of the region's NDB assets and capital. This sample includes the largest NDBs in the region by assets, capital, and annual business volume to illustrate how NDBs are operating in the LAC region. Annex IV summarizes information on the nine banks under review. Finally, this section looks at the capacity needs and capital available, as well as opportunities to strengthen and enhance NDBs to make them more effective players in climate finance.

2.2. The Conditions to Effectively Scale up Climate Finance

Public finance from NDBs can be used to contribute directly to the incremental cost of implementing low-carbon policies through two main activities:

- Increasing the demand for investments and finance in climate friendly projects (pre-investment phase) by addressing sector- and country-specific constraints, promoting an

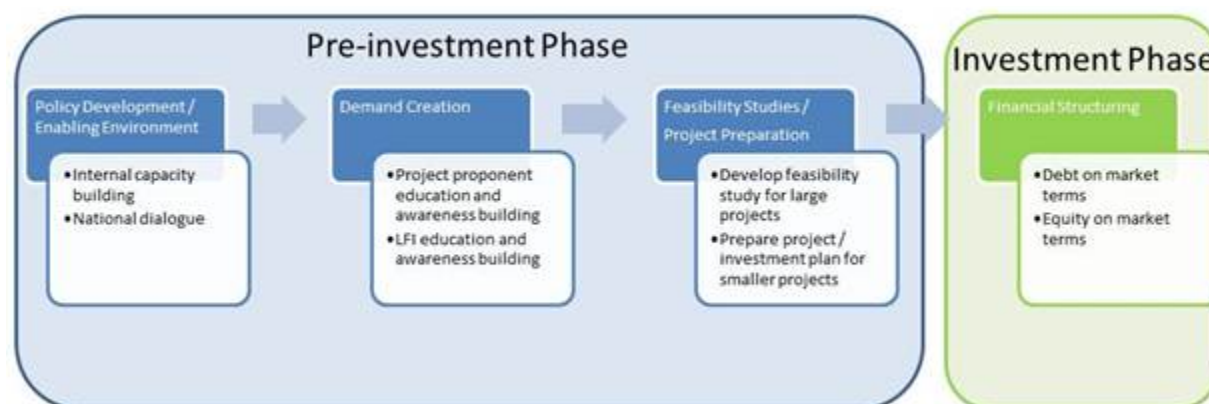
²³ Asociacion Latinamericana de Instituciones Financieras para el Desarrollo; for more information see: <http://www.alide.org.pe/>.

appropriate and stable enabling environment for investing, building awareness and capacity to analyze and structure climate-related interventions, and bringing projects and companies to a state of investment readiness, all of which will ultimately result in measurable environmental benefits.

- Providing the necessary incentives to mobilize the supply of climate-friendly investments (investment phase) from the private sector by offering financial instruments on adequate terms and conditions for such projects, and by supporting private investors and LFI in understanding and tackling the specific barriers and risks that prevent private actors from engaging in green and climate-resilient projects.

Scaling up investment requires increasing the demand for climate finance and encouraging the supply of climate finance. Figure 1 depicts the climate finance needs on both the demand and supply sides in the pre-investment and investment phases.

Figure 1: Conditions for Effective Scaling up of Climate Finance



Source: Authors' elaboration.

The focus of the pre-investment phase is to address the demand barriers by creating an enabling business environment conducive to making climate-related investments, as well as to help motivate, prepare, and educate the project proponents to undertake the investments. During the investment phase, the needs are capital—both debt and equity. By understanding and tackling the specific investment and financial barriers that prevent private actors on both the demand and

supply sides to engage in green and climate-resilient projects, significant progress can be made toward closing the gaps and hence supporting the scaling up of climate investments.

2.3. Unique Role of NDBs

NDBs have a privileged position in their local markets. Given a number of characteristics commonly associated with them, they can play a potentially crucial role in facilitating climate investments and delivering climate finance directly or leveraging private capital. Figure 2 highlights the various features of a typical NDB that make it well suited to the requirements of climate finance.

Figure 2: Key Features of National Development Banks



Source: Authors’ elaboration.

- i. **Development mandate:** NDBs are mandated by their respective governments to provide long-term financing to sectors that promote a country’s economic development and growth, particularly to projects or sectors of the economy (or state-of-the-art technologies) that are underserved by private sources of finance.

ii. **Public sector entity:** NDBs are part of the public sector, and hence can interact with different government agencies and can administer non-reimbursable budgetary resources granted by those public sector actors to support national or subnational

Box 2: NAFIN as Project Structurer

National Financiera (Nafin), in Mexico, has established itself as an innovator, incubating novel and catalytic financial instruments to support local micro, small, and medium enterprises to maximize their business opportunities. Section 4.4 provides an example of NAFIN's approach.

priority programs, including climate change mitigation investment projects promoted by private sector actors. Moreover, NDBs have the ability to influence policy directly, bringing relevant inputs to policymakers about impacts and implementation of various policy options because of their involvement and interaction with the financial and non-financial private sectors. This role is particularly important in contributing to the creation of the necessary conditions to scale up climate investments.

iii. **Financial institution:** NDBs are in the business of financing and risk taking, particularly in support of long-term investments. Indeed, NDBs are first and foremost financial institutions, often under the same bank supervision rules in their countries as commercial banks.

iv. **Mobilizer:** It is typically not in the nature of NDBs to compete. They are expected to complement and not “crowd out” private financial intermediaries, but rather “crowd” them “in” by providing appropriate financial and non-financial instruments in order to engage and catalyze private sector players. This role is particularly relevant for leveraging private capital.

v. **Project structurer:** The NDB can, in some instances, play a role to promote market development through the provision of additional resources, such as technical assistance and training to project developers, small and medium-sized enterprises (SMEs), and others to create the demand for financing by helping to develop and structure projects and

programs. They also can create financing packages with terms and conditions that are adequate (and appealing) enough to satisfy local project developers' needs, taking into account local market specificities.

- vi. **Risk taker:** NDBs have long standing relationships with local private sector financial institutions and hence understand the risks and barriers that these institutions confront when financing underserved sectors. Moreover, as risk takers, NDBs can assume certain project risks that private sector entities cannot or will not take, and therefore can draw incremental private capital into projects.

Box 3: FIRA as Risk Taker

FIRA (Trust Funds Bank for Rural Development) is a Mexican second-tier development bank. It has historically acted as risk taker, offering guarantee products to Tier 1 banks and other financial intermediaries to share the risk of lending, hence facilitating access to credit to local private investors.

- vii. **Innovator and aggregator:** NDBs can aggregate small-scale projects by adopting a portfolio approach when assessing the credit risk and streamlining the application process to minimize transaction costs, thus encouraging LFIs to participate. NDBs can develop and incubate innovative and catalytic financial instruments and demonstrate to the private financial sector the potential profitability within these areas.
- viii. **International partner:** NDBs have access to long-term sources of local and international investment financing, as well as to non-reimbursable resources for development purposes. In a number of countries, NDBs are the main financial player with access not only to long-term hard currency borrowings at relatively favorable rates and conditions for the financing of long-term investment projects, but also to grants and non-reimbursable technical assistance resources. The MDBs, bilateral development finance institutions (DFIs), and foreign export credit agencies (ECAs) use NDBs as financial intermediaries for long-term hard currency loans, as well as for the allocation and disbursement of development grants. They can also blend market and concessional resources from different sources.

- ix. **Connector:** Finally, and most importantly in the context of this area, NDBs can easily establish the connection with all of the relevant public and private sector actors that need to be involved in financing climate change mitigation projects. NDBs also have close relationships and interactions with social and environmental organizations, as well as civil society, and are thus generally better accepted than other lending institutions.

Given their unique position in their local financial markets to reach local sources of capital, their strong knowledge of their countries' development needs and local opportunities, and their vast experience in long-term investment financing, NDBs have the natural capacities and competencies to be in leadership positions in scaling up international and national finance for climate change investment projects. Furthermore, they have the potential to play a significant role in climate finance and, by learning lessons from other similar institutions, have the potential to “leapfrog” the existing climate finance players to make a significant impact on the ground. In short, the capacity of NDBs to engage local financial institutions in becoming active in climate finance is unique.

2.4. Types of NDB Financial Instruments to Promote Private Finance and Scale up Investments

NDB activities and instruments can address both demand and supply financing needs to mobilize climate finance, and can thus leverage scale. Referring to Figure 1 in Section 3.2, in the pre-investment phase, there are a number of activities in which the NDB can get involved to prepare the policy environment, project proponents, local financiers, and the specific project itself for investment. This is mostly through the provision of grants and technical assistance, although in the case of feasibility studies, it is possible (and even advisable) to require a reimbursable contribution if the project proceeds. At the investment phase, the NDB can provide a combination of financial instruments to facilitate the financing of projects.

NDBs can apply the tools they have to address pre-investment and investment needs, which can be deployed to draw private capital into a particular area. This section looks at how typical NDB financial instruments can be used to leverage climate finance:

i. Grants

Grants can be used for a variety of activities in both the pre-investment and the investment stages. In the pre-investment stage, grants can be used for technical assistance to help the project or company become investment ready. This may include training or capacity building at the company level, or preparation of a business plan or a feasibility study.

These tend to be activities supported by grants to help the demand side. Grants can also be more widely used for awareness building and national dialogue and advocacy to strengthen the enabling environment. In addition, grants could be helpful during the pre-investment phase for training of local financial institutions in climate finance.

In the investment phase, grants can be used to lower the interest rate. They can be mixed with commercial credits, used as a guarantee fund for losses, in lieu of equity in a capital structure, or extending repayment terms/grace periods. These grants can be blended with NDB loans to support projects directly, or to channel them via the LFIs.

Box 5 describes Chile's CORFO, which subsidizes studies for energy efficiency audits, the

Box 4: An Example of an NDB's Use of a Grant Instrument

CORFO (Corporación de Fomento de la Producción) in Chile has established a program (Programa de Preinversión en Eficiencia Energética) aimed at supporting SMEs to optimize energy consumption and reduce the costs associated with its use. CORFO co-finances studies and consultancy services that enable SMEs to identify various investment alternatives, up to 70 percent of the total cost of the consultancy, and with a limit of about US\$10,000.

Moreover, within its Non-Conventional Renewable Energies (NCRE)¹ program, the IDB supports energy generation projects by subsidizing preliminary pre-investment studies or specialized assessments for up to 50 percent of their total costs, up to a maximum of US\$60,000, but not more than 2 percent of the estimated total investment in the project. It also subsidizes up to 50 percent of the costs for advance studies, in areas such as electricity connection assessments and environmental impact declarations, up to a maximum of 5 percent of the estimated total investment.

¹NCRE refers to wind, solar, biomass, biogas, geothermal, and tidal energy, plus hydro energy of less than 20 MW. Sources: CORFO web site (<http://www.corfo.cl/programas-y-concursos/programas/programa-de-preinversion-en-eficiencia-energetica>); Duffey (2010).

implementation of energy efficiency measures, and the preparation of investment plans for submission to a funding source.⁶

ii. Tier 1 Loans

Tier 1 loans are direct loans with some or all of the project obligor's credit risk assumed by the NDB. In this case, the NDB acts like a commercial bank, extending credit directly to a project or a company. NDBs' long-term finance

Box 5: An Example of an NDB's Use of a Tier 1 Loan Instrument

In the case of Brazil, BNDES has participated on a pari passu basis with commercial banks on a number of large wind projects. The LFIs and BNDES participate in the transaction based on the same terms and conditions. Because the transactions are too large for any single LFI to fund them, the NDB provides additional capacity through direct Tier 1 loans.

Source: BNDES web site at:

http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2011/20111312_eolicas.html

can be senior debt, that is, pari passu with other lenders, or subordinated debt, putting the NDB in a role of secondary creditor. In these cases, NDB financing can be blended with concessional funding (grant or low-interest loans) from international climate partners. Box 6 describes BNDES's use of Tier 1 loans, which directly attract local and international financial institutions by filling the financing gap in large wind projects.

iii. Tier 2 Loans

Tier 2 loans are loans by an NDB to LFIs—typically commercial banks or other financial intermediaries—for on-lending. The NDB takes the credit risk of the LFI directly, and the LFI assumes the credit risk of the project.

As in the previous case, NDBs can blend their own resources with highly concessional resources obtained from their own government, international sources of public financing, and multilateral and bilateral institutions in order to improve the terms and conditions of their funding to Tier 1 banks. As such, they can offer better loan terms and conditions to project developers.

An example is COFIDE in Peru (see Box 7), which used an innovative and unusual channel for financial intermediation for taxis and buses that had been converted to natural gas. The local gas stations collected the loan repayments via the gas pump. COFIDE provides Tier 2 loans at concessional rates to participating banks, as well as the technology platform to make the system work.

iv. Equity

Although not a frequently used instrument, some NDBs have a mandate to provide equity. They invest in technology companies and projects directly or via venture capital or seed funds. NDBs can be in a first-loss position vis-à-vis other investors, or they can invest alongside other investors. Some NDBs, such as

Bancoldex Capital, a subsidiary of Bancoldex of Colombia, invest as Tier 2 investors. In

Box 6: An Example of an NDB's Use of a Tier 2 Loan Instrument

COFIDE's COFIGAS is a program that funds LFIs to finance the conversion of fuel for natural gas in taxis and buses in Lima, Peru. The cost of conversion is amortized over a period of time, and capital and interest payments are made at the gas pump every time the vehicles are refilled. The program utilizes an existing and secure payment platform, thereby improving the credit risk of individual loans, buying down transaction costs, and allowing wide-scale deployment. As of the end of 2010, 135 gas stations had entered the program. Also, 572 buses and over 100,000 taxis in the city of Lima had been converted. Lima plans to convert 15,000 to 18,000 buses within five years and 250,000 to 300,000 cars within 10 years.

The benefits that have been seen are a reduction in GHG emissions, and, for many taxi drivers, greater access to finance and other financial products, once they build up of their credit history record. In addition, as the program for conversion to natural gas expands, the number of financial intermediaries channeling funds for this purpose has grown significantly. The key to this program has been the reliability of the payment platform, which links COFIDE with gas stations and local banks throughout the country.

ⁱThe COFIGAS program is not only open to vehicles, but also to the industry, residential, and service sector.

Source: COFIDE web site at:

<http://www.cofide.com.pe/cofigas/presentacion.html>;

http://member.bnamericas.com/interviews/oilandgas/Carlos_Paredes_Corporacion_Financiera_de_Desarrollo_Cofide; Alide (2011).

Box 7: An Example of NDBs' Use of Equity Instrument

Bancóldex Capital provides equity capital to address the market gap for venture capital and private equity in Colombia. As a Tier 2 NDB, Bancóldex invests in funds rather than directly into companies or projects. Bancóldex Capital made an investment in a small venture capital fund, called 'Progresia Capital' based in Medellin. Progresia is a fund of US\$20 million which focuses on high growth potential companies in the area of, inter alia, alternative energy with individual investments ranging between US\$0.5mn and US\$2 million.

Source: Bancóldex web site at:

<http://www.bancoldex.com/contenido/categoria.aspx?catID=359> (p. 29).

other words, they invest in venture funds managed by a private fund manager, rather than directly in companies or projects. Often, the NDB investment is seen as an anchor in a fund, drawing additional local and international capital.

v. **Guarantees**

Guarantees and related contingent liability instruments typically involve an NDB providing credit enhancement to a LFI, or other third party financial intermediary providing direct funding or other investments. The NDB assumes some or all of the credit risk associated with a project that might otherwise dissuade investors and lenders from providing funding. There are different types of guarantees. Those relating to credit risk are the most straightforward and, generally speaking, better understood by market players. Traditional credit guarantees provide unconditional, irrevocable assurance to a third-party lender that principal and interest will be paid when due in the event the borrower is unable or unwilling to pay. Such guarantees normally cover less than 100 percent of the borrower’s payment obligations. “Full credit” guarantees may cover up to 95 percent of the payment obligations, while “partial credit” guarantees may cover 25–30 percent of the payment obligation (normally with a capped absolute amount). In some cases, a credit guarantee may cover a certain percentage of a borrower’s total assets or net worth. Box 9 provides an example of an NDB’s use of a guarantee

Box 8: An Example of NDB’s Use of Guarantee Instrument

Many of the larger LFIs in Peru have significant exposure and experience in financing hydropower projects and, for internal risk reasons or existing prudential regulations, may have reached their limits in this sector. A loan guarantee from COFIDE would mean for the LFI a full risk transfer from the counterparty, being no longer a project finance structure, but now a COFIDE risk. Another interesting example is the capital guarantee and risk capital fund in support of clean energy and energy efficiency projects offered by another Tier 2 bank, CORFO. This instrument was introduced in 2009 within the NCRE support program to address NCRE-specific investment risks. In the case of capital guarantee funds, the instrument applies to both CORFO-funded projects and self-funded projects up to a total of US\$7.5 million.

Sources: COFIDE web site at: www.cofide.com.pe; Duffey, (2010).

instrument from COFIDE, and an example of a capital guarantee and risk capital fund in support of clean energy and energy efficiency projects offered by CORFO.

vi. Management of Funds

In some instances, NDBs are asked to manage funds on behalf of other entities. In these cases, the NDB is not using its own resources, but rather the capital is provided by a third party, such as the national government or a foreign donor, and the NDB manages it for a fee. As a public sector entity which acts within the financial sector, an NDB is an ideal player to *manage* such funds on behalf of the government, given the skills, expertise, and reliable systems that it has (see Box 10 for an example).

Box 9: An Example of NDB's Management of Funds

Established in 2010, the Brazil National Fund on Climate Change (FNMC) was created to finance mitigation and adaptation projects and to support studies on climate change and its effects. The trustee is the BNDES. Part of the resources will come from a special tax on the profits made in the oil production chain, made possible by the Petroleum Law. Other contributions are collected from public, private, national and international donors. The initial 2011 FNMC budget is estimated to be US\$100 million.

Among others, BNDES also manages the Amazon Fund, created in 2008 to raise donations for non-reimbursable investments aimed to prevent, combat, and monitor deforestation in the Amazon. In addition to managing the Fund, the Bank also raises funds, selects projects, and monitors their progress after they have been contracted.

Source: BNDES web site at: www.bndes.gov.br.

2.5. Roles and Instruments of NDBs to Promote the Effective Scaling up of Climate Finance

Table 3 summarizes how the instruments discussed in Section 3.4 can be deployed by NDBs to meet the needs described both in the pre-investment stage, through grants and technical assistance, and the investment stage, when the NDBs may need to offer risk enhancements, funding subsidies, or other financial structures to entice private capital into a project.

Table 1: NDB Instruments to Address Needs to Enhance Effectiveness of Climate Finance

Phase	Climate Finance Needs	Climate Finance Activities	NDB Instruments
Pre-investment phase	Technical Assistance	Policy development and capacity building	Grant
	Technical Assistance	Demand creation	Grant
	Financial Contribution	Feasibility study / project preparation	Partial grant or reimbursable contribution
Investment Phase	LFI needs LT funding	Debt	Tier 2 loan market terms
	LFI needs LT funding / Project needs subsidized interest rates		Tier 2 loan subsidized interest
	Project needs additional capital		Tier 1 loan market terms
	Project needs additional subsidized capital		Tier1 loan subsidized interest
	Project needs early stage cash flow room		Tier 1 longer tenor / grace period
	LFI needs risk sharing		Guarantee
	Project needs additional capital		Mezzanine debt
	Project needs additional equity		Equity
	Project needs equity which will draw other equity in	Equity first loss position	

Source: Authors' elaboration.

During the pre-investment phase, grants or financial contributions can be used to address technical assistance needs in the following areas: capacity building; creating demand for companies and projects; developing expertise in the preparation and assessment of climate projects; undertaking feasibility and environmental impact studies; preparing business plans; and designing and implementing monitoring, reporting, and verification systems for results.

During the investment phase, there are two elements to the capital structure: debt and equity. On the debt side, there may be issues regarding the local financial institution's ability to provide long-term debt for the project, in which case the NDB can provide a Tier 2 loan. Depending on the expected cash flows from the project, the loan can be at market or concessional rates. The latter are in generally preferable for the support of mitigation-related

projects, as a tool to increase competitiveness of “clean” fuels in comparison to fossil fuels in energy generation. In other cases, the project or company requires the NDB to direct lend using a Tier 1 loan. This could be alongside commercial banks on a *pari passu* basis or on more generous terms, such as longer tenors or lower interest rates to improve the repayment profile of commercial bank debt. The NDB could also provide a guarantee, as best suited to bear the risks that the private sector is not willing or able to bear. Similarly, the NDB can help the equity structure by providing additional equity on equal or more favorable terms.

2.6. Overview of NDBs in the LAC Region

NDBs are increasingly integrating climate change considerations into their core operations, and are also increasingly active in financing climate change interventions. This goes hand in hand with the growing realization that NDBs have a critical role to play in channeling funds towards low-emission projects and programs.

In an effort to present the role currently played by NDBs, the International Development Finance Club (IDFC) recently engaged in a study aimed at disclosing data on its members’ involvement in green financing.²⁴ The study found that NDBs’ total green finance commitments in 2011 amounted to US\$89 billion, of which 83 percent was devoted to green energy and mitigation of GHG emission reductions activities (Ecofys-IDFC, 2012).²⁵

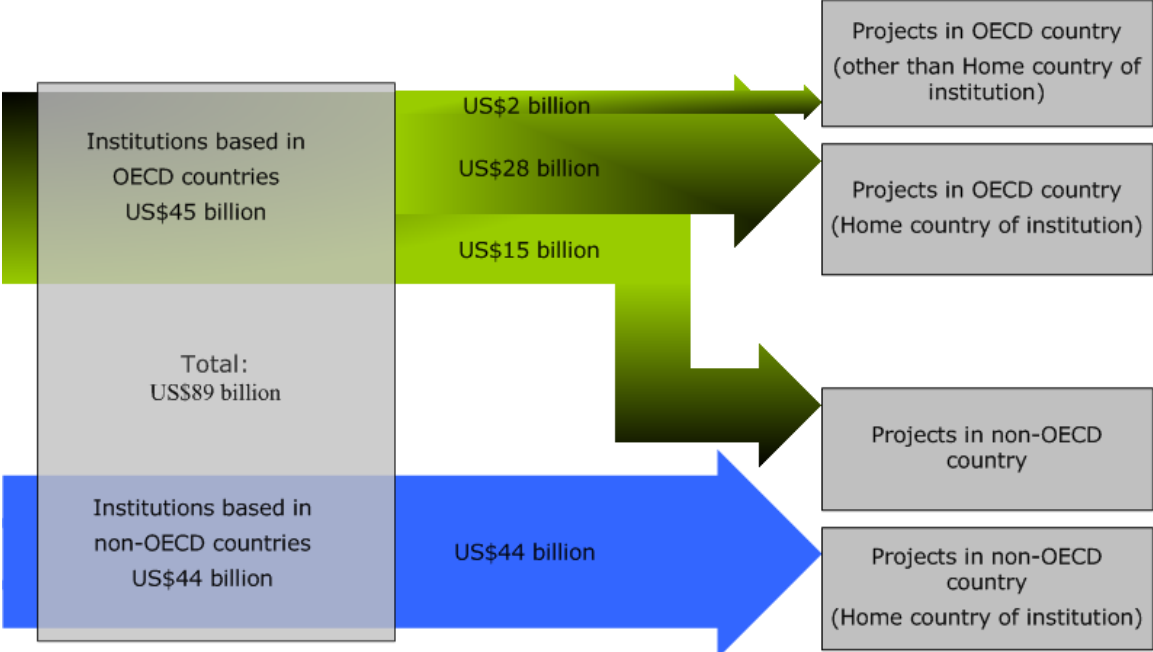
NDBs in the LAC region are contributing to this volume. The Banco del Estado (BEDE) in Ecuador, Bancoldex in Colombia, BNDES in Brazil, and Nafin in Mexico are included in the IDFC study.²⁶ Figure 3 provides a snapshot of the report’s main findings.

²⁴ Ecofys-IDFC (2012) mapped a broad range of green interventions, and hence adopted the green finance definition to refer to financial investments flowing into sustainable development activities through to policies that promote and encourage a sustainable growth. Their definition of green finance includes climate finance, but also considers a wider range of other environmental objectives.

²⁵ Green energy and mitigation activities include, for instance, renewable energies generation, energy efficiency measures in industry and buildings, and forestry projects. Of the US\$89 billion attributed to green finance commitments, approximately 10 percent was directed to adaptation measures, while 7 percent went towards other environmental projects.

²⁶ Among the other members in the LAC region, whose financing was mapped out in the exercise, there are the Development Bank of Latin America (CAF) and the Central American Bank for Economic Integration BCIE/CABEL.

Figure 3: International and Domestic Green Finance Delivered by IDFC Members in 2011



Source: Ecofys-IDFC (2012).

The contribution of NDBs in the LAC Region has grown and is likely to grow even more as, in an effort to increase the availability of funds at terms and conditions appropriate to promote climate-related projects, some governments are increasingly involving their development banks to promote the structuring and financing of mitigation and adaptation projects. This entails supporting them to enter into financing and technical assistance programs with MDBs in order to obtain the technical and financial support that will be required to fulfill this new mandate (Alide, 2011).

Table 4 provides an overview of the products offered by the nine NDBs surveyed between April and July 2012. Annex IV offers examples of these nine NDBs’ activities in climate finance, as well as their success in accessing and intermediating international public climate funds. Annex V describes some case studies.

Table 1: Instruments Offered by Selected NDBs

NDBs	Grants / TA	Tier 2 loans (via LFIs)	Tier 1 loans (Direct)			Guarantees	Other contingent facilities	Equity		Management of funds	Co-finance with other funds
			LT Inv't loans	ST working capital loans	Other			Direct Equity	Equity into Funds		
AFD	X	√	X	X	X	X	X	X	√	X	
BANCO DEL ESTADO (BEDE)	√	√	√	X	X	X	X	X	√	√	
BANCOLDEX	X	√	X	X	X	√	X	X	√	X	
BANDESAL	√	√	*	*	*	√	X	X	√	X	
BNDES	X	√	√	√	√	X	X	√	√	√	
COFIDE	√	√	X	X	X	X	√	X	X	√	
FINANCIERA RURAL	√	√	√	√		√	√	√	√	√	
FINDETER	√	√	X	X	X	X	X	X	√	√	
FIRA	√	√	X	X	X	√	√	X	X	√	

(*) Since 2012, with the Ley del Sistema Financiero para el Desarrollo, Bandesal, can provide Tier 1 loans. Through May of 2012, no Tier 1 loans had been granted.. The Bank has also recently established a credit line for Tier 1 renewable energy generation projects.

Note: TA: Technical Assistance; LT: Long Term; ST: Short Term.

Source: Direct reporting from the NDBs, as of April 2, 2012.

According to survey responses, some banks are Tier 2 only (AFD, Bancoldex, COFIDE, Findeter and FIRA) while others (BEDE, Bandesal, BNDES, and Financiera Rural) can lend directly to projects (Tier 1) or indirectly via LFIs (Tier 2). Nearly half of them offer guarantees and other contingent facilities. Technical assistance is an important product for six of the nine banks, but only three approved financing in the past three years. Investment of equity, either directly into projects and companies, or via funds, is provided by four of the nine NDBs sampled.

All nine selected NDBs of the region are involved in climate financing to different extent, with different toolboxes of instruments, and are also at diverse stages of “readiness” for actively promoting climate-related programs. Some NDBs, such as the Paraguayan AFD, have only recently become involved in this area, contributing US\$220,000 in 2011 for a small reforestation project. Considering the government’s commitment to addressing the drivers of deforestation and forest degradation and the recent kick-off of the UN-REDD+ National Program, the Bank has an increasing role to play in the forestry sector.²⁷

Others NDBs have already accessed, or are about to access, international climate funds from bilateral and multilateral entities. Bancoldex and Financiera Rural, for example, will receive—through the IDB—international public climate funds, including US\$50 million and US\$15 million from the Clean Investment Fund (CIF), respectively. Financiera Rural will receive funds from the Clean Technology Fund (CTF) to finance two programs, one to convert the public transport system in Bogota (US\$40 million) and another to promote energy efficiency measures in hotels and hospitals (US\$10 million). The latter, which has financing instruments in place tailored to the forestry sector, will receive financing from the Forest Investment Program (FIP) in 2013.

Bandesal and FIRA accessed bilateral funds from KfW, the German Development Bank. With this bilateral funding Bandesal supports a program aimed to promote energy efficiency and renewable energies through dedicated credit lines offered on preferential terms, the so called “Empresa Renovable.”²⁸ With KfW funding, FIRA has financed on a zero-return basis the early stages of implementation of a CDM-Programme of Activities (PoA), aimed at facilitating the capture and utilization of methane emitted from the anaerobic digestion of wastewater and/or sludge in relevant

²⁷ Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to offer incentives for developing countries to reduce emissions from forested lands and to protect and manage sustainably their forests. The UN Programme aims to assist developing countries in the preparation and implementation of national REDD+ strategies.

²⁸ For additional information, see Bandesal web site at: <http://www.bandesal.gob.sv>

agro-industries in México, under the framework of the Clean Development Mechanism.²⁹ KfW also provided its expertise to develop FIRA's capacity in structuring such programs.

In addition to KfW, FIRA has established strategic alliances with several national and international specialized partners to capitalize on their expertise in the development of long-term sustainable projects, while improving its knowledge about environmental issues. Among these alliances are the United Nations Environment Program (UNEP), its Finance Initiative (UNEP-FI),³⁰ and the Sustainable Energy Finance Alliance (UNEP-FI, 2012a; Alide, 2011).

To incentivize green investments and address their specific financing needs, all of the selected NDBs have dedicated programs and toolboxes of instruments in place to finance climate-related projects. With the exception of the AFD in Paraguay, all offer them on more favorable terms and conditions compared to their conventional credit activities. BNDES, for example, supports renewable energy (RE) projects at interest rates 1.4 percent below those offered for coal or oil thermal plants. Also the financing terms varies, 16 to 20 years for RE projects, versus 14 years for conventional plants. Moreover, the maximum financing participation for renewable sources varies between 70 percent and 90 percent, while its participation for coal or oil thermoelectric plants is capped at 50 percent (IDFC, 2012b).

²⁹ For additional information see e.g., http://www.kfw.de/kfw/de/KfW-Konzern/Klimaschutz/PDF/Press_release_KfW-DB-FIRA_Mexico_04-12-2010.pdf.

³⁰ UNEP-FI is a global partnership between UNEP and more than 200 financial institutions and partner organizations worldwide. For more information see: <http://www.unepfi.org/about/index.html>

1. How NDBs Can Leverage Private Finance

1.1. Introduction

The potential of NDBs to use the financial instruments described in Section 3 to leverage other public and private sector resources is significant. This section focuses on how NDBs can leverage private climate investments by channelling international sources of funding into country-driven climate change activities. It explains leveraging; specifically how each dollar invested can mobilize additional resources to bridge the financing gap.

Within the LAC region, the mitigation investment needs range between US\$40 and US\$80 billion per year until 2030 (Stern, 2009; World Bank, 2010a). However, current financial resources for climate change mitigation projects in the region amount to about US\$15 to US\$25 billion per year (Climate Wedge, 2011), a figure well short of what will be required. The NDBs' ability to engage the private sector through tailored and innovative financing solutions, and their potential to leverage international and their own resources, could go a long way toward filling the gap.

1.2. Definition of and Methodology for Calculating the Leverage Effect

While there is broad agreement on the need to leverage private sector involvement in green financing, there is no single, universally applied definition of this term, or methodology to calculate leverage ratios. There is uncertainty about how best to quantify its extent, as the terms have different meanings to different people (Buchner et al., 2011; Brown et al., 2011).

Narrowly, in financial terminology, leverage refers to the ratio of equity to a blend of debt. Financial institutions, such as MDBs, measure it as the ratio of public to private co-financing, as they aim to understand and demonstrate the multiplier effect generated by their contributions. A dedicated climate change fund like the Global Environmental Facility (GEF) goes beyond these boundaries, considering the leverage effect that occurs beyond its intervention, such as project replication.

Box 11: Definitions of “Leverage”

Some of the definitions of leverage being applied in the area of climate finance by various institutions include:

- The **CTF** reports the definition of leverage to be “a combination of the total public and private co-financing to CTF financing.”
- The **GEF Secretariat** defines leveraging to be “public and private co-financing that is: a) additional (covers part of the incremental cost associated with climate-related interventions); b) substitutes finance from one project to another; and/or c) where finance is mobilized later as a result of a GEF project.”
- The **GEF Independent Evaluation Office** defines it as “financing that occurs in conjunction with GEF project that supports activities generating environmental benefit, and that would not have been occurred in the absence of the GEF project, or that would otherwise have been spent in ways that contribute to environmental degradation”.
- The **World Bank** Group measures the project leverage of the Group's infrastructure financing defined as project cost divided by WBG financing.
- The **World Bank Carbon Finance Unit** in the context of delivering carbon finance refers to it as “the overall capital investment needed for the project to the net present value of the primary carbon finance unit”.
- Bilateral development financial institutions generally consider the ratio of the disbursed loan to the budget money received from the government as its first level of leverage. Their second level of leverage is co-funding from other public or private investors.

Source: Brown et al., 2011; Buchner et al., 2012.

The methodologies used to calculate the leverage effect also differ between entities. For example, CIF calculates leverage using a qualitative method prior to the investments, whereas the GEF examines the leverage ex-post based on empirical evidence gathered from interviews with GEF project managers. Ultimately, leverage impact largely depends on how climate finance is being delivered. Financial instruments have different characteristics and thus ability to leverage or catalyze private capital.

The leverage factor is not only dependent on the instruments being used, but can vary considerably according to the barrier being addressed, the country/region where the investment takes place, and the specific project characteristics (see Brown et al., 2011). The type of intermediary delivering the climate finance also impacts the level of leverage potentially achieved.

All of the definitions presented in Box 11, except for the World Bank Carbon Finance Unit, calculate the leverage achieved both by public and private resources. Given that private finance represents the lion's share of the climate finance landscape and it is the source that needs to be incentivized and scaled up by NDBs, for the purposes of this report leverage is defined as “the process by which private sector capital is ‘crowded-in’ as a consequence of the use of public financial intermediaries and financial instruments” (Brown and Jacobs, 2011).³¹

4.3. The NDBs Leverage Factor

Following on the definitions and methodologies adopted by different institutions active in climate finance, there have been many reports that claim significant leverage multipliers. No published work exists so far on the leverage potential of NDBs, using the instruments at their disposal and their comparative advantage compared to other intermediaries more distant from the market. A number of estimates of leveraging ratios are available, ranging from 1:3 to 1:8. That is, US\$3 to US\$8 are mobilized from commercial banks and other sources such as the capital markets or governments, for every dollar channeled by bilateral and multilateral banks. Annex VI provides details on the methodology used to calculate leverage.

It is difficult to estimate a specific and sound leverage ratio for NDBs. Few of them consistently track and measure the amount of private sector capital that has been mobilized as a consequence of their activities. This is even more complex in the context of climate finance. However, a look at their advantages and disadvantages compared to those of MDBs indicates the scale of the catalytic effect generated by NDBs.

NDBs have a variety of financial instruments at their disposal to facilitate climate investments, many of which are the same as those that MDBs have, but the conditions under which they are provided are different. Box 12 compares the MDB climate finance leverage factors and adjusts them for the particular characteristics of NDBs. The importance of leverage was emphasized by the United Nations' High-Level Advisory Group on Climate Change Financing (AGF), a group of experts tasked by the UN General Secretariat to develop practical proposals on how to significantly scale up financing for mitigation and adaptation measures in developing countries. By using the concept of leveraging to

³¹ See also AGF (2010a) and Brown et al. (2011).

determine the magnitude of total private investments to address climate change stimulated by public interventions (AGF, 2010b), the Advisory Group derived a methodology for calculating the potential leverage that can be exerted by a variety of public financing instruments, those commonly used by MDBs.

This report does not seek to assess the validity of the AGF’s estimates presented above, but rather tries to build upon them to derive the leverage effect that could potentially be exerted by NDBs. The table in Box 12 includes additional instruments to those presented elsewhere, which are frequently available from NDBs, but for which no analysis on MDB’s use of them has been conducted (and therefore N/A is listed in the MDB column of leverage, such as Tier 2 instruments). The leverage factor assumes that the only private capital directly mobilized is comes from other financiers, such as LFIs. Moreover, the leveraging potential, which could exist by the use of a combined set of instruments, has not been considered. Annex VI discusses the theoretical model of leverage for NDBs for each of the financial instruments.

The Tier 1 loans (both concessional and non-concessional) apply the same leverage factor that has been proposed for MDBs, as there is no reason to believe that the ability of an NDB to draw private capital to projects is any better or worse than that of MDBs. MDBs will have a better credit rating for foreign currency loans, which may entice foreign banks to lend alongside of them. But, for LFIs in local currency, NDBs could have a similar level of leverage.

In terms of equity, the leverage is assumed to be higher for NDBs than MDBs. NDBs typically focus on local funds, often acting as anchor investor. These funds will then invest in

Box 12: Comparison of MDB and NDB Leverage Factor

Based on the AGF approach, NDB leverage factors compared to MDBs leverage factors are likely to be as follows in the table below:

Category of Instrument		MDB theoretical leverage factor	NDB theoretical leverage factor
Tier 1	Non-concessional debt	2-5 x	2-5 x
	Debt financed via grants	8-10 x	8-10 x
Tier 2	Non-concessional debt	N/A	1 x
	Debt financed via grants	N/A	4-8 x
Tier 1	Direct Equity	8-10 x	12-15 x
	Equity financed via grants	20 x	20 x
Tier 2	Direct Equity	N/A	12-15 x
	Equity financed via grants	N/A	N/A
	Guarantee at non-concessional rates	N/A	4-8 x
	Guarantees financed via grants	20 x	25 x

Source: Adapted from AGF, 2010b; Brown et al., 2011.

smaller projects at early stages. They can draw other institutional investors into the funds, and these funds can draw co-investors into projects and companies. MDBs tend to work alongside offshore equity providers and can opt for direct investments in larger and relatively established projects. Sometimes, MDBs will also invest in funds as well, but the rationale is that local financial investors will rely more on NDBs to provide a signal or a demonstration effect.

As for guarantees, the leverage factor will depend on the type of guarantee being offered, but in all cases it is reasonable to expect that the NDB's leverage factor will be higher than that of an MDB (i.e., NDB guarantees will be less likely to be called; thus, less capital needs to be allocated) for two main reasons: a) the NDB can more readily anticipate—and possibly even influence—host country factors which could impact, directly or indirectly, the likelihood of a guarantee being called; and b) by operating directly and solely in the host country, the NDB intimately understands local market conditions and the potential impact such conditions may have on the credit quality or commercial performance of a climate-related project.

NDBs have a variety of financial instruments available to facilitate climate investments. Given the fact that NDBs are closer to the local financial institutions and can better understand the risks they face, their ability to leverage is equal to or potentially better than that of MDBs for the same instruments.

1.4. Leverage Effect by LAC NDBs

At the end of 2011, NDBs in the LAC region had outstanding assets of nearly US\$1 trillion and a capital base of US\$100 billion which, combined with their capacity to leverage resources, makes them unique players in scaling up private investments for climate change mitigation. Table 5 shows the nine NDBs sampled and the size of their capital, assets, and annual business volume for the last three years.

Table 1: Sample of NDBs

NDBs US\$ million	Capital base	Total assets	Annual business volumes (approvals)		
	2011	2011	2009	2010	2011
AFD Paraguay	101	275	43	82	110
BANCO DEL ESTADO Ecuador	247	1,239	741	885	927
BANCOLDEX Colombia	694	3,069	2,449	2,677	2,828
BANDESAL El Salvador	198	575	213	2129	291
BNDES Brazil	32,526	333,099	72,186	96,322	82,716
COFIDE Peru	804	2,005	824	1,039	1,570
FINANCIERA RURAL Mexico	2,128	2,174	1,854	1,738	1,928
FINDETER Colombia	0.444	3,380	1,029	1,046	1,368
FIRA Mexico	4,687	7,104	7,986	8,331	7,935

Source: direct reporting from the NDBs, as of April 2012.

The banks in Table 5 represent over one-third of the LAC region's NDB assets and capital. Of the nine NDBs sampled, five track specifically how much private finance is being leveraged by their operations. These are BNDES, COFIDE, Financiera Rural, FINDETER and FIRA. The information provided suggests that these institutions look at leverage in terms of co-financing. For instance, BNDES reports an average multiplier of about 1.4 times its own contributions for their general operations in the past three years. Following the same approach, COFIDE estimates that its tier 2 loans mobilize an additional 20 to 30 percent more from private sources. Commercial banks generally finance up to 60 percent for projects, while the remaining has to come from other private capital. FIRA estimates the relative share of their contributions to be on the order of 54 percent for the last three years. An average of 31 percent has to come from commercial banks, while the remaining comes from other sources, including other development banks and external sources.

1.5. Case Study: NAFIN Leverages the Local Financial Market

Nacional Financiera (Nafin) has established itself as an innovator, incubating novel and catalytic financial instruments and structures to support local SMEs to maximize their business opportunities.³² In addition, it has become a key partner to effectively deploy the Mexican government's low-carbon development strategy and to accelerate private investments in green technologies.

Engaging the private sector in green financing has been a challenge, particularly in Mexico where, in addition to sector-specific issues (e.g., high investment needs, technology-specific risks, banks' lack of relevant expertise and high risk aversion), access to credit and the relative size of the financial sector are major structural issues in the local economy (IDB, 2011b). These aspects resulted in the lack of adequate financial instruments in support of the renewable energy sector, which was reflected in high interest rates, high transaction costs, high request for collateral, as well as an unexploited renewable energy potential.

Within the CTF investment plan,³³ these barriers were tackled through international financial and non-financial support to structure financing solutions such as the Renewable Energy Financing Facility (REFF). This facility was established within Nafin to fill the financing gap through the provision of: (a) direct loans with long repayment terms (about 10–15 years) and fixed interest rate to project developers, to finance the construction of new RE projects;³⁴ and (b) contingent credit lines to cover transitory cash-flow shortages during the project life cycle (e.g., due to lower than expected energy generation or prices) up to the volume needed to service senior debt. The establishment of this Facility is the third step of Mexico's CTF Investment Plan's business plan, which was mainly shaped by Nafin with support from the IDB. With these initial two steps, in fact, the IDB sought to support the development of a few RE projects through direct financing by the MDBs involved. This third step of

³² The Bank demonstrated in different occasions its innovative capabilities. For instance, in 2001, it launched an online system to provide reverse factoring services to small and medium enterprises, giving access to short-term financing to many businesses which did not have that access before participating in the program (De la Torre et al., 2007; Klapper, 2005). In 2007, it launched a Program for Entrepreneurial Support designed to make technical assistance and credit available for innovative microenterprise projects.

³³ On January 2009, the CTF Trust Fund Committee approved Mexico's Investment Plan, jointly developed, agreed and owned by the Government of Mexico and the CTF. Its aim is to support the low-carbon objectives included in the country's 2007–2012 Development Plan, its Climate Change Strategy, and the Special Climate Change Program (IDB, 2010).

³⁴ The final terms and conditions for end-borrowers will depend on the characteristics of the project, its internal rate of return, and its risk profile.

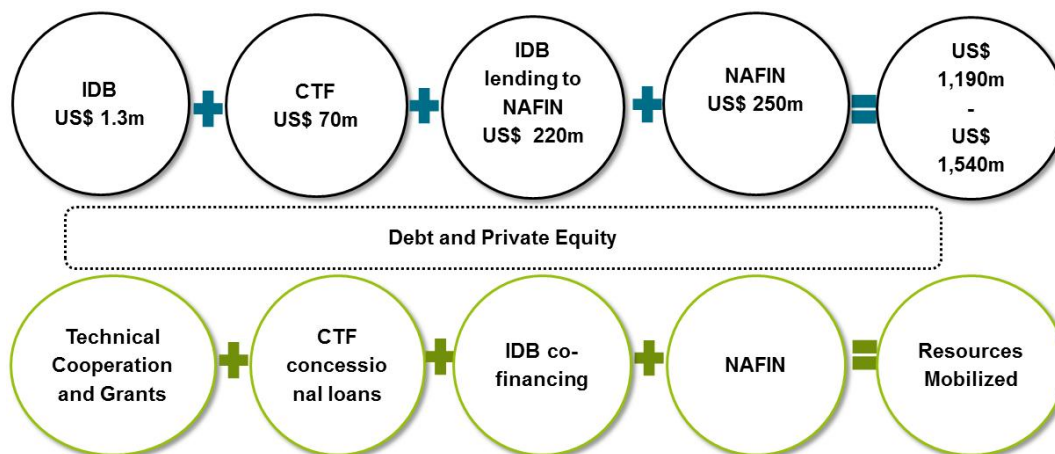
the business plan was aimed, instead, at scaling up and accelerating the availability of finance for RE projects by engaging Nafin.

Nafin was chosen because it is best positioned to channel, directly or indirectly, international partners’ resources, along with its own ones, to local players, ultimately enhancing the overall leverage impact of the initiative. The program aimed to leverage a minimum of US\$70 million of CTF concessional resources initially, of which US\$70 million would come from IDB co-financing from an existing credit line, and a similar amount (US\$70 million) from Nafin’s own resource.³⁵

Nafin would then leverage the overall US\$210 million facility at the project level, by catalyzing private capital. Since a single project is not entitled to more than US\$10 million and 50 percent of its total investment needs from CTF and REFF’s funds respectively, the rest will be leveraged, as will the number of projects that will benefit from the Facility.

IDB estimates that to cover the investment costs of the projects, between US\$1.190 and US\$1.540 billion will have to be mobilized, assuming a 30/70 equity to-debt ratio (IDB, 2011c).³⁶

Figure 1. The Leveraging Effect of the CTF-REFF and Nafin



Source: Authors’ elaboration based on IDB (2011a, b).

³⁵ The terms and conditions applicable to CTF concessional financing to NAFIN are as follows: 45 percent grant element, 48 months disbursement period; 20 years maturity; principal repayment years 11–20 at 10 percent; and a 10 year grace period. CTF’s annual service charge fee is 0.75 percent, while the MDB upfront fee is 0.25 percent (IDB, 2011c).

³⁶ This figure is estimated considering a total 1,000 MW of installed generation capacity and investment costs of US\$2–2.5 million per MW.

Nafin is key to making this to happen, as it is in charge of project selection, the stimulation of demand, and the structuring of financial packages appealing to local project developers, taking into account the unique constraints that they face in the country. Moreover, the risk-sharing arrangements put in place between the Bank and borrowers will be critical to unlock financing, as developers depend on the off-takers' credit qualifications.

Nafin was a natural partner for the IDB to execute this program. Given its long history of collaboration in SME financing, Nafin proved to be a solvent institution with adequate risk management systems and practices in place. The bank has a Sustainable Project Directorate, a unit dedicated to supporting climate-related projects, which received technical assistance from the World Bank. Furthermore, Nafin already has experience in structuring the financing of wind projects, which will likely constitute the great majority of the RE projects supported under the REFF. In fact, it had already supported the financing of the EURUS and the Piedra Larga Wind farms in the region of Oaxaca, which are part of the overall CTF investment plan.

By executing the REFF program, Nafin's capacity to prepare, assess, and evaluate and monitor risk in this type of project will be further strengthened. This will also occur at the LFI level. Those LFIs that will take part in the projects will familiarize themselves with the risk-management and financing requirements of RE projects and will develop the institutional capacity required to handle them, particularly with regard to monitoring, reporting, and verification of results, ultimately boosting RE investment in the country. The CTF Trust Fund Committee approved the REFF facility in 2011. By the end of that year, Nafin completed the project structuring and negotiations with partner institutions.

2. Conclusions and Next Steps

To support the global transition toward a low-carbon, climate-resilient future, there is a pressing need to scale up investments in climate change mitigation. Public resources cannot finance this transition alone; unlocking private capital is essential. However, barriers to private investment in climate-change mitigation limit the involvement of that sector. International and national public funds are essential to unlock private climate finance by taking on the classes of risk that the private market will not bear.

NDBs have a unique role and focus as intermediaries in climate finance. Their special knowledge and longstanding relationship with the private sector put them in a privileged position to

have access to local financial markets and understand local barriers to investment. Compared to commercial banks and investment funds, they have the potential to take risks that those financial intermediaries may not be able to take, while financing at long-term investments. Public finance from NDBs can be used to leverage private and international public finance for investments, contributing directly to the incremental cost of implementing low-carbon policies by addressing demand-side barriers, as well as providing the necessary incentives to mobilize the supply of climate-friendly private investment.

NDBs offer a range of financial and non-financial instruments to promote private finance. NDBs' activities and instruments can cover both demand and supply financing needs to mobilize climate finance and thus can leverage scale. An NDB can apply the instruments at its disposal to meet the needs described in the pre-investment stage through grants and technical assistance to help investors and LFIs in understanding and tackling the specific investment and financial barriers that prevent private actors to engage in green and climate-resilient projects. Likewise in the investment stage, when NDBs may need to offer risk enhancements, funding subsidies, or other financial structures to entice private capital. Given the fact that NDBs are closer to LFIs and can better understand the risks they face, their ability to leverage is equal to or potentially better than that of MDBs for the same instruments.

Within Latin America and the Caribbean, NDBs are already piloting such instruments for climate change mitigation and have significant potential for leveraging national and international public and private resources. At the end of 2011, NDBs in the LAC region had outstanding assets of nearly US\$1 trillion and a capital base of US\$100 billion that, combined with their capacity to leverage resources, makes them unique players in scaling up private investments for climate-change mitigation. For these players to more effectively scale up private investments in climate change mitigation programs, however, there is a need to:

- 1. Enhance coordination among national and international climate finance actors to encourage private climate finance.** The growing number of initiatives and actors involved in climate change at the international, national, and subnational levels increases the need for mechanisms to coordinate the activities of these institutions and actors. In many cases, such mechanisms are either missing or need to be applied in such a way as to guarantee efficiency,

complementarity, coherence, and a more organized decision-making process (TNC, 2012). Coordination needs to be improved to allocate international climate finance to support policy initiatives. To achieve the required scale up of financing through the private sector, climate finance also needs to be provided for national private sector investment priorities.

Better coordination of different national and international climate finance actors in each country requires:

- creating clear processes to design a national climate strategy building on sector strategies by different ministries, leading to robust investment plans;
- jointly preparing project pipelines with bankable projects; and
- enhancing cooperation between UN agencies and multilateral and bilateral donors.

2. Enhance the dialogue between national policymakers and NDBs to promote an active role of NDBs in delivering international climate finance. Based on an in-depth analysis of climate change strategies in Brazil, Costa Rica, Indonesia, Mexico, and Peru, a recent study highlights that limited in-country coordination between the various actors and institutions may in fact create dispersion and disorder in decision-making processes (TNC, 2012). In most cases, NDBs currently lack a clear government mandate to promote climate-change programs and are rarely involved in the design of national climate-change programs. To fully use the potential of NDBs in climate finance, there is the need for:

- using NDBs as mechanisms to manage and channel climate finance resources;
- considering NDBs' experience and advice for the design and functioning of new climate finance mechanisms such as the GCF; and
- supporting readiness strategies and internal capacity building efforts for NDBs so that they can be more proactive in channeling and promoting climate finance

3. Encourage NDBs to develop readiness strategies for international climate finance mobilization and intermediation.

NDBs have different focus areas and structures and are at different stages of institutional development. This is particularly true with regard to new areas of financial practice, such as climate finance. While there is no one-size-fits-all solution that can be applied to strengthen NDB participation in climate finance, their specific circumstances indicate how their institutional capacities and role could be strengthened. Some, like BNDES, already have the capacity to be active in climate finance, while others still need to develop and strengthen their capabilities in this area of finance. Apart from seeking a clear mandate from their governments to actively participate in this area of finance, these institutions should increase their interactions with more mature development financial institutions, both at the national and international level.

A particular capacity that NDBs will have to strengthen to become credible, reliable intermediaries in climate finance is related to the monitoring, reporting, and verification of environmental benefits. To access international climate finance, the effectiveness of programs and the achievement of environmental results of investments need to be proven, requiring considerable capacity.

Depending on their specific scope, institutional development and government mandate, specific readiness programs can help NDBs build capacity and become reliable and credible intermediaries for climate finance. Components of readiness programs include:

- building internal capacity and knowledge about international climate funds; and
- improving capacity to measure, report, and verify the impacts of interventions, including the measurement of environmental benefits and the amount and type of private finance leveraged.

4. Build knowledge about best practices of NDBs in climate finance. A better understanding of effective funding sources and channels and the catalytic potential of different instruments can provide lessons to the international climate finance community on what works and what does not work, informing the design of existing and emerging financing mechanisms and helping governments to spend their financial resources more wisely. Given the ongoing efforts in the

design of the GCF, there is a window of opportunity for NDBs to feed lessons from their own financing practices on the ground, thus influencing the future of climate finance. NDBs can offer important lessons on various design features, including on how to design the Private Sector Facility, drawing on their own extensive experiences with the private sector.³⁷

Given that NDBs have extensive knowledge on opportunities and barriers for investments in their countries, their knowledge of the private sector in their credit markets, and their public and development mandates, decision makers designing climate change financial architecture should consider the particular experience of these financial actors in developing effective mechanisms for long-term climate change finance on the ground.

Assigning NDBs a key role in mobilizing and intermediating international climate finance improves the prospects for achieving the massive scale-up required to achieve climate and development goals. Targeted efforts to address a number of issues and themes could substantially increase the capacity of NDBs to make game-changing contributions to the international climate finance landscape.

³⁷ In December 2011, IDFC members proposed the so-called Smart Partnership for the GCF, pledging their support, technical expertise and knowledge for the design and governance of the fund. In addition, they highlighted their competitive advantages in leveraging, intermediating, and delivering resources on the ground to end-users, hence offering to serve as accredited implementing entities of the fund to enhance the GCF's effectiveness. For additional information, see: <http://www.idfc.org>

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Annexes

Annex I: Carbon Offset Mechanisms

The Kyoto Protocol laid the foundation for a global carbon market, introducing two flexible mechanisms that allow entities to purchase emission reductions from projects in developing countries (Clean Development Mechanism, or CDM) or in industrialized country signatories (Joint Implementation, or JI) to comply with emission reduction commitments or with voluntary objectives. Most of the projects on carbon offset markets are currently related to CDM and JI, and their emission reductions can be acquired directly via carbon offset brokers or carbon procurement funds. Thus, carbon offsets are financial instruments that aim to reduce GHG emissions. Contrary to other major international resource flows dedicated to mitigation, these offset mechanisms channel primarily private resources (more than 80 percent of CDM credits are purchased by the private sector).

The last decade has seen rapid growth in the CDM market. The value of transactions in the primary CDM market totaled around US\$27 billion in 2002–10, which is estimated to have been associated with around US\$125 billion in low-emission investments (Ambrosi et al., 2011). Since most transactions are forward purchase agreements with payment on delivery, actual financial flows through the CDM have been lower. In 2010, the value of carbon offset finance was estimated to be between US\$2.2 and US\$2.3 billion,³⁸ or about US\$5.4 billion over 2008–2010 (Ambrosi et al., 2011). These figures do not capture the actual investment costs of corresponding emission reduction projects, highlighting that carbon offset revenues offer an additional revenue stream that enhances the overall financial viability of low-emission projects. A particular added value is that they can help incentivize the often large up-front capital investments needed for low carbon projects, providing at the same time incentives to overcome social inertia, lack of awareness, and various transaction costs that tend to hinder climate-friendly investments.³⁹ In addition, 2 percent of CDM credits issued are transferred to

³⁸ This range is based on available data from the World Bank, the UNFCCC and IGES (see Buchner et al., 2011).

³⁹ See Ambrosi et al. (2011) for an in-depth discussion.

the Adaptation Fund, indicating that carbon offset markets also help reduce countries' vulnerability to climate change.⁴⁰

Experience shows that carbon offset mechanisms can play a role in catalyzing low-carbon, climate-resilient investment in developing countries, complementing and leveraging other financial resources. Yet, over the last few years, activities in the offset markets have slowed significantly due to declining demand triggered by uncertainties about future mitigation targets and international market mechanisms after 2012.⁴¹ Despite the slowdown in market activity, interest in carbon markets continues to exist, suggesting that their scale might significantly increase over time.

⁴⁰ So far, approximately US\$150 million has been mobilized for adaptation projects and programs in developing countries (Ambrosi et al., 2011).

⁴¹ As Ambrosi et al. (2011) point out, a number of additional factors further constrain the potential of carbon offset markets, including “market fragmentation in the absence of a global agreement, transaction costs associated with complex mechanisms, low capacity in many countries, lack of upfront finance, weaknesses in the current ‘project by project’ approach and non-inclusion of some sectors with significant abatement potential (e.g., agriculture).”

Annex II: A Detailed Overview of Important Climate Finance Channels and Mechanisms

To understand the challenges that international climate finance brings forward to any entity that wants to become an active intermediary of that source of finance, it is helpful to structure the overview of channels and mechanisms according to an analytical framework proposed by Ballesteros et al. (2010).

The framework distinguishes between three dimensions:

- **“Power”** looks at the capacity—both formal and informal—to determine outcomes. Formal power usually implies membership and decision-making rules, while informal power embodies political and economic influence outside the formal rules. This dimension covers governance issues and decision-making rules and addresses the question of whether responsibilities are adequately shared and reporting lines are in place (and transparent).
- **“Responsibility”** represents the exercise of power for its intended purpose. This dimension verifies how the funding is implemented and whether resource allocation is programmed effectively and equitably. Questions include whether the financial mechanisms’ standards and eligibility criteria are strong enough to ensure that its resources are spent effectively.
- **“Accountability”** asks whether standards and systems are in place to ensure that power is exercised responsibly. This dimension covers issues related to monitoring, reporting, and evaluation, both of financial resources and of social and environmental impacts.

Bilateral and Multilateral Financial Institutions

Agence Française de Développement (AFD)		
SYNOPSIS	Description	AFD is a bilateral development finance institution, wholly owned by the French State dedicated to both industrial and commercial activities. AFD is critical in the implementation of France’s ODA.
	“Green” strategy	With the strategic framework approved in 2005, AFD has incorporated climate change into its strategies.
	Sources of funds	French government; philanthropic organizations; grants from EU facilities; capital markets, through bond issuance and private placements.
	Climate change funding	<ul style="list-style-type: none"> • 2005–2010: ~US\$10 billion cumulative commitment (~80 percent mitigation). • The LAC region received 20 percent of “mitigation” commitments.
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • Board of Directors: main decision-making body. It defines the eligibility criteria for accessing AFD’s funds. Composed of 17 members appointed by Decree, it comprises State representatives, experts appointed for their knowledge on economic, financial, ecological, and sustainable development issues and AFD’s staff. Decisions are taken by consensus/vote.
	Eligibility requirements	<p>Eligible “climate intervention” are classified according to predetermined criteria and tools defined as:</p> <ul style="list-style-type: none"> • Mitigation: development intervention that avoids more GHGs emissions than it generates during its lifetime; Projects are assessed with a carbon footprint tool. • Adaptation: development intervention that reduces vulnerability of goods, people or ecosystems to climate risks. <p>Projects are assessed against an operational matrix of criteria.⁴²</p> <ul style="list-style-type: none"> • Eligible to apply for projects: governments, special operation executives, NGOs, private sector, and local authorities. • At all levels of the project cycle is pursued stakeholders involvement.

⁴² AFD has set up a precise typology of projects that can contribute to adaptation objective. The entire portfolio is screened against this typology [e.g. Sector: Energy/infrastructures – projects: dams with protection system against flood, early warning system. Sector: water and sanitation; projects: rehabilitation of water supply networks; drainage systems; rehabilitation/building of wastewater treatment plants (Loyer, 2009; AFD, 2009).

EIB - Climate Change and Environment Fund Investment Programme

SYNOPSIS	Description	EIB is the European Union's financing institution whose shareholders are the 27 Member States. EIB supports the EU's goal of low-carbon and climate-resilient growth, within and outside the Union.
	“Green” strategy	Climate change considerations are currently mainstreamed in all EIB sectoral policies and integrated into all operational activities.
	Sources of funds	EU budget EU member states’ budget EIB resources
	Climate change funding	2010: US\$4.2 billion in climate related loan commitments. Climate equity investments in fund represent approximately ~US\$200 million p.a.
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • Board of Governors: defines the overall direction and credit policy guidelines. It is composed usually of Finance Ministers designated by each of the 27 Member States. • Board of Directors makes decisions on loans, guarantees, and borrowing. • Management Committee: the permanent collegiate executive body; it supervises the day-to-day running of the Bank • Audit Committee: independent body reporting directly to the Board of Governors. • Board and Management Committee set project eligibility criteria. • Decisions are taken by vote.
	Eligibility requirements	<p>Eligible mitigation and adaptation projects are developed within the framework of the EIB’s sectoral lending policies and approaches, especially those regarding energy, transport, water, wastewater, solid waste, forestry, and research, development, and innovation.</p> <ul style="list-style-type: none"> • A Technical Directorate is involved in all projects appraisal. • Eligible to apply for projects: NGOs and the private sector. • Regular communication with stakeholders is pursued.

The International Climate Initiative (ICI)

SYNOPSIS	Description	<p>The International Climate Initiative (ICI) is an initiative of the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU).</p> <p>Based on a decision taken by the German parliament, EUR 120 million from the auctioning of emission allowances is available for financial support to international projects supporting climate change mitigation, adaptation, and biodiversity projects with climate relevance annually, aiming also to ensure that such investments will trigger private investments of a greater magnitude.</p>
	“Green” strategy	<p>Germany has an ambitious domestic target and aims to become one of the most energy-efficient and greenest economies in the world. Being most dedicated to low-carbon (or zero carbon) development, it effectively is a laboratory of policy and financing mechanisms.</p> <p>ICI is an innovative financing mechanism: Germany is the first country to earmark revenues from the auctioning of emission trading certificates for investments in climate protection measures in developing countries and emerging economies.</p>
	Sources of funds	<p>A certain amount of German federal budget funds are earmarked for the ICI German auctioning revenues from the European carbon market.</p> <p>The funds are eligible as ODA and mobilize additional capital (implementing agencies + other public and private-sector sources).</p> <p>Additional funds through the Energy and Climate Fund (launched 2011).</p>
	Climate change funding	<ul style="list-style-type: none"> • Since 2008: EUR 120 million p.a. from auctioning revenues • 2008 until mid 2011: <ul style="list-style-type: none"> ▪ Funding more than 230 projects, BMU commitments exceeding EUR 500 million ▪ More than EUR 1.3 billion total funding volume of ICI projects • The LAC region received US\$79 million (as of October 2011).
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • BMU: main decision-making body. It makes all funding decisions on projects. • International advisory group, made up of experts from governments, academia, nongovernmental organizations, companies, financial markets, and international financial institutions; offers strategic support to the practical work undertaken in the ICI and to its further evolution. • Administration: program office located at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ); supported by Kreditanstalt für Wiederaufbau (KfW development bank).
	Eligibility requirements	<p>Eligible actors:</p> <ul style="list-style-type: none"> • Implementing organizations of German development cooperation, nongovernmental and governmental organizations, universities and research institutes, private sector companies, MDBs, and UN organizations and programs.

•The presence of a robust executing organization in the partner country and support for the project from the country's government are necessary preconditions for project selection.

Project selection is made with regard to

- the criteria of the Paris Declaration on Aid Effectiveness,
- country ownership (as from 2009), and
- strategic priority is given to projects that develop and implement monitoring, reporting, and verification (MRV) mechanisms and feed their experience with them into the international debate, targeting projects that are likely to be MRV-able under a post-2012 agreement.

At the conclusion of each project, a **systematic evaluation** is conducted by a team of research institutes, including measurement of the mitigation impact through greenhouse gas monitoring.

ICC: For further information see <http://www.bmu-klimaschutzinitiative.de/en/news> and <http://www.climatefundsupdate.org/regions/latin-america>

MULTILATERAL FUNDS

The Climate Investment Funds (CIF)	
SYNOPSIS	<p>Description The CIF comprises two multi-donor Trust Funds, the CTF and the SCF,⁴³ whose aim is to pilot low-emissions and climate-resilient development projects in developing countries through scaled-up financing in the form of grants, concessional loans, risk-mitigation instruments, and equity and blended instruments. Operational as of 2008–09.</p>
	<p>Funding and donors • US\$7.2 billion pledged to date by 14 donor countries. • Eligible-LAC countries should receive US\$705 million.</p>
	<p>Focus Mitigation, REDD, Adaptation/climate-resilience</p>
POWER AND RESPONSIBILITY	<p>Governance and decision making • The CTF and the SCF are governed by distinct Trust Fund Committees (TFC) where donor and developing countries are evenly represented. TFC oversees operations, provides strategic guidance, approves the allocation of financial resources and defines eligibility criteria. The SCF has one subcommittee for each of the targeted programs. Decision making is by consensus.</p> <ul style="list-style-type: none"> • MDB Committee: facilitates coordination and collaboration among MDBs and performs certain duties delegated by the TFC and/or subcommittee.⁴⁴ • Trustee: IBRD is responsible for managing and transferring resources to Implementing Entities and reports on the financial status of the funds. • Observers include representatives from UNDP, UNEP, GEF, UNFCCC, civil society, indigenous people (the FIP only) and the private sector. “Active observers” can propose agenda items.
	<p>Implementing entities AfDB, ADB, EBRD, IADB and the World Bank Group (IBRD and IFC). The private sector can typically access funds through IFC.</p>

⁴³ The SCF comprises three Targeted Programs: the Pilot Program for Climate Resilience (PPCR), the Forest Investment Program (FIP), and the Scaling Up Renewable Energy in Low Income Countries Program (SREP).

⁴⁴ Mandated in the SCF and CTF Governance Framework.

<p>Eligibility requirements</p>	<p>Governments, NGOs, and the private sector can express interest in accessing financing.</p> <ul style="list-style-type: none"> • Eligible recipients: ODA-eligible and have at least one active MDB lending program. • CIF Funds-specific criteria/processes apply. • Stakeholders are involved throughout the project cycle. • Eligible projects: CIF Fund-specific criteria apply. <p>Programs are subject to MBD Board approval. CTF projects are reviewed by external technical experts. For the SCF, each Sub-committee appointed an Expert Group to make recommendations on the choice of pilot countries. SCF investment plans are reviewed by independent expert prior to submission.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ACCOUNTABILITY</p> <p>1.Results-based framework (RBM) 2.Monitoring and evaluation (M&E) 3.Environmental and safeguards standards</p>	<ol style="list-style-type: none"> 1. Results frameworks with logic models and indicators approved for each of the CIF sub-Funds to monitor performance.⁴⁵ 2. The TFCs monitor and evaluate MDBs performance and financial accountability. CIF do not have a distinct independent evaluation office. They are subject to evaluation of the MDBs' Independent Evaluation Offices. Evaluation results are annually reported to the CIF Trust Fund Committees and MDB committees. 3. MDBs' safeguards policies apply to programs and projects.

⁴⁵ In May 2012, the SPREP Sub- Committee approved a revised version of the SREP results framework (SCF/TFC.9/5, 2012). At the time of writing this report, the CIF Administrative Unit and the Multilateral Development Bank Committee are working on a simplified results framework for the CTF, the PPCR and the FIP, which will be considered for decision at the next Committees meeting, scheduled for November 2012.

MDG Achievement Fund (MDG-F)

SYNOPSIS	Description	International cooperation mechanism aimed at accelerating progress on the Millennium Development Goals (MDGs) Operational as of 2007.
	Funding and donors	<ul style="list-style-type: none"> • Environment and climate change window: US\$89.50 million pledged by Spain and transferred to programs. • LAC countries received US\$24 million (or 25 percent of the total).
	Focus	Mitigation and adaptation
POWER AND RESPONSIBILITY	Governance and decision making	<p>At the global level, governed by a two-member steering committee (SC) composed of representatives of the UNDP and the Spanish Secretary of State for the Ministry of Foreign Affairs, a secretariat, and technical subcommittees.</p> <p>The SC defines the overall leadership of the fund and its strategic guidance and decides on individual financial allocations.</p> <ul style="list-style-type: none"> • Administrative agent: The UNDP Multi-Donor Trust Fund Office receives, administers, and manages and disburses funds approved by the SC for country-level joint programs. <p>At the country level, a three-level structure coordinates and supports implementation and coordination of program implementation.</p>
	Implementing entities	Programs are implemented in partnership with and/or through local institutions, such as UN agencies, national and local governments, the private sector, community organizations, and NGOs.
	Eligibility requirements	<ul style="list-style-type: none"> • Eligible recipients: 59 countries identified in the Spanish Master Plan for International Cooperation. • Eligible projects: must be developed in compliance with specific guidelines by at least two UN agencies jointly with national government and nongovernmental counterparts, upon its full endorsement. <p>In the first call for proposals, a key criterion for the selection of projects was the measurable impact on the achievement of the MDGs.</p>

ACCOUNTABILITY

- 5. Results-based framework (RBM)
- 6. Monitoring and evaluation (M&E)
- 7. Environmental and safeguards standards

1. An M&E framework with specific indicators is developed for each joint program, as well as an M&E strategy for the MDG-F as a whole. The strategy comprises midterm, final, and thematic evaluation.

MULTI-DONOR TRUST FUNDS

Global Climate Change Alliance (GCCA)	
SYNOPSIS	<p>Description</p> <p>EU initiative seeking to strengthen cooperation between the EU and countries most vulnerable to climate change. Through financial and technical support it aims to mainstream climate change into countries' planning and budgeting for national development programs.</p>
	<p>Operational as of 2008.</p>
	<p>Funding and donors</p> <ul style="list-style-type: none"> • US\$226 million pledged by the EC and some member countries. • LAC countries received US\$15 million for adaptation, disaster risk reduction, and capacity building projects.
	<p>Focus</p> <p>Mitigation, REDD, adaptation</p>
POWER AND RESPONSIBILITY	<p>Decision making</p> <ul style="list-style-type: none"> • Administrator: EU Commission via the DG for Development and Co-operation (DEVCO). • At the country level, the management of GCCA projects is decentralized to EU delegations to the maximum extent possible. • Support facility supports national/regional capacity building and technical assistance measures, and identifies and formulates interventions in particular sectors. • There is evidence of consultation with civil society/stakeholders.
	<p>Implementing entities/ modalities</p> <ul style="list-style-type: none"> • Implementation modalities are interventions-specific, and can be via joint programming and financing with partner governments or other international or regional organizations,⁴⁶ or via direct general/sector budget support released to the countries in tranches as set eligibility criteria or targets are reached.
	<p>Eligibility requirements</p> <ul style="list-style-type: none"> • Eligible recipients: 73 LDCs SIDS countries. <p>Countries are assessed based on their level of vulnerability to climate change, adaptive capacity, and engagement in climate change efforts.</p> <p>A series of broad criteria were established to select the first group of pilot countries.</p> <ul style="list-style-type: none"> • Eligible projects: funds are allocated to interventions in thematic areas in countries according to availability of resources and population structure.

⁴⁶ In the Caribbean, for instance, country support is given through the Caribbean Community Climate Change Centre (CCCCC).

ACCOUNTABILITY

1. Result-based framework (RBM)
2. Monitoring and evaluation (M&E)
3. Environmental and safeguards standards

1. Result-oriented monitoring system envisaged but yet to be established.
Regular reporting on the state of the GCCA is carried out through the GCCA support facility.
2. Independent external evaluation planned.

MULTI-DONOR TRUST FUND

Global Energy Efficiency and Renewable Energy Fund (GEEREF)		
SYNOPSIS	Description	PPP initiated by the EU Commission to provide global risk capital through private investment in EE and RE projects in developing countries and economies in transition. The GEEREF invests in private equity funds that provide equity finance to small and medium-sized projects (up to US\$13 million in size). Through the independent TA Facility it also provides small grants (to date ~US\$4 million). Operational as of 2008.
	Funding and donors	<ul style="list-style-type: none"> • US\$169 pledged by the EC, Germany, and Norway. • LAC Countries in 2011 saw the approval of US\$16.75 million in the Clean Tech Latin American Fund (CTLAF II), a capital fund investing in private companies, particularly Mexico, Brazil, Chile, Peru, and Colombia.
	Focus	Mitigation
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • Administrator: The EIB Group – jointly by the European Investment Bank (EIB) and the European Investment Fund (EIF) • Investment Committee: approves investments and disinvestment. It is composed of representatives of the EC, Germany, and Norway. • Board of Directors: approves the Fund’s budget, oversees operations, and appoints Investment Committee members. • Decisions are taken by unanimity. • Civil society is not involved in decision-making bodies. • The Fund communicate/interact with a broad group of stakeholders.
	Implementing entities/ modalities	<ul style="list-style-type: none"> • The final recipient of GEEREF fund.
	Eligibility requirements	<ul style="list-style-type: none"> • Eligible recipients: private equity funds focused on SME (up to US\$13 million), RE and EE projects/enterprises requiring equity investment. • Candidate funds must have a pipeline of environmentally and financially sustainable projects and meet stringent investment criteria. • Candidate funds have to operate in emerging markets outside the EU, particularly in African, Caribbean, and Pacific countries. • Priority is given to investment in countries with policies and regulatory frameworks on EE and REs conducive to private sector engagement. • Eligible projects: a broad mix of RE and EE projects and technologies that meet strict investment criteria are considered for funding.

ACCOUNTABILITY

1. Results-based framework (RBM)
2. Monitoring and Evaluation (M&E)
3. Environmental and safeguards standards

1. GEEREF assesses results against its stated objectives; investments and final recipients are regularly monitored via procedures established at Fund-of-Funds level.
 2. GEEREF is audited and evaluated by the EC and by the EIB Group's independent evaluation office, which reports to EIB management.
- The fund applies the EIB's Environmental and Social Principles and Standards; fiduciary principles applied follow obligations under Luxembourgish law.

GEF Trust Fund	
SYNOPSIS	<p>Description</p> <p>The UN Global Environmental Facility (GEF) was established in 1991 as an independent financial organization to assist in the protection of the global environment and promotion of environmentally sustainable development. 182 governments are members of GEF, which functions as the operating entity of the financial mechanisms of the: United Nations Framework Convention on Climate Change (UNFCCC); UN Convention to Combat Desertification (UNCCD); Convention on Biological Diversity (CBD); and the Stockholm Convention on Persistent Organic Pollutants (POPs). Although not formally linked to the Montreal Protocol (MP), the GEF also supports its implementation in countries with economies in transition.</p> <p>The GEF administers three trust funds: the GEF Trust Fund, the Least Developed Countries Trust Fund (LDCF), and the Special Climate Change Trust Fund (SCCF). The GEF Trust Fund is the main funding resource of the GEF, and supports climate change as one of its six focal areas. The objective of this part of the fund is to help developing countries and economies in transition to contribute to the overall objective of the UNFCCC. Projects support measures that minimize climate change damage by reducing the risk, or the adverse effects, of climate change. The GEF provides grants and concessional financing for eligible projects and enabling activities to developing countries and EITs. Recent approved reforms designed to give developing countries and stakeholders more control and access to funds include:</p> <ul style="list-style-type: none"> • direct access to GEF resources for recipient countries looking to meet various UN convention requirements; • a streamlined GEF project cycle and a move to a more refined and strategic programmatic investment approach; • a reformed GEF's Country Support Program with US\$26 million funding; and • the launch of a process to determine how best to integrate new agencies, including qualified national entities, into the GEF network. <hr/> <p>Funding and donors</p> <ul style="list-style-type: none"> • US\$3.8 million invested since GEF's inception (data as of June 2011). • This investment seems to have leveraged additional investments valued at more than US\$21.8 billion. • LAC countries received US\$155.1 million for climate change. • The Fifth Replenishment of the GEF (GEF-5) was finalized in 2010 and will fund operations and activities until June 2014. Thirty-five donor countries pledged US\$4.34 billion of which US\$1.4 billion is programmed to support climate change mitigation.

Focus	Five focal areas: biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic.
Decision making	<ul style="list-style-type: none"> • Assembly: composed of all 176 member countries, reviews the general policies, operations, membership, and potential amendments of the GEF. • Council: the main governing body, which is composed of 32 members appointed by constituencies of GEF member countries and responsible for developing, adopting, and evaluating the operational policies and programs for GEF-financed activities, as well as reviewing and approving the work program (projects submitted for approval). • Country representatives: the GEF Focal Points: government officials designated by member countries, to ensure that GEF projects are country-driven and based on national priorities. • Project partners: organizations and entities implementing projects on-the-ground, including governments, national institutions, international organizations, local communities, NGOs, academic and research institutions, and private sector entities. • Independent advice through the Scientific and Technical Advisory Panel
Implementing entities/ modalities	<ul style="list-style-type: none"> • The GEF works through a partnership of 10 agencies that assist eligible governments and NGOs in the development, implementation, and management of projects on-the-ground from the proposal stage. • Implementing agencies: UNDP, UNEP, the World Bank (IBRD), FAO, UNIDO, AfDB, AsDB, EBRD, the IDB, and the IFAD. • The System for Transparent Allocation of Resources (STAR) decides on resource allocation, aiming to channel resources to countries with higher potentials to generate global environmental benefits and the capacity to successfully implement projects. The system aims to incentivize eligible countries to maximize their investment benefits by increasing transparency, predictability of funding, planning, and country ownership.
Eligibility requirements	<p>Eligible criteria to qualify for GEF funding:</p> <ul style="list-style-type: none"> • GEF grants made available within the framework of the financial mechanisms of the UNFCCC should be in conformity with the eligibility criteria decided by the COP. • A country is eligible to receive GEF grants if it is eligible to borrow from the World Bank or if it is an eligible recipient of UNDP technical assistance through its country Indicative Planning Figure (IPF). • GEF concessional financing shall be in conformity with eligibility criteria decided by the COP of each convention.

POWER AND RESPONSIBILITY

ACCOUNTABILITY

- Monitoring and evaluation (M&E)
- Result-based framework (RBM)
- Responsibility for **M&E** is shared among the GEF Evaluation Office, the GEF Secretariat, the GEF coordination units of the implementing agencies, and their evaluation offices. GEF agencies are responsible for projects, programs, and agency portfolio evaluation. GEF agencies are required to develop M&E plans and performance and results indicators for individual projects and programs. The GEF EO stream of evaluative work involves country portfolio, thematic, performance, and impact evaluations. Each evaluation will assess results (outputs, outcomes, and impact) according to five major criteria: relevance, effectiveness, efficiency, results, and—where possible—sustainability.
- The **Independent GEF Evaluation Office**, GEF’s backbone: provides a basis for decision making on amendments and improvements of policies, strategies, program management, procedures, and projects; promotes accountability for resource use against project objectives; documents and provides feedback to subsequent activities; and promotes knowledge management on results, performance, and lessons learned. Independent evaluations.
- **GEF’s M&E policy**: in line with international standards, it establishes norms, standards, and minimum requirements for all projects presented to the council. It covers project design, implementation, and evaluation. M&E processes and activities are informed by the **results-based management framework** (RBM) that was approved by the council in 2007. The framework builds on the strategic programming that is defined at the beginning of the replenishment period for each focal area, which outlines objectives, expected outcomes, and related tracking indicators

Regional Recipient Fund

Congo Basin Forest Fund (CBFF)

SYNOPSIS	Description	Multi-donor funding mechanism established to provide financing for projects likely to alleviate poverty and address climate change by reducing the rate of deforestation in Congo Basin forests by empowering people and institutions to manage and preserve them. Operational as of 2008.
	Funding and donors	US\$165 million grant from the UK and Norway
	Focus	Mitigation – REDD
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • The Governing Council defines strategic directions, oversight and actively reviews and endorses proposals. It encompasses broad representation⁴⁷ while ensuring African ownership and alignment with existing organizations and activities in the Region. Decisions are made by consensus or by simple majority vote. Civil society is also represented by a voting member. • Board of Directors is primarily responsible for the general operations of the CBFF, and will serve as the decision-making organ for certain operational matters according with the provisions approved Framework Documents. • Secretariat: manages and oversees daily operation and is responsible for the initial assessment of proposals. • Trustee and administrator: AfDB
	Implementing entities/ modalities	Governments, sub-sovereign entities, civil society institutions, and private sector institutions. Payments to projects will only be made if agreed performance targets are met.
	Eligibility requirements	<p>The CBFF criteria for eligibility are provided by the CBFF Operational Procedures.</p> <ul style="list-style-type: none"> • Eligible recipients: governments, civil society organizations duly registered in a Congo Basin country, community-based organizations, NGOs, the private sector, and private forestry sector operators and institutions. Proposals are accepted from one or several partner organizations working together. • Eligible projects are assessed against a range of criteria stated in the operational procedures of the Fund. They span from project goals to their innovative and transformational character. The commitment of Congo Basin countries to implement national strategies and action plans on deforestation will be critical in the eligibility to CBFF’s funds. The first call for proposals was issued in 2008.

⁴⁷ It comprises representatives from the AfDB, donor countries, civil society, the Central African Forests Commission (COMIFAC); the Economic Community of Central African States (CEEAC) as well as UNEP and others. See AfDB (2009) for details. Online at: <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Congo%20Basin%20Forest%20Fund%20-%20Operational%20Procedures%20EN.pdf>

ACCOUNTABILITY

- | | |
|---|---|
| 1. Results-based framework (RBM) | 1. A RBM approach was established. CBFF-financed activities are monitored and supervised via a results-based approach, encompassing a project logical framework with defined performance indicators. |
| 2. Monitoring and evaluation (M&E) | 2. The CBFF is subject to the AfDB independent evaluation system; evaluation reports are made available for the AfDB Board of Directors. |
| 3. Environmental and safeguards standards | 3. All CBFF-funded projects apply AfDB safeguard policies, as well as fiduciary and financial management systems.
AfDB staff assesses and checks project compliance during the preparation and implementation phase. |

Regional Recipient Fund

Amazon Fund (AZ)		
SYNOPSIS	Description	The Amazon Fund is aimed at raising donations to prevent, monitor, and combat deforestation, as well as to promote the preservation and sustainable use of forests in the Amazon Biome.
	Funding and donors	US\$102.9 million deposited by Norway, Germany and Petrobras. Another US\$361 million in donations to the Amazon Fund formally committed . 31 approved projects, amounting to US\$156 million. By July 2012, the amount disbursed was equivalent to US\$48 million.
	Focus	Mitigation – REDD
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> Brazil has full ownership of the Fund with limited involvement from donor countries. The Fund is managed by BNDES, the Brazilian Development Bank. BNDES is responsible for raising funds, analyzing, approving and contracting projects, monitoring projects and rendering accounts. BNDES is permitted to retain 3 percent of proceeds from the Amazon Fund to cover costs related to managing the fund. Applications are first assessed by BNDES’s Priority Department of the Planning Division and a committee of senior executives. If approved at this instance, a technical recommendation for approval or rejection is then made by the staff of the Amazon Fund to the board of directors of BNDES. Steering committee, COFA, to set guidelines and priorities for the disbursement of funds, including assessing projects against the guidelines and monitoring the results obtained. The main policy document is the Guidelines and Criteria for the application of the Amazon Fund. BNDES acts as Executive Secretariat and a representative from federal government as the Chair. <p>A technical committee, CTFA, is appointed by the Ministry of Environment and charged with certifying reduced emissions from deforestation calculations made by the National Institute of Space Research and the Brazilian Forest Service.</p>
	Implementing Entities/ modalities	Donations to the fund are performance based , paid only if reduced deforestation is demonstrated and only if deforestation in the year prior to payment is lower than the average for the previous 10 years.
	Eligibility requirements	<p>Eligible projects must:</p> <ul style="list-style-type: none"> directly or indirectly contribute to reducing deforestation; up to 20 percent can be used to support projects which develop systems for monitoring and controlling deforestation in other Brazilian biomes or other tropical countries. meet the various guidelines and criteria for the application of the Amazon Fund, including the Results Framework of the Amazon Fund. meet the operational criteria of BNDES. <p>GHG emission reductions corresponding to the Amazon Fund donations may not be negotiated in carbon markets.</p>

ACCOUNTABILITY

1. Results-based framework (RBM)
2. Monitoring and evaluation (M&E)
3. Environmental and safeguards standards

1. A RBM is in place.
2. **M&E:** BNDES is required to report to the SC twice per year on the fund's performance and fundraising progress. An external audit of the fund is carried out annually to verify proper appropriation of funds. On completion, projects are required to prepare a report and a project impact assessment of the environmental results attained. Representatives of BNDES and the donors to the fund have an annual meeting after the publication of the annual report to discuss the progress of the fund; issues of special concern for the implementation of the fund; and plans for changes in the SC criteria for the fund.
Projects supported by the fund must abide by the guidelines of the 2008 Sustainable Amazon Plan (PAS) and the 2004 Action Plan for Prevention and Control of the Legal Amazon Deforestation (PPCDAM).

National Climate Funds

Guyana REDD+ Investment Fund (GRIF)		
SYNOPSIS	Description	The GRIF is a multi-donor trust fund for the financing of activities identified under the government of Guyana's Low-Carbon Development Strategy (LDC).
	Funding and donors	US\$250 million pledged by Norway based on a results-based approach.
	Focus	Mitigation REDD
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • Steering Committee: is the governing body of the GRIF that makes all funding decisions. It is composed of representatives of the governments of Guyana and Norway (Trustee, Partner Entities, and civil society may participate but only as observers). • Partner Entities are responsible for submitting project proposals to SC; they receive GRIF financing and follow project implementation. • Trustee: IDA. It transfers funds to Partner Entities upon project approval.
	Eligibility requirements	<ul style="list-style-type: none"> • Eligible projects: projects included in Guyana's LCDS are eligible for GRIF financing. • The LCDS sets out the projects and sectors of strategic importance to the development of a low-carbon economy in Guyana identified through a national consultation process.
	Implementing entities	Guyanese ministries, agencies, or any other eligible entity.
ACCOUNTABILITY	<ol style="list-style-type: none"> 1. Result-based framework (RBM) 2. Monitoring and evaluation (M&E) 3. Environmental and safeguards standards 	<ol style="list-style-type: none"> 1. The GRIF secretariat and partner entities will track and report on the results-based frameworks and performance indicators developed and agreed upon at the project level. 2. An independent verification of results is in place, as donor contributions are results-dependent. 3. Principles and standards of the partner entity concerned with a given project are applied.

National Climate Funds

Indonesia Climate Change Trust Fund (ICCTF)		
SYNOPSIS	Description	The ICCTF is a financial mechanism created by the government of Indonesia (GoI) with the aim of aligning international climate finance with national investment strategies and facilitating private sector engagement.
	Funding and donors	<ul style="list-style-type: none"> • US\$18.47 pledged by Australia, the United Kingdom, and Sweden.
	Focus	Mitigation, REDD, adaptation
POWER AND RESPONSIBILITY	Decision making	<ul style="list-style-type: none"> • Administrator: Ministries of Planning (BAPPENAS) and Finance. • Trustee: UNDP on an interim basis. It manages and channels granted funds. • Steering Committee (SC): responsible for management, strategic guidance, and operational guidelines. It approves/rejects projects. <p>It consists of representatives from donors and representatives from the Government of Indonesia (from different ministries) and two civil society organization non-voting members.</p> <ul style="list-style-type: none"> • Secretariat: composed of technical experts, it carries out day-to-day operations. • Technical Committee: support secretariat and committee.
	Eligibility requirements	<ul style="list-style-type: none"> • Eligible recipients: sectoral ministries and local governmental bodies are invited to—either alone or in partner with other parties—submit proposals. • Eligible projects: theme: energy, forestry, and peatlands, adaptation and resilience • Candidate projects assessed against selection criteria approved by the SC. In the first batch of projects approved, standard criteria such as impacts, sustainability, and scalability, as well as whether the projects were high priority for the ministries were considered.
	Implementing Entities	Proponents or subcontracted to third party through bidding process.
ACCOUNTABILITY	<ol style="list-style-type: none"> 1. Result-based framework (RBM) 2. Monitoring and evaluation (M&E) 3. Environmental and safeguards standards 	<ol style="list-style-type: none"> 1. M&E carried out by the Technical Committee and reports submitted to the SC. An independent auditor appointed by the Government of Indonesia will audit funds used by ministries; one appointed by the SC will audit compliance with policies. 2. Annual review reports and final program report will be prepared and made public. 3. No explicit safeguard policies are yet in place. <p>Potential impacts are considered by the Technical Committee when reviewing project proposals.</p> <p>The principles of the Jakarta Commitments Fund should be followed.</p>

Annex III: Challenges and Outcomes of the Green Climate Fund (GCF)

Negotiations

The Cancun Agreements in December 2010 formalized a collective commitment by developed countries to provide new and additional funding for action on climate change in developing countries. Beyond committing to the goal of mobilizing jointly US\$100 billion per year by 2020, the Cancun Agreements state “[...] funds provided to developing countries may come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources” (UNFCCC, 2010). They also established the GCF, and set a “Transitional Committee for the design of the Green Climate Fund” (TC), with the ambitious agenda of developing a detailed proposal on a number of design and operational aspects for approval to COP 17.

In Durban, the governing instrument of the GCF was adopted. The GCF is designated as an operating entity of the Financial Mechanism of the Convention, accountable to and functioning under COP guidance. Its main features are (as per Decision X3/CP.17):

- **Board.** 24 members, active observers from civil society and private sector, equal representation of developed and developing countries.
- **A variety of funding windows.** The GCF’s initial funding windows cover adaptation and mitigation, but the Fund can also finance capacity building and similar activities for countries with limited resources. The Board is able to create windows to fund other programs over time, including technology transfer and the reduction of emissions from deforestation and forest degradation.
- **Country ownership.** National designated authorities will drive the funding process, recommending funding proposals to the Board in the context of their national climate change strategies and plans.
- **Multiple and simplified access to finance.** Recipient countries are granted direct access through accredited national implementing entities; in addition, multilateral agencies such as the MDBs figure as implementers. Simplified processes for certain activities (e.g., small scale).

- **Catalyzing additional public and private finance.** The GCF will seek to catalyze additional finance through its activities at the national and international levels.
- **Engagement of private sector.** A dedicated private sector facility operates separately from the two initial funding windows and provides financing directly and indirectly to private sector mitigation and adaptation activities at national, regional, and international levels. The facility's operations need to be consistent with a country-driven approach; as such, recipient countries will designate national authorities to review proposed projects to ensure alignment with national priorities.
- **Monitoring & Evaluation.** Regular monitoring of impacts, efficiency, and effectiveness of GCF funded projects and programs, within a results framework established by the Board and an independent evaluation unit.

Annex IV: Sample of NDBs' Activities in Climate Finance and Access to International Climate Funds



Climate Financing Activities					
<i>Climate financing activities</i>	Made concessional loans	<i>No</i>	<i>Sector lending distribution</i>	Energy	<i>0 percent</i>
	Made commercial loans	<i>Yes</i>		Transportation	<i>0 percent</i>
	Provided grants	<i>No</i>		Agriculture	<i>100 percent</i>
	Provided other instruments	<i>No</i>		Tourism	<i>0 percent</i>
	Total lending (09-11)	\$220,000		Other	<i>0 percent</i>
<p><i>Notes: Small reforestation projects on cattle pasture "silvopastoril."</i></p> <ul style="list-style-type: none"> <i>Terms of financing: low-interest loans</i> <i>Bank's contribution with own resources in support of this facility. Local currency. 12 year tenor including 2 year grace period</i> 					
Utilization of International Climate Finance					
Accessed international climate funds		<i>No</i>	<p>Notes: Terms and conditions are not more favorable for climate investments. <i>No access to international climate finance resources.</i></p>		
<i>Through grants</i>		<i>No</i>			
<i>Through low-interest loans</i>		<i>No</i>			



Financing Activities					
Climate Financing activities	Made concessional loans	Yes	Sector lending distribution	Energy	-
	Made commercial loans	No		Transportation	-
	Provided grants	Yes		Agriculture	-
	Provided other instruments	No		Tourism	-
	Total Lending (09-11)	\$2,517,817,879		Other	-
<i>Notes: PROVERDE program reported without details.</i>					
Utilization of International Climate Finance					
Accessed international climate funds	No	Notes: Terms and conditions are more favorable for climate investments. None			
<i>Through grants</i>	No				
<i>Through low-interest loans</i>	No				



Financing Activities					
Climate financing activities	Made concessional loans	No	Sector lending distribution	Energy	-
	Made commercial loans	No		Transportation	-
	Provided grants	No		Agriculture	-
	Provided other instruments	Yes		Tourism	-
	Total lending (09-11)	\$7,954,000		Other	-
<p>Notes: Starting in 2011, Bancoldex has decided to open a special product to finance climate and environmental projects. Bancoldex within its portfolio of products and services includes credit lines that serve national and local needs for fixed investment and working capital for various projects including environmental business of micro, small, medium and large enterprises in all economic sectors. Within these financing alternatives Bancoldex has three lines of credit dedicated to environmental issues since 2011:</p> <ul style="list-style-type: none"> - “Desarrollo Sostenible” (Sustainable Development), - “Bogotá Banca Capital Impacto Ambiental” (Bogota Environmental Impact), and - “Modernización Empresarial” (Business Modernization). <p>These credit lines were structured with favourable financial conditions:</p> <ul style="list-style-type: none"> - Long term (until seven, five and ten years respectively) - Grace period (Until one year, six months and three years respectively) - Low rates <p>In specific case of “Desarrollo Sostenible,” the rate curve is inverted. That condition implies that “if you want more term, the rate is lower.”</p>					
Utilization of International Climate Finance					
Accessed international climate funds	Yes	<p>Notes: Terms and conditions are more favorable for climate investments. With resources of CTF, Bancoldex designs and implements financial instrument with a component of grants. The projects that Bancoldex will finance are:</p> <ul style="list-style-type: none"> • Reconversion of public transport in Bogota (diesel technology to hybrid technology) • Energy efficiency program (specifically in hotel and hospital sectors) 			
Through grants	Yes				
Through low-interest loans	Yes				



Climate Financing Activities					
Climate financing activities	Made concessional loans	Yes	Sector lending distribution	Energy	0 percent
	Made commercial loans	Yes		Transportation	57 percent
	Provided grants	Yes		Agriculture	8 percent
	Provided other instruments	Yes		Tourism	0 percent
	Total Lending (09-11)	\$11,050,710		Other	35 percent
<p><i>Notes: Endorses a special program called Empresa Renovable, with KfW funding, which contributes to improve the environmental situation by promoting energy efficiency and renewable energies through financing with preferred conditions (longer terms and competitive interest rates). The Program also provides technical assistance for investments in: environmental reconversion, energy efficiency and renewable energies. The maximum amount to be financed is up to 80 percent of the total investment.</i></p> <p><i>Purpose of Credit / Max. Term / Max. Period of Grace</i></p> <ul style="list-style-type: none"> - Working Capital / 4 years / 1 year - Investments in Capital / 12 years / 3 years - Constructions and infrastructure / 12 years / 3 years 					
Utilization of International Climate Finance					
Accessed international climate funds	No	Notes: Terms and conditions are more favorable for climate investments. No access to CIF reported.			
Through grants	No				
Through low-interest loans	No				

Climate Financing Activities					
Climate financing activities	Made concessional loans	Yes	Sector lending distribution	Energy	-
	Made commercial loans	No		Transportation	-
	Provided grants	No		Agriculture	-
	Provided other instruments	Yes		Tourism	-
	Total lending (09-11)	\$31,529,000		Other	-
<p>Notes: Key sectors include renewable energy and energy efficiency, public transportation of passengers, cargo transportation, water and sewer management, solid waste management, forestry, agricultural improvements, climate change adaptation, and disaster risk management (no distribution reported).</p> <p>BNDES offers lower IR to finance renewable energy, more efficient equipment, urban transportation, and forest restoration. With the Amazon Fund concede grants to reduce deforestation and degradation in the Amazon Forest.</p>					
Utilization of International Climate Finance					
Accessed international climate funds	No	<p>Notes: Terms and conditions are more favorable for climate investments. The main objective of the Amazon Fund (source of international climate finance) is to provide support to projects to prevent, monitor, and combat deforestation, as well as for the conservation and sustainable use of forests in the Amazon Biome.</p> <p>BNDES is the manager of the concessional loans of the National Climate Fund in Brazil. The objective of BNDES is to ensure funds to support projects or studies aimed to promote climate change mitigation and adaptation to its effects. The climate fund supports projects in six sectors: efficient transport modals, efficient machinery and equipment, renewable energy (solar, ocean, and biomass), waste management with power generation, charcoal and combating desertification. Additionally, the bank offers special credit lines for renewable energy, energy efficiency, and forest restoration.</p>			
Through grants	Yes				
Through low-interest loans	Yes				



Financing Activities					
Climate financing activities	Made concessional loans	No	Sector lending distribution	Energy	-
	Made commercial loans	Yes		Transportation	-
	Provided grants	Yes		Agriculture	-
	Provided other instruments	Yes		Tourism	-
	Total lending (09-11)	\$3,432,900		Other	-
<p><i>Notes: COFIDE aims to become a leader in sustainable development financing and is developing strategic alliances with different local and overseas institutions, in order to assure the success of a new product called the Green Projects Financing Programme, designed to finance renewable energy projects, programs for natural gas conversion, rainforest preservation, solid waste recycling, and wastewater treatment, among other programs.</i></p>					
Utilization of International Climate Finance					
Accessed international climate funds		No	<p>Notes: Terms and conditions are not more favorable for climate investments. No additional information reported.</p>		
Through grants		No			
Through low-interest loans		No			

Financiera Rural

Financing Activities					
<i>Climate financing activities</i>	Made concessional loans	Yes	<i>Sector lending distribution</i>	Energy	-
	Made commercial loans	No		Transportation	-
	Provided grants	Yes		Agriculture	-
	Provided other instruments	Yes		Tourism	-
	Total lending (09-11)	\$5,519,000		Other	-
<p>Notes: Forestry Program provides loans tailored for the forestry sector. Program conditions include:</p> <ul style="list-style-type: none"> - maturity rates of up to 20 years (the longest maturity rates offered by the bank,. - seven-year grace period, and - Interest rates are set at a range of 8.99 to 15 percent. <p>In addition, it allows tree biomass to be offered as a source of collateral. Furthermore, this program has access to two different sources of liquid collateral funds that can be used to facilitate credit access. The first liquid collateral fund is targeted for investments in forest plantations and the second collateral loan can be used in the case of community forest enterprises. Financiera Rural also promotes and favors technified irrigation. It works with the Ministry of Agriculture as a technical agent to channel subsidies to its clients to be used for the purchase of technified irrigation systems.</p> <ul style="list-style-type: none"> - Since the subsidy only pays for part of the total cost of the irrigation system, Financiera Rural provides the remaining amount in favorable long-term loans (3–5 years). 					
Utilization of International Climate Finance					
Accessed international Climate Funds	Yes	<p>Notes: Terms and conditions are more favorable for climate investments. Will channel funding from the Forest Investment Program, which is a specialized program within the Climate Investment Funds (CIF). The funds will be given partly in grants and partly in concessional funding.</p>			
Through grants	Yes				
Through low-interest loans	Yes				

Climate Financing Activities					
Climate financing activities	Made concessional loans	No	Sector lending distribution	Energy	38 percent
	Made commercial loans	Yes		Transportation	0 percent
	Provided grants	No		Agriculture	0 percent
	Provided other instruments	No		Tourism	32 percent
	Total lending (09-11)	\$43,318,000		Other	31 percent
<p>Notes: In December 2010, FINDETER created a special loan program for energy efficiency and climate change mitigation with the objective of financing activities that would help in the reduction of GHG. This program finances projects or investments for:</p> <ul style="list-style-type: none"> • Reduction of energy consumption • Efficient generation of energy through renewable sources • Reduction of carbon emissions • Projects for CDM <p>Financial conditions of the program: Max total loan is US\$15; loan term is max 5 years, including a grace period of max 1 year for capital. IR to Intermediaries: IPC + 3.5 percent E.A. o DTF + 1.95 percent T.A.</p> <p>Final IR: Negotiated between the final beneficiary and the intermediary bank, this loan program has financed one loan operation. This operation took place in August 2011 and was valued at US\$200,000.</p>					
Utilization of International Climate Finance					
Accessed international climate funds	Yes	<p>Notes: Terms and conditions of climate finance are more favorable.</p> <p>Recently the IDB granted FINDETER two technical cooperation mechanisms. The first is developing a product that will assist projects focused on reducing carbon emissions. The second is developing a system that will measure the environmental and social risk of the projects that are seeking financing from FINDETER.</p>			
Through grants	Yes				
Through low-interest loans	No				



Climate Financing Activities					
Climate financing activities	Made concessional loans	Yes	Sector lending distribution	Energy	82 percent
	Made commercial loans	No		Transportation	0 percent
	Provided grants	Yes		Agriculture	10 percent
	Provided other instruments	Yes		Tourism	0 percent
	Total lending (09-11)	\$91,075,900		Other	8 percent
<p>Notes: Established in 1954, Trust Funds for Rural Development (FIRA) is a second-tier development bank that offers credit and guarantees, training, technical assistance, and technology-transfer support to the agriculture, livestock, fishing, forestry and agribusiness sectors in Mexico. Originally, FIRA was established with the creation of FONDO (Fondo de Garantía y Fomento para la Agricultura, Ganadería y Avicultura). Subsequently, three other trusts were created and integrated to fulfill FIRA's current structure:</p> <ul style="list-style-type: none"> ▪ FONDO (1954) (Fondo de Garantía y Fomento para la Agricultura, Ganadería y Avicultura): Focused on mobilizing resources to the primary sector through short-term financing, targeted for working capital. ▪ FEFA (1965) (Fondo Especial para Financiamientos Agropecuarios): Financing, subsidies, and other services for production, collection, and distribution of goods and services through long-term financing for the acquisition of machinery, equipment, installations, and others. ▪ FEFA (1972) (Fondo Especial de Asistencia Técnica y Garantía para Créditos Agropecuarios): Identification, evaluation, guarantees, technical assistance, supervision, training, and technology transfer services targeted to improve the sector's development and credit payback. • FOPESCA (1989) (Fondo de Garantía y Fomento para las Actividades Pesqueras): Focused on channelling FIRA's resources toward the fisheries sector. 					
Utilization of International Climate Finance					

Accessed international climate funds	Yes	<p>Notes: Terms and conditions are more favorable for climate investments.</p> <p><i>KfW financed on a zero return basis the early stages of one of the PoAs that FIRA is proposing to coordinate and also provided expertise on the structure of the program and an assessment of its potential market.</i></p>
Through grants	No	<p><i>Alongside the IDB, FIRA is currently working to develop, through concessional funds, a portfolio analysis and an environmental and social risk management system.</i></p> <p><i>UNEP is providing an external expert consultant to train FIRA's employees (sales employees) in climate change mitigation projects and is also providing its expertise in climate change mitigation project structuring, especially to work with voluntary carbon markets. Finally, a study on FIRAs carbon project portfolio is taking place to analyze which project activities yield the highest mitigation potential.</i></p>
Through low-interest loans	No	<p><i>With funds from the Ministerio de Industria, Turismo y Comercio de España, FIRA is currently collaborating to obtain a report on the viability to implement a program of Energy Efficiency and water preservation in the dairy industry of Mexico.</i></p>

Annex V: Case Studies of NDB Instruments in Climate Finance

Case Study 1: Unlocking domestic private finance by channelling international partners' climate-related funds to local financial institutions

El Banco de Desarrollo de El Salvador (Bandesal) in 2006 established the *Empresa Renovable* financing program, which aims to promote micro, small, and medium-sized enterprise investments in industrial energy conversion, energy efficiency, and renewable energies (solar panels and small hydro).⁴⁸ Developed and financed with resources of KfW Entwicklungsbank, the program entails:

- a grant for technical assistance, to increase knowledge and overcome capacity barriers; and
- a credit line (Tier 2) at preferred terms and conditions, to overcome the lack of long-term finance at competitive rates for investment in these sectors.⁴⁹

The technical assistance grant covers a portion of the costs of feasibility studies and consultancy services for an amount that varies according to the type of intervention supported: up to US\$4,000 for energy conversion and energy efficiency projects and up to US\$30,000 for RE projects. Private sector applicants cover the remaining costs, contributing at least 25 percent of the costs of the former projects and 50 percent of the costs of the latter. These contributions are fully reimbursed to applicants that ultimately request and use the associated credit line.

The credit line, which covers up to 80 percent of the total investment, is characterized by a long-term repayment, with a grace period up to three years and a competitive interest rate fixed over the entire term of the loan. The fixed interest rate applied to LFIs, the project implementing agencies, amounts to 3.6 percent, and LFIs are asked to add, at a maximum, 4 points of intermediation margins to ensure the competitiveness of the line.

⁴⁸ Eligible sectors include transport, manufacturing, mining and quarrying, service (hotels, waste management, etc.), and agriculture (poultry, pigs, cattle, fishing).

⁴⁹ The list of eligible projects is available on BANDESAL web site at: www.bandesal.gob.sv

Table A-1: Bandesal’s Empresa Renovable Terms and Conditions⁵⁰

Purpose of credit	Maximum term	Maximum grace period⁵¹
Working capital	4 years	1 year
Capital investment (i.e., machinery, equipment, etc.)	12 years	3 years
Construction and infrastructure	12 years	3 years

In addition, if investors need complementary guarantees to improve their access to credit, they can benefit from the Guarantee Fund (PROGAPE) managed by Bandesal, or the Mutual Guarantee Company (Sociedad de Garantías Recíprocas G&S). Both guarantors can offer credit guarantees under favourable conditions.⁵²

In the past three years, Bandesal’s Empresa Renovable has deployed almost US\$11 million in loans, and US\$308,408 in technical assistance grants, financing about 70 companies at an average interest rates of 7 to 8 percent, 1 to 2 percent lower than the average market rate⁵³ and, moreover, fixed in the mid- and long-term as opposed to the market rate ones. This initiative has mobilized about US\$6 million in private actors.

Households recently became eligible for the program for investments in renewable energies or energy efficiency interventions in their houses (i.e., for the use of solar energy for households’ electrical system). Broadening the audience target implies enhancing the private finance leverage effect potential of this initiative.⁵⁴

⁵⁰ For further details see Bandesal web site at: <https://www.bandesal.gob.sv/>.

⁵¹ Since 2012, Bandesal has also a credit line for Tier 1 “Energy Generation” for RE projects, with repayment terms up to 20 years, and up to 5 in grace period.

⁵² PROGAPE provides guarantees of up to 70 percent and the G&S of up to 100 percent. They charge an annual fee for the services that ranges between 2 to 3.5 percent of the amount guaranteed.

⁵³ The average interest rate (2009–2011) in market rate loans with one year or more term is about 9 percent.. Source: Banco Central de Reserva de El Salvador at: <http://www.bcr.gob.sv/esp/>.

⁵⁴ It should be noted that since the Law on the financial system (Ley del Sistema Financiero para el Desarrollo) came into effect on January 2012, Bandesal can directly offer the Empresa removable credit line to final end-users.

Case study 2: Risks management tools to remove barriers to investment in low-carbon projects, thereby leveraging private capital for climate change mitigation.

The Fideicomisos Instituidos en Relación con la Agricultura -FIRA (Trust Funds Bank for Rural Development) – a Mexican second-tier development bank – has historically acted as risk-taker, offering guarantee products to Tier 1 banks and other financial intermediaries to share the risk of lending, hence facilitating access to credit to local private investors.

Along with funding, the Bank also offers training, technical assistance and technology-transfer support for the implementation of projects in the agribusiness sectors, livestock, fishing, forestry and related industries. Its portfolio of activities, mainly directed to benefit small and medium producers, include promoting investments in projects with mitigation and adaptation purposes as part of its mission to promote Mexico's sustainable development⁵⁵.

In 2011, with the aim to incentivise the participation of financial intermediaries in 'green' investment, FIRA and the Mexican Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), opened up a guarantee fund, FONAGA Verde.

The Fund's originator and has been designed from FIRA, which noticed private banks' reluctance in financing renewable energy projects owe to the lack of knowledge and understanding about these technologies. The Bank is in charge of operating the Fund within the National Strategy for Energy Transition and Sustainable Use of Energy, so-called Bioeconomía⁵⁶.

FONAGA Verde is a loan guarantee program that aims to cover first credit defaults in renewable energy and biofuel generation projects. With an initial capital base of US\$18 million (249.5 million pesos), financed with resources of the Energy Transition and Sustainable Use of Energy Fund, it operates through reserves distinct for type of intermediary and credit. It has two

Since then, in fact, Bandedal, can provide Tier 1 loans. Up to date (May 2012), no Tier 1 loans have been granted as the corresponding new policies and procedures are currently being revised, and are yet to be approved by the recently constituted Board of Directors of Bandedal. Source: personal communication with Bandedal on May 2012.

⁵⁵ In 2011 FIRA participated in a total of 405 projects related to the efficient use of energy, renewable energy, forestry, and the reduction of GHG, as well as water conservation projects that help to adapt to the consequences of climate change, in 30 states of Mexico, with over US\$108 million generating investment of at least US\$183 million for producers and Mexican companies. The Bank reported that 16,933 producers benefited from these. Source: Personal communication with FIRA on July 2012 and FIRA's web site at: <http://www.fira.gob.mx>

⁵⁶ For additional information see <http://www.firco.gob.mx/proyectos/bioeconomia/paginas/proyecto-de-bioeconomia.aspx>

sub-accounts covering 14.29 percent of the value of short-term working capital credits, and 20 percent of long-term fixed investments ones⁵⁷.

The maximum amount of the reserve per project is established at 10 percent of the Fund's initial capital base implying that a single project can have reserve up to about US\$1.8 million (23 million pesos). This ensures that the highest number of projects possible can benefit from fund's resources, preventing the concentration of all of them in just a few interventions.

Eligible projects include bio-digester systems, cogeneration, solar thermal and photovoltaic systems, wind energy, small hydro, production of bioenergy crops, pilot plants for bio-fuels production, and any project technology that generates or uses renewable energy and/or biofuels. In the past two years (2010-2011), through FONAGA Verde FIRA has supported several projects throughout the whole country with more than US\$1.4 million in guarantees that have boosted over US\$11.2 million in renewables and biofuels direct investments⁵⁸.

Considering the ambitious Mexican objectives to reduce GHG emissions 50 percent below 2000 levels by 2050, and to increase the share of renewable energies in the country's energy mix to 35 percent by 2024 – as stated in the climate bill approved last April 2012 – investment in this sector are expected to increase a great deal in the coming years.

It is actually estimated that Fund has the potential to boost investments for about US\$200 million (2.5 billion pesos) (Mergers-Alliance, 2012).⁵⁹

FONAGA Verde is an important complement to the array of products offered by FIRA in the 'clean' sector. All the projects so far guaranteed with the Fund have received FIRA's loans, each of an average value of US\$490,000. One (1) out of three (3) are related to biodigester systems, confirming the Bank's primary role in the agribusiness sector. Among the other type of projects supported there are solar photovoltaic systems, wind and geothermal energy projects.

⁵⁷ For additional information see <http://www.fira.gob.mx/Nd/FONAGA%20VERDE.pdf> and ALIDE (2011).

⁵⁸ As of July 2012, the average value of the project guaranteed by Fonaga Verde amount to about US\$90,000. 93 percent of the funds' portfolio is represented by long-term loans. So far, there has not been any guarantee payment as all the lenders are repaying their loans as convened (personal communication made with FIRA in July 2012).

⁵⁹ See <http://www.sener.gob.mx/portal/Mobil.aspx?id=1938>.

Annex VI: Models of Leveraging

There is no single and universally applied definition of leverage, or methodology to calculate leverage ratios. There is uncertainty about how to best quantify its extent as the terms means many things to different people (Buchner et al., 2011; Brown et al., 2011). Narrowly, in generic financial terminology, leverage refers to the ratio of equity to a blend of debt. Financial institutions like MDBs, instead, measure it as the ratio of public to private co-financing, as they aim to understand and demonstrate the multiplier effect generated by their contributions. For a dedicated climate change fund like the Global Environmental Facility (GEF) the term can also go beyond its intervention, taking into account the resources mobilized at a second stage, as a result of the project financed e.g., in case of project replication (Brown et al., 2011).

The importance of leverage was particularly emphasized by the United Nations' High-Level Advisory Group on Climate Change Financing (AGF)—a group of experts tasked by the UN General Secretariat to develop practical proposals on how to significantly scale-up financing for mitigation and adaptation measures in developing countries. By using the concept of leveraging to determine the magnitude of total private investments to address climate change stimulated by public interventions (AGF, 2010a), the Group derived a methodology for calculating the potential leverage factors that can be exerted by a variety of public financing instruments, those commonly used by MDBs. This report does not seek to assess the validity of the AGF's estimates presented above, but rather tries to build up on them to derive the leverage effect potentially exerted by NDBs.

Existing Models of Estimating Climate Finance Leverage

NDBs have a variety of financial instruments available to facilitate climate investments. Many of the instruments are the same as the MDBs ones, but the conditions under which they are provided are different. For example, NDBs operate either directly into projects (referred to as Tier 1 lending or investing) or via financial intermediaries (Tier 2 lending or investing). Given the fact that NDBs are closer to the local financial institutions and better understand the risks they face, their ability to leverage is equal to or potentially better than that of MDBs for the same instruments.

The table below depicts the leverage factor, which can be applied across MDB instruments.

Category of MDB instrument	Estimated leverage factor
Non-concessional debt	2-5 x
Debt financed via grants	8-10 x
Direct equity	8-10 x
Equity financed via grants	20 x
Guarantees financed via grants	20 x

Source: AGF, 2010b; adapted from Brown et al., 2011.

For example, every US\$1 of non-concessional debt, that is, debt for which there is no grant portion, can mobilize between US\$2 and US\$5 of private capital. Similarly, direct equity into a project, alongside that of a project sponsor, is thought be able to draw 8 to 10 times this amount in private capital. Debt that carries a grant portion, that is, is a concessional/low-interest loan, is thought to leverage 8 to 10 times. It should be noted, however, that in this latter case, it is unclear how the AGF derived this leverage ratio (Brown et al., 2011).

Non-concessional “senior” debt tends to have a low to medium leveraging impact. This is especially the case where such instruments are provided *pari passu*. For smaller companies or projects with smaller funding requirements, the senior debt may be the largest component of the overall funding structure. In cases where the senior debt is provided as part of a larger syndicated funding structure, leveraging would be higher; however, small companies or projects do not typically fund themselves via syndicated structures, which are relatively complex, costly, and time-consuming to arrange.

Subordinated debt has more significant leveraging potential, since this funding instrument can be deployed in a highly tactical manner, tailored to fill crucial risk appetite gaps between more patient equity funders and less patient debt funders. Debt terms may be subordinated in terms of access to security, priority of debt repayment, length of repayment period, length of grace period before repayments, loan disbursement profile (i.e., first in-last out), loan covenants and events of default (including cross default), and a host of other possible parameters. In many instances, only a small amount of high-risk subordinated debt is needed in order to make the capital structure work for the other funders. The potential benefits to smaller companies and projects are no different and, arguably, even more important to the smaller end of the market as a valuable quasi-equity-type risk product.

Concessional loans, that is, debt financed through grants, have a greater leverage effect than non-concessional debt, as the grants can be blended with other sources of capital. Equity financed through grants can be seen as equity in a subordinated position, that is, with a lower hurdle rate, or in a first-loss position, as compared to private capital. However, there is some danger in confusing equity with a zero return hurdle and expectation of full loss of capital as effectively a grant.

The category of guarantees is considered above all as grant-based, with a significant leveraging impact. However, it can also be the case that guarantees, when appropriate risk-based guarantee fees are charged, are not a subsidized product but can earn a return.

Framework for Measuring NDB Climate Leverage

This section considers the comparative advantages and disadvantages of NDBs versus MDBs in catalyzing and leveraging private financing through the use of the different instruments at their disposal. This approach is intended to stimulate discussions, acknowledging that it requires further empirical evidence.

NDBs have a variety of financial instruments available to facilitate climate investments. Many of the instruments are the same as those that MDBs have, but the conditions under which they are provided are different. For example, NDBs operate either directly into projects (referred to as Tier 1 lending or investing) or via financial intermediaries (Tier 2 lending or investing).

Each instrument can have a grant component for which the leverage factor is different. The table below shows our estimate of the leverage factors for each instrument, building on those that have been proposed for MDBs. This table includes additional instruments, which are frequently available from NDBs, but for which no analysis on MDBs' use of these has been conducted (and therefore N/A is listed in the MDB column of leverage, such as Tier 2 instruments). The leverage factor assumes that the only private capital directly mobilized is that of other financiers, such as LFIs. Moreover, the leveraging potential that could exist by the combined use of a set of instruments has not been considered.

Estimated Leverage Factors for NDB Instruments

Category of instrument		MDB estimated leverage Factor	NDB estimated leverage factor
Tier 1	Non-concessional debt	2-5 x	2-5 x
	Debt financed via grants	8-10 x	8-10 x
Tier 2	Non-concessional debt	N/A	1 x
	Debt financed via grants	N/A	4-8 x
Tier 1	Direct equity	8-10 x	12-15 x
	Equity financed via grants	20 x	20 x
Tier 2	Direct equity	N/A	12-15 x
	Equity financed via grants	N/A	N/A
	Guarantee at non-concessional rates	N/A	4-8 x
	Guarantees financed via grants	20 x	25 x

Tier 1 loans (both non-concessional and concessional) apply the same leverage factor that has been proposed for MDBs, as there is no particular reason to consider that the ability of an NDB to draw private capital into projects is better or worse than MDBs. MDBs will have a better credit rating for foreign currency loans, which may entice foreign banks to lend alongside them. But, for LFIs in local currency, NDBs could have similar leverage.

Tier 1 loan instruments are considered to have more leverage impact than Tier 2 instruments. The reason is that as a direct lender, the NDB can influence directly the project. S Tier 2 non-concessional loan is a loan to a financial institution which is on-lent at market-based terms, in which the NDB takes on the credit risk of the LFI. The LFI uses the NDB as a source of funding often to access long-term foreign currency funds. The leverage effect is 1:1, that is, it assumes there is no additional private capital from an LFI that is drawn into a project with this instrument, as it is filling a liquidity or funding need and not a credit gap. A Tier 2 concessional loan provides the same type of facility to the LFI but at low interest. In this instance, it can be blended with the LFI's own funds and on-lent to the end-project at a below-market rate. The extent to which the LFI will provide funds may vary but for the purposes of this report, we assume that the subsidized funding is evenly blended with non-subsidized funding. This results in a proposed leverage of 4 to 8 times.

Equity funding tends to have a medium to high leveraging impact, since equity is often the most challenging part of the capital structure to source. This is especially the case for smaller projects in less developed markets, where local private equity markets may be relatively underdeveloped and unsophisticated, while offshore equity providers tend to opt for larger

investments in relatively established projects. As a result, the equity leverage is assumed to be higher for NDBs than MDBs. Equity is either provided directly by the NDB in projects (Tier 1) or via a fund (Tier 2). The assumption made is that leverage factors are considered the same whether directly investing or via a fund, even though it is conceivable that investing via a fund could reach a broader audience, with a magnifier effect.

As for guarantees, the leverage factor will depend on the type of guarantee being offered. Guarantees which cover a particular risk or set of risks (e.g., technological or regulatory) and which are provided by an entity closer to that risk (i.e., NDBs) can be catalytic and offered on the basis of a non-concessional fee.

In all cases, it is reasonable to expect that the NDB's leverage factor will be higher than that of an MDB. NDB guarantees will be less likely to be called, thus less capital needs to be allocated, for two main reasons:

1. First, the NDB is an integral part of the host country government and, by virtue of this relationship, is in a position to anticipate—and possibly even influence—host country factors which could impact, directly or indirectly, the likelihood of a guarantee being called. For instance, local policy approaches and regulatory environments might improve the credit quality of climate-related projects, with an obvious example being feed-in tariffs for renewable energy projects. Therefore, the NDB's ability to help ensure a stable policy and regulatory environment over the term of a project loan or investment could help mitigate the risk of a guarantee being called.
2. Second, by operating directly and solely in the host country, the NDB intimately understands local market conditions and the potential impact that such conditions may have on the credit quality or commercial performance of a climate-related project. These conditions may include local labor conditions, permitting and approval processes, and local acceptance of proposed projects (e.g., wind farms or small-scale hydro dams). These factors may have less direct or sustained impacts than considerations such as tariff regimes, but are nonetheless important factors to be aware of and assess in determining the likelihood of a guarantee being called.

These NDB advantages support the rationale for a higher leveraging impact over MDB guarantee activity, of up to 8 times for guarantees for which market-rate guarantee fees are paid, and up to 25 times for guarantees financed via grants.