



Approach Paper

Comparative Evaluation

**of Three Green Lending
Projects**





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I. INTRODUCTION

- 1.1 **The IDB has long sought to promote private sector investment in key areas through credit lines to intermediary financial institutions (FIs).** Examples include lines to finance SMES, particular economic sectors (e.g. agriculture), mortgages or even specific type of investments (e.g. “green investments”). Recently, a number of credit lines have attempted to promote the adoption of “green” or “sustainable” practices. These “Green Lending” (GL) lines have mostly involved projects in energy efficiency and small renewable energy projects. To a lesser extent, GL lines have also sought to finance the adoption of sustainable practices in the other sectors (transport, agriculture, forestry or tourism *inter alia*).
- 1.2 **The development of GL occurs in the context of increased engagement with both climate change and the private sector.** Regarding climate change, the first efforts of the Bank began in 2007 with the creation of the Sustainable Energy and Climate Change Initiative (SECCI) and a related multi-donor fund in 2008.¹ In 2010, the Ninth Replenishment (AB-2764) further established a target of 25% of IDB funding for climate-change initiatives by 2015. In 2012, a climate change division (CCS) was created, and a full-fledged climate change strategy was approved so as to contribute to the attainment of the ambitious climate change goals embedded in IDB-9 (GN-2609-1). In parallel, IDB private sector engagement has increased dramatically since the 1990s, when the Bank started setting aside a part of its portfolio for non-sovereign guaranteed lending. From the initial support to the then recently-privatized public utilities, the private sector window of the Bank has since expanded its mandate to providing loans and guarantees to private firms and, particularly, to financial intermediaries.²
- 1.3 **In 2010, the Structured and Corporate Finance Department (SCF) created a special window for supporting GL.** The BeyondBanking program “aims at promoting principles of environmental, social and corporate governance sustainability in financial institutions in Latin America and the Caribbean” (Document PP-82). A specific line within the program—PlanetBanking—focused on lending for adaptation and mitigation of climate change. Through PlanetBanking IDB has approved 16 credit lines and guarantees for over US\$700 million in eleven countries of Latin America and the Caribbean. The PlanetBanking line represents the main source of GL in the private sector of the

¹ SECCI was created in March 2007 (GN-2435-1) with four pillars (Energy Efficiency/Renewable Energy; Biofuels; Carbon Finance and; Climate Change Adaptation) and a budget of US\$35.5 million for the period 2007-2009. In 2008 a multi-donor SECCI trust fund was created to complement the resources of the Bank. In 2012, the sustainable energy and climate change unit became a division (GA-232-38, par. 2.43)

² Specific strategies to engage the financial sector were proposed in 1999 (GN-1948-3) and 2006 (GN-1948-4).

Idb, though there has also been an intense work with sovereign-guaranteed lines through different national development banks (e.g. NAFIN, BANCOLDEX).³

- 1.4 This paper outlines an in-depth evaluation of three private sector green lending projects of the Bank. It complements the broader *Evaluation of IDB Group's Work through Financial Intermediaries* being done concurrently, which will review the broader portfolio of credit lines approved by all of the public and private sector windows of the Bank

II. EVALUATION QUESTIONS AND ACTIVITIES

- 2.1 **Three nested issues help to frame the analysis of the three green credit lines.** The first and most general issue is what the rationale is for a multilateral development bank (MDB) to lend directly to the private sector. The second issue is under what conditions a credit line is the preferable instrument for MDB private sector intervention. Finally an important issue is whether a credit line effectively deals with climate change as a development challenge.
- 2.2 **The rationale for an MDB to lend to the private sector is related to the existence of a market failure.** If markets worked efficiently, every project with a rate of return that exceeded the cost of funds could presumably be funded by financial institutions in the private sector. In those circumstances, IDB's involvement would be not only superfluous but possibly deleterious as the Bank would be using its privileged position in the financial markets to compete unfairly with private financial institutions. In practice, however, many projects that have high returns end up not being financed due to market failures such as externalities (e.g. carbon emissions),⁴ missing markets (e.g. lack of long term financing), or

³ The portfolio of green lines approved by CMF is almost as large as that of the private sector window.

⁴ Carbon emissions—a byproduct of economic decisions—lead to climate change and imply a cost to the rest of society. As such, carbon emissions are a textbook example of negative externality. A possible solution to the externality problem—though not the only one—is the creation of a market where the externality could be traded (see Coase, Ronald H. (1960), “The Problem of Social Cost”, *Journal of Law and Economics* 3 (1): 1–44). There have been several attempts at creating markets for carbon emissions, most of them only partially successful. Uncertainties regarding future climate policies have implied very low carbon values (in the order of US\$5-US\$10 per ton of CO² in the California or the European ETS markets). These are way below the US\$20-US\$25 that are estimated to be needed to generate the US\$100-US\$200 billion amount of the private investment. (See, for instance, the Report of the Secretary General's High-Level Advisory Group on Climate Change Financing.) This lack of alignment may deter some socially optimum investments if private returns are well below social returns. In general, correcting an externality would require not funding but concessional funding.

information asymmetries and behavioral biases⁵ (e.g. lack of knowledge/certainty of the project benefits). In general, different market failures would call for different solutions; information asymmetries may be tackled with a few demonstration projects, behavioral biases would probably require bans or subsidies, and tackling the climate change externality—in absence of a well-functioning carbon market—would also require subsidies. Thus, the relevance of the Bank intervention hinges critically on both the extent to which the project is addressing an existing market failure and whether the instrument used is the right one.

2.3 With regard to instrument choice, the private sector windows of an MDB have a number of available instruments, including equity investments, project finance, corporate lending, and technical assistance to either firms or FIs. In considering instrument choice in the projects reviewed, OVE will look at the motivations of FIs and the barriers they face in investing in green projects (see Table 1 for a preliminary sketch of possible motivations and barriers). In principle, credit lines to FIs allow the Bank to reach smaller clients, the cost of it being the intermediation fee charged by the FIs in the form of a credit spread.⁶ The implicit assumption behind this arrangement is that local FIs have certain advantages over the IDB, allowing them to be more efficient. In particular, by having a closer link to the ultimate borrower, local FIs may be more efficient in assessing risks, reducing origination and monitoring costs, and reducing the overall transactional costs of each individual sub-loan. The participation of a FI also changes the risk assessment for the MDB; in a credit line, the MDB takes the risk of the FI, while in individual sub-loans the MDB would take the ultimate beneficiary risk.

⁵ Information asymmetries could take several forms. It could be the case that not all agents have the same information (i.e. agents do not know how much they are saving) or even that they perceive information differently because of behavioral biases (e.g. bias against small savings that occur over a long period of time). As a consequence, even investments with theoretically high private returns may not be carried out at the end—irrespective of whether the externality is correctly priced or not. For instance, although it has been shown that replacing traditional light-bulbs is highly profitable, about 70% of the light bulbs in the US are not energy-saving.

⁶ A second potential benefit is related to the development of the local financial sector and the domestic financial markets in general. A good explanation of the rationale of working with local banks is given in the Bank policy for “Global Credit Operations”. Even when these operations are guaranteed by the government (investment loans), in practice they “are granted to intermediary financial institutions (FIs) or similar agencies in the borrowing countries to enable them to on-lend to end-borrowers (sub-borrowers) for the financing of multi-sector projects, and when their size does not warrant direct Bank handling” (PR-203). The specific objectives of global credit programs are i) to increase the supply and access to credit of SMEs; ii) to encourage FIs to become effective vehicles of mobilization, iii) to strengthen FIs technically, economically, financially and administratively.

Table 1 Incentives, Barriers and Instruments for IDB Intervention

Motivations	Barriers	Possible IDB Interventions
Short-term profitability	Uncertainty (demand, project returns and risks)	Technical Cooperation (Training, Market research)
Strategic positioning and niche lending (long-term profitability)	High opportunity cost of funds lent	Loans and Guarantees
Prestige and reputation	Fixed costs of opening a green line (e.g. new business unit, training)	Outreach and dissemination

- 2.4 **With regard to outcomes, changes in FIs portfolios are one important measure of the effectiveness of green credit lines.** In other words, the portfolio allocations of FIs with and without GL lines should look different as a result of the additional funding provided by the intervention.
- 2.5 **Drawing on the above issues, the two main questions to be addressed in this evaluation are:**
- i. Under which conditions are GL credit lines a suitable instrument to achieve the development goals of climate change mitigation and adaptation?
 - ii. Based on the evidence drawn from the three specific GL operations under analysis, were GL credit lines successful in increasing access to finance, and the quantity and quality of investments for climate change mitigation and adaptation?
- 2.6 **As a starting point, the evaluation will broadly review all SCF credit lines to financial intermediaries during 2008-2014 that had the explicit objective of promoting environmentally friendly investments.** These include 17 projects approved for a total of US\$763.5 million (see Table 2). This review will shed light on how green lines are understood by the Bank, the underlying rationale that led to the development of this intervention model, the particular conditions under which operations are done, the general characteristics of these projects, and the relation between these credit lines and other instruments used to address climate change (e.g. direct lending to firms, TCs, etc.). In addition to reviewing documents, OVE will interview IDB specialists who were involved in the origination and execution of GL projects. Literature relevant to the GL topic will be reviewed, including articles that discuss the use of credit lines as a development tool, the development of climate finance markets, and the barriers for the development of energy efficiency and renewable energies markets. The review will also include a contextual assessment of regulatory issues and constraints at the country level, and the work of other MDBs in this area.

Table 2. List of Projects

Year	Project Number	Project Name	Type	Approved (US\$)
2008	PE-L1065	Banco Continental Financing Facility	Loan	\$ 45,000,000
2009	DR-L1038	BHD Bank Lending Facility	Loan	\$ 17,500,000
2009	ME-L1069	BBVA Bancomer Green Facility	Loan	\$ 40,000,000
2009	PN-L1056	Banco General Green Facility	Loan	\$ 20,000,000
2010	AR-L1116	Banco de Galicia y Buenos Aires S.A. Sustainable Facility	Loan	\$ 30,000,000
2010	CR-L1044	Banco Promerica Financing Facility	Loan	\$ 15,000,000
2010	HO-L1067	Banco Ficohsa Sustainable Facility	Loan	\$ 10,000,000
2011	CH-L1065	BICE Bank - access2services Facility	Loan	\$ 50,000,000
2011	CO-L1104	Bancolombia Green Guarantee Mechanism	Guarantee	\$ 30,000,000
2011	HO-L1077	Banco Atlantida Green Line	Loan	\$ 20,000,000
2011	RG-L1038	BESI Lending Facility	Loan	\$ 50,000,000
2012	RG-L1033	Emerging Energy Latin America Fund II, L.P.	Loan	\$ 30,000,000
2012	RG-L1047	Green Line Banco Itau BBA S.A. *Nassau Branch*	Loan	\$ 100,000,000
2013	ME-L1136	Balam Fund I, L.P.	Loan	\$ 50,000,000
2014	BR-L1391	Banco Pine Green Line Partnership	Loan	\$ 75,000,000
2014	ME-L1150	Capital Markets solution for energy efficiency financing	Guarantee	\$ 127,077,181
2014	BR-L1413	Banco ABC Brasil Green Financing Partnership	Loan	\$ 100,000,000

2.7 **The core of the evaluation will be the detailed analysis of three green lending projects, each of which will result in an independent case study.** OVE selected operations CR-L1044 (Costa Rica), CO-L1104 (Colombia), and CH-L1065 (Chile), as they were implemented in markets of diverse sizes with different levels of financial depth and heterogeneous governmental policies regarding climate change. These operations will be assessed against their individual objectives, as stated in each loan proposal.

2.8 **The comparative project analysis will address issues of relevance, effectiveness and sustainability.** It will include: (i) a review of all available documentation (including due diligences, loan documentation, sub loan eligibility criteria, portfolio supervision documents, PSRs and XPSR where available) and of related loans and TCs; (ii) interviews of IDB's origination and portfolio supervision team, both in HQ and COFs; (iii) *in situ* interviews with clients and key expert informants from each country; (iv) a detailed analysis of the market in which each operation took place, using both qualitative and quantitative sources of information; (v) an in-depth analysis of the sub-loans and individual projects associated with each GL project—including whenever possible site visits and interviews with the final beneficiaries, to assess actual GHG mitigation resulting from the intervention; (vi) a review of E&S policies and safeguards, their alignment with IDB policies, and the consistency and verifiability of the environmental performance goals of these lines.

- 2.9 **The case studies will identify the specific barriers that hinder private involvement in RE and EE projects in each country, and determine if the GL operations helped to overcome them.** Both public information and (when available) commercial credit reports will be used to verify the market conditions before the establishment of the green credit lines, and the development of the market after each project. The project review will also clarify if FIs' portfolio decisions were altered by the IDB's intervention, and more specifically, if beneficiary FI's ended up financing more "green loans" as a consequence of improvements in their capacity to select, evaluate and monitor green loans as the result of the IDB loan.

III. TEAM AND TIMELINE

- 3.1 The report will be prepared by a team composed by Juan Manuel Puerta, Carlos Morales-Torrado, David Suarez and Ana Ramirez-Goldin. It is expected to be completed in mid-2015 in order to provide input to the broader evaluation of "*Evaluation of IDB Group's Work through Financial Intermediaries*" currently underway.