Financial instruments and key factors in climate finance: lessons and challenges for the national Development Banking

In climate finance, development finance institutions (DFIs) play a key role by offering various financial instruments covering both cross-cutting and specific sectors, such as agriculture, renewable energy, and climate change adaptation. These instruments are implemented directly through retail bank, through intermediaries in wholesale bank, or through a combination of both.

According to the recent ALIDE report (2025) on development financing from the DFI perspective, debt instruments are the most used and represent a significant part of financing in key projects. In renewable energy, debt instruments account for 89% of financing; in sustainable mobility, 83%; and in sustainable agriculture, 69%. These instruments include preferential loans, green bonds, and credit lines with favorable terms, such as low interest rates and long grace periods, tailored to the characteristics of each project. For example, in renewable energy, funds are allocated to infrastructure such as wind farms and solar plants; in sustainable mobility, they are allocated to the electrification of public transport; and in sustainable agriculture, they are allocated to the adoption of efficient and low-environmental-impact technologies.

Another important instrument is subsidies, which, although less common than loans, remain essential for supporting sustainable projects. Subsidies represent 31% of financing for sustainable agriculture, 17% for sustainable mobility, and 16% for renewable energy. Since they are non-repayable, they encourage the adoption of innovative practices, such as climate-resilient crops.

Guarantees and insurance also play a key role in covering financial risks, enabling private resources to be attracted to high-impact projects. This instrument represents 31% of financing for agriculture, 22% for sustainable mobility, and 21% for renewable energy. In addition, there are combined instruments that integrate debt, subsidies and guarantees, which, although they represent a moderate share, are strategic for mobilizing public and private resources toward complex projects. These instruments represent 19% of financing for agriculture, 11% for sustainable mobility, and 16% for renewable energy.

On the other hand, these financial instruments offered by the national Development Banks are notable for their favorable conditions, such as preferential interest rates, flexible terms, and broad financing coverage. However, the use of preferential rates has declined in some cases due to previous experiences that prioritized more economically efficient activities.

TABLE 1. Main types of financing used for renewable energy, agriculture, and sustainable transportation projects

MAIN TYPE OF FINANCING	SUSTAINABLE MOBILITY	SUSTAINABLE AGRICULTURE	RENEWABLE ENERGY
Subsidies	17%	31%	16%
Guarantees and insurance	22%	31%	21%
Combined instruments	11%	19%	16%
Debt instruments	83%	69%	89%
Other	28%	31%	16%

Despite this, some banks maintain them for strategic sectors or for producers without access to sufficient collateral. For example, Banco de la Nación Argentina (Banco Nación) and FIRA of Mexico offer discounts of up to five percentage points for small producers.

Loan terms vary depending on the type of financing and the activity supported. Working capital loans typically have terms of 180 to 360 days, while investment or fixed asset loans range from 2 to 7 years. In addition, some DFIs have implemented debt extension and restructuring mechanisms to mitigate the impact of emergencies, ensuring that producers do not face insurmountable difficulties at critical times. Some DFIs, such as Banco Nacional de Fomento de Paraguay, offer financing that covers up to 100% of the cost of certain projects, such as livestock, agricultural, or poultry farming activities, facilitating the participation of small producers in large-scale projects.

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The renewable energy sector is one of the highest priority sectors, accounting for 37% of financial products, with average terms of 13 years and coverage reaching 100% of the project. The climate change sector follows, representing 22% of financing, with terms of 12 years and coverage exceeding US$8.5 million. Agriculture and transportation receive 7% each, with terms of 10 and 5 years, respectively, and coverage of up to 90%. In addition to financial products, DFIs complement their offerings with consulting and technical advice services, which are essential to ensuring the viability of climate projects. These services include feasibility studies, specialized technical advice, and tailoring financial terms to meet the specific needs of each project.

For its part, the experience of the national Development Bank has highlighted the importance of several key factors that are essential for the success and effectiveness of climate finance programs. First and foremost, technical training is a fundamental pillar to ensure the sustainability and efficiency of funded projects. It's not enough for projects to be financially supported; they must also be equipped with the necessary knowledge and skills to be properly managed. Training in specific areas, such as clean technologies, environmental management, climate risk assessment, and sustainable agricultural practices, ensures that projects are not only

viable in the short term but can also generate lasting positive impacts, both environmentally and socially.

Adaptation to local contexts is another crucial factor for the success of climate finance programs. Each region, whether due to its geographic location, socioeconomic characteristics, or infrastructure, faces unique challenges that require tailored solutions. Specific climate conditions, community vulnerability to extreme events, the availability of natural resources, and technological and financial capabilities vary considerably across countries and regions. Therefore, climate finance programs must be designed to respect and adapt to these differences, ensuring that investments are relevant and effective in the local context. This involves adapting not only technological solutions but also financing strategies, taking into account local needs and priorities.

Multisectoral collaboration, involving public and private actors, civil society, local communities, and international organizations, is another key component for the successful implementation of climate finance projects. This collaborative approach allows for the leverage of a broader range of knowledge, resources, and perspectives, increasing the likelihood of project success and sustainability. Partnerships between governments and the private sector, for example, are essential for mobilizing large sums of investment, while the participation of local communities ensures that projects are appropriate and accepted, facilitating their implementation. Moreover, collaboration across different sectors, such as agriculture, energy, transportation, and water, makes it possible to address the complexity of climate challenges in a comprehensive and effective manner.

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Finally, financial innovation has proven to be a determining factor in climate finance. Instruments such as green bonds, which finance projects aimed at sustainability and climate change mitigation, and impact funds, which seek to generate social and environmental benefits alongside financial returns, are essential for mobilizing resources. These instruments allow for diversifying financing sources, reducing risks, and attracting investors who might otherwise be reluctant to engage in high-risk climate projects. The ability to mobilize both public and private funding is crucial to face the enormous climate challenges, especially in developing countries where resources are limited.

However, it should be noted that, despite the progress, significant challenges remain, especially regarding impact measurement and coordination among the various actors involved. Measuring the environmental and social impacts of climate finance projects remains a complex task, given that many of the solutions implemented are long-term and adequate indicators to assess their effectiveness are not always available. The lack of reliable data and the difficulty in predicting the future effects of projects complicate the measurement task, which can undermine transparency and accountability. Furthermore, coordination among the various actors involved in these projects—from governments to international organizations, development banks, the private sector, and local communities—remains a challenge. Therefore, only through joint action tailored to local realities will it be possible to move towards a more resilient, low-carbon future.