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Development finance institutions for sustainable industrial development

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Abstract

Given effective political guidance, solid policy directives as well as sufficient resources, development finance institutions (DFIs) have the DNA and capability to efficiently and innovatively foster sustainable development. Both a strong capital base and long-term balance sheet are necessary for a DFI to have the capacity to pursue consistent engagement and to support uncertain, risk-intensive projects that have the potential of driving sustainable development. Internally, DFIs must maintain and strengthen their organizational and technical autonomy based on collective decision-making processes. An innovative environment must be cultivated to open space for opportunities, to develop new solutions to introduce and implement operational procedures, financial instruments and analytical methods, with the aim of addressing the challenges associated with sustainable development projects. This requires targeted investment in continuous learning and the building and maintenance of credibility based on interactions with financial partners and financing beneficiaries.

Key Messages

- 1.** Development finance is not keeping pace with the growing SDG financing needs and the long-term focus required to accelerate sustainable industrial development.
- 2.** National development financial institutions can help bridge this gap as they possess the necessary DNA to efficiently and innovatively foster sustainable industrial development.
- 3.** A pro-sustainability development finance institution must invest in continuous learning and build and maintain credibility based on regular interactions with financial partners and financing beneficiaries.

Sustainable development presents both challenges and opportunities for industrial policies and development finance

Climate change and the energy transition are fundamental drivers of the renewed interest in industrial policy. The space for public action is currently wide open. Only little progress has been achieved in some industrial subsectors (e.g. wind energy) and the technological race is still underway; in others, the knowledge frontier is still relatively elusive (e.g. green hydrogen), calling for an accumulation of additional knowledge and risky projects and experimentation; while in still others, local idiosyncrasies are so manifest that innovative localized solutions are necessary (e.g. tropical deforestation). In other words, a significant share of initiatives that promote sustainability are fraught with uncertainty: projects may lack a track record of costs and returns; demand is not necessarily guaranteed; new markets and new firms have yet to emerge; infant industries face numerous challenges and risks, and institutional frameworks have yet to be consolidated. Consequently, many scholars are advocating for dynamic and effective public policies that target “green-oriented” industrial strategies.²

Publicly sourced climate finance (loans, grants, equity and guarantee instruments) take central stage in green industrial policies

There is widespread consensus that fixed and intangible green investments will need to be increased to promote sustainable development. Consequently—and given the above-mentioned uncertainties—publicly sourced climate finance (loans, grants, equity and guarantee instruments) take central stage in green industrial policies.

The role of development finance institutions

Given effective political guidance and solid policy directives as well as sufficient resources, development finance institutions (DFIs) have the DNA, profile and capability to foster sustainable development effectively and innovatively.

BOX 1.

What are Development Finance Institutions (DFIs)?

DFIs are mandated to promote a country's development process (or local spaces within a country), in groups of countries within a given geographical region or at the global level. Most are publicly owned and have a relatively stable (government-supported) funding base. Although their scale and scope might differ, DFIs are multipurpose institutions that (i) support various types of projects and beneficiaries; (ii) operate with a medium- to long-term perspective, and (iii) mobilize a number of financial instruments (direct loans, loans through commercial banks, grants, guarantees and equity through investment funds, or may also take a direct stake in public or private firms).

A recent systematic stocktaking exercise identified 527 public financial institutions in 150 countries, which are responsible for around 10 per cent of total world investment, with assets amounting to USD 18.7 trillion.³ Such institutions gained in relevance in the wake of the financial crisis (and more recently, during the COVID-19 pandemic). DFIs differ considerably from each other in terms of scale and scope; what they have in common is strong government influence on their strategies towards prioritized public policies. Sustainable development is one of these priorities. In 2019–2020, climate finance worldwide amounted to around USD 653 billion and was sourced almost equally from all types of public and private institutions and funds. Development banks contributed USD 237 billion to this total.⁴ It is estimated that climate finance will need to increase sevenfold to achieve international climate goals.⁵ That is, if these shares remain constant, public development finance institutions (multilateral, regional or national institutions) will need to significantly expand their current financial and operational capacities to mobilize resources to fight climate change.

FIGURE 1. SUSTAINABLE DEVELOPMENT AS A TOP PRIORITY OF DFIS

DFIs contribution to total



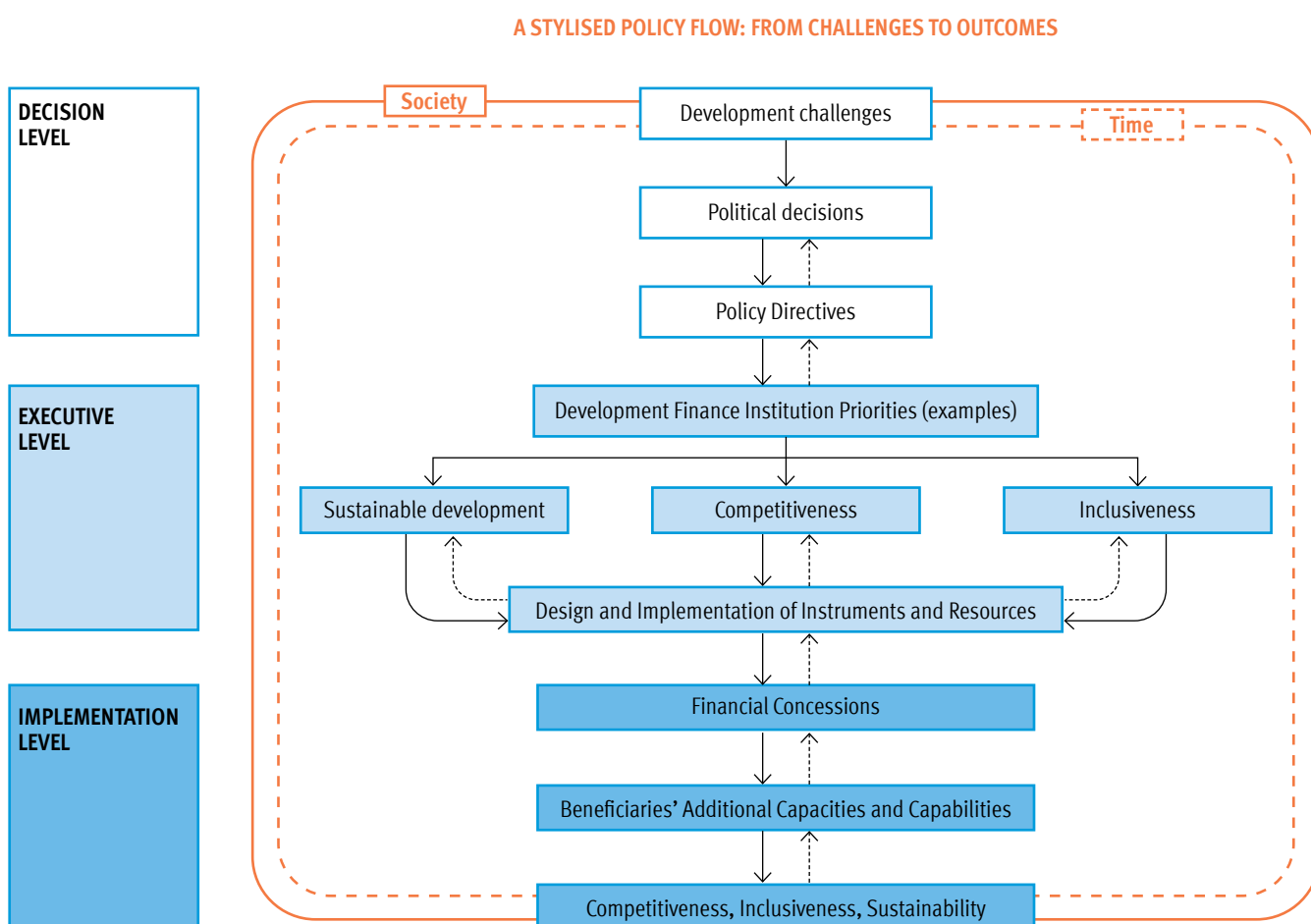
Source: Author elaboration based on Xu et. al. (2021) and Naran et. al. (2022)

From development challenges to outcomes

Mobilizing finance for sustainable development requires setting a clear path, starting with the identification of the development challenges a country faces to determining which policy actions are needed to effectively address those challenges. Figure 1 presents a stylized

flow of this path which consists of three policy levels: (i) formulation; (ii) executive prioritization, and (iii) implementation. The interrelationships are not only unidirectional, but may be bidirectional as well (as depicted by the straight and dashed lines in Figure 2).

FIGURE 2. DEVELOPMENT CHALLENGES, POLITICAL DECISIONS, POLICY IMPLEMENTATION AND OUTCOMES



Source: Adapted from Ferraz and Coutinho (2019)⁶

The straight and dashed orange lines represent the influence of two factors, namely (i) time, and (ii) society. From the moment a policy is defined up until its impacts reach the beneficiaries, political compromises are being forged and expectations are raised. Societal influence also plays a crucial role as public institutions are not insulated from the legitimate pressures exerted by relevant social actors.

At the first policy level—the *'Decision level'*—development challenges are identified and translated into political decisions. These are reflected in the design of an industrial policy, including in directives targeted at various executive institutions. At the second policy level—the *'Executive level'*—executive agencies (e.g. DFIs) transform these directives into priorities, while

instruments and resources are mobilized through action plans. This triggers a sequence of activities in DFIs, supported by a sound portfolio of financial instruments, a history of credibility and the capacity to interact with prioritized beneficiaries. These activities are translated into operational procedures to evaluate, approve, grant and follow up on project results. At the third level—the ‘*Implementation level*’—DFIs approve finance, beneficiaries convert investment projects into operational installations, and consequently deliver specific goods and services.

A DFI’s effectiveness is assessed in terms of the positive impacts its added capacities have on different socio-economic spheres. Due to their very nature and mission, DFIs are characterized by inherent contradictions: all development projects have both positive and negative externalities and/or will be perceived differently by various stakeholders. Tensions between different actors should not simply be dismissed, however, and must be dealt with within the scope of political debates and policy directives; the public good must always be the ultimate reference point in decision making.

The case of Brazil’s wind industry

Brazil’s wind industry exemplifies the long journey from political decisions to policy outcomes.⁷ The country’s market and technology trends as well as its existing political and policy frameworks opened up the space for the development of the wind industry. The Brazilian Development Bank (BNDES) identified priorities in alignment with public policies and possessed (i) a long-standing track record of supporting Brazil’s energy industries; (ii) a strong balance sheet, (iii) a diversified portfolio of products, and (iv) the organizational and process procedures capable of exploring new solutions to foster innovative economic activities.

Brazil entered the industry at a time when world demand was receding and suppliers were actively searching for new markets and exploring different technological trends. The cost of turbines in international markets (representing around 80 per cent of total investment) fell by around 50 per cent between 2008 and 2019, while the average power of wind turbines increased from 1.3 MW to 2.6 MW. Consistent

with Brazil’s economic growth between 2004 and 2015, energy demand increased and substantial pluriannual infrastructure investment plans were put forward, including cost-advantage programmes for renewable energy sources.

The rise of Brazil’s wind industry was impressive. Between 2008–2018, 620 wind farms (mostly private companies) operating over 7,500 turbines and generating more than 15.5 GW (representing around 9 per cent of Brazil’s total energy capacity) were installed. Over 100 new companies were established, including six wind turbine providers. By 2016, the industry directly employed 150,000 employees, an equivalent of 15 jobs per MW. In addition to these positive externalities, wind energy also reduces CO₂ emission. From 2012 to 2019, around 78.5 million tonnes of CO₂ (about 2 per cent of total emissions over the 7-year period) were avoided thanks to wind energy generation.

BNDES assumed a fundamental role in Brazil’s wind industry. For that it prioritized annual disbursement targets; the allocation of human and organizational resources and financing conditions. In addition to closely aligning its approach with policy directives, BNDES had technical and operational autonomy to choose between “good” and “bad” projects.

BNDES had the highest global debt portfolio in clean energy between 2004 and 2019 (USD 31.3 billion). It financed wind farms under the condition that equipment was sourced from local plants. BNDES contributed USD 15.2 billion out of a total investment of USD 35.6 billion to generate 15.5 GW of wind energy capacity, with the remaining 60 per cent provided by investors and private loans. To benefit from BNDES’s finance conditions (interest rates, maturity, etc.), energy investors were induced to acquire capital goods from local producers. Considering that the share of capital goods for a wind park investment lies somewhere around 80 per cent of total investments, it is estimated that BNDES loans between 2006 and 2019 generated demand of around USD 12.7 billion for the wind supply industry.

While exogenous factors positively influenced the development of Brazil’s wind industry, BNDES mobilized internal competencies to implement successive finance innovations, resulting in the successful development of this sustainable industry.

Innovative and effective development finance institutions for sustainable development

DFIs can play a strategic role in industrial policies to promote sustainable development. The table below summarizes a set of essential factors that can be classified under four attributes (mission, structure, attitudes and capabilities) that increase the probability of a DFI being characterized as effective, innovative and pro-sustainability. Two fundamental pre-conditions must be met for a DFI to be effective: (i) sensible political decisions with explicit and continued support from political leaders, and (ii) feasible challenge-oriented policy goals that lie within reach of executive agencies' capabilities.

TABLE 1. ATTRIBUTES AND SUCCESS FACTORS OF AN EFFECTIVE AND INNOVATIVE PRO-SUSTAINABILITY DFI

Attributes	Success Factors
Mission	Serve the public interest. Engage in development priorities defined at the political and policy levels.
	Finance new economic activities, open new frontiers, foster markets, fill gaps, fix failures and induce externalities.
	Ongoing and reflexive evaluation of whether system is moving in direction of mission via achievement of intermediate milestones. Focus on portfolio of policies and interventions, and their interaction
	Have long-term aims and be prepared for risks associated with the unpredictable.
	Failure is accepted and encouraged as a learning device.
	Support national or local development and related long-term planning.
	Generate returns with efficient investment decisions and distribute them to society.
Structure	Contribute to systemic economic stability, especially during crisis periods.
	A sound capital base and long-term balance sheet to allow for consistent support of uncertain, risk-intensive development-relevant projects.
Attitudes	Sufficient scale and scope. Increasing the volume of operations decreases the average unit cost of financial services.
	Continuous alignment with public policies.
	Identify and address relevant sustainability challenges.
	Patience and tenacity to achieve development goals.
	Readiness to partner with the private financial industry to co-develop financial markets.
Readiness to negotiate and arbitrate interests, with the public good as the guiding principle.	

Attributes	Success Factors
Capabilities	Process-based planning. The design and implementation of actions are a consequence of learning processes, with the support of best available quantitative and qualitative tools and an adequate understanding of the temporality of actions.
	Go digital. Digitalization implies decreasing costs, increasing efficiency and customized services, including the possibility of de-intermediation (offering solutions directly to customers).
	Organizational and technical autonomy to be able to discern, foster, implement and monitor worthwhile projects.
	Collective decision-making processes.
	Accumulated credibility and continued interaction with financial partners and financing beneficiaries.
	Innovativeness to open spaces for identifying opportunities, the development of new solutions, operational procedures, financial instruments and analytical methods, with the challenges associated with sustainable development projects as the reference point.
	Continuous learning.

Source: Author elaboration

Endnotes

- ¹ Reflections from on-going research, professional experience and published work are incorporated in this Policy Brief.
- ² See, for instance, Altenburg, T., and Rodrik, D. (2017) “[Green industrial policy: Accelerating structural change towards wealthy green economies](#)” and Mazzucato and Kattel (2020) “[Grand Challenges, Industrial Policy and Public Value](#)”
- ³ Xu et. al (2021): “[What are public development banks and development financing institutions? Qualification criteria, stylized facts and development trends](#)”
- ⁴ Naran et al (2022): “[Global Landscape of Climate Finance: A Decade of Data 2011-2020](#)”
- ⁵ Ibid.
- ⁶ Ferraz, J.C. and Coutinho, L. (2019) “[Investment policies, development finance and economic transformation: Lessons from BNDES](#)”
- ⁷ Ferraz, J. C., Ramos, L. and Plattek, B. (2022) “[Development Finance Innovations and Conditioning Factors: The Case of the Brazilian Development Bank and Sustainable Industries](#)”



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