

ABDE 2030

Plano de Desenvolvimento Sustentável



The power of the collective in financing sustainable development

The National Development Financial System (NDFS) is the set of Brazilian Development Financial Institutions (DFIs), whose mission is to promote sustainable development (economic, social and environmental) through long-term financing and support of strategic sectors. It is composed of public and cooperative actors, controlled by different federative entities, present in all regions of the country and endowed with broad capillarity to operate, in a coordinated and comprehensive manner, public policies formulated at various levels.

The SNF is made up of federal public banks, development banks controlled by states, development agencies, state commercial banks with development portfolios, cooperative banks, as well as Finep and Sebrae. The institutional diversity that characterizes the National Development Financial System potentializes its performance, making it possible to meet the needs of several sectors and segments: micro and small enterprises; municipalities; rural and agribusiness sector; technology and innovation; project structuring; basic sanitation, among many others.

Its strong regional presence and in-depth knowledge of the localities in which it operates makes the NDFS a relevant instrument for the construction of public policies that aim to reach all parts of the national territory. Through the SNF, it is possible to operationalize policies that integrate the vision of the states and the Union, so that they contribute to the reduction of regional disparities.

Because of these specificities, the National Development Financial System is recognized as the engine of development. In this sense, the Brazilian Development Association (ABDE), the entity that represents this System, presents the ABDE 2030 Plan as a contribution to foster the debate on sustainable, inclusive and innovative development in Brazil, based on the Sustainable Development Goals (SDGs), which represent the commitment assumed by the member states of the United Nations in the document “Transforming Our World: The 2030 Agenda for Sustainable Development”, in 2015.

The National Development Financial System stands as an essential ally in funding and mobilizing the necessary resources to enable the achievement of the SDGs in the country. Currently, development finance institutions, participants of the NDFS, are already pursuing this goal in their operations. But we know that much more needs to be done. Therefore, the **ABDE 2030 Plan for Sustainable Development** deepens the debate and presents strategic missions for the country to achieve the SDGs goals. It highlights the relevant role of the NDFS and its strengthening as an engine for the investments needed to achieve the proposed missions, as well as other essential agendas for the country.

ABDE is open to dialogue and invites all other sectors to jointly take on this challenge, which requires resources and efforts compatible with the magnitude of its dimensions. In fact, we need a National Development Financial System that is increasingly stronger and more strategic, capable of inducing public policies that pushes the country to a more sustainable, inclusive, and egalitarian country.



Jeanette Halmenschlager Lontra

President of ABDE and Badesul

The ABDE 2030 Plan for Sustainable Development is ABDE's contribution to the debate on the paths to sustainable development in Brazil. Through a detailed diagnosis and the proposal of concrete measures, the plan aims to show how the National Development Financial System (NDFS) can contribute in a relevant way to achieve the Sustainable Development Goals (SDGs) of the 2030 Agenda, a commitment made by the United Nations in 2015, as well as the goals of the Paris Agreement on global climate change.

Taken together, both agendas constitute globally agreed missions and guide the implementation of a more sustainable and inclusive development pattern. Due to the importance of its economy, the greatness of its biodiversity and geopolitical position, Brazil can lead the transformations proposed by these agendas. And in this sense, the NDFS can be the strategic actor to drive the investments needed to fulfill these missions, from financing to project structuring.

The document was thought out and debated with the NDFS actors and a wide range of specialists from various areas, ensuring a technically robust and comprehensive construction of the ABDE 2030 Plan. In this way, this work is a collective and inclusive construction, with the intention of offering to society viable alternatives for structuring actions that contribute to the sustainable development of our country.



Sergio Gusmão Suchodolski

ABDE 2030 Plan Coordinator and
President of Desenvolve SP

The Brazilian Development Association (ABDE), representing the National Development Financial System, has a central role in contributing to the sustainable, inclusive and innovative development agenda. The ABDE 2030 Plan is one more of the actions that ABDE carries out in order to boost the financing towards the achievement of the 17 SDGs in Brazil. The Association has become a reference for the financing of the SDGs, with a series of training courses within the System, studies on the theme and in the interactions with the Federal Government and National Congress to strengthen the agenda to promote sustainability in Brazil. The members, the ABDE team and consultants seek in this document to inspire initiatives for the construction of a sustainable future.



José Luis Gordon

Executive Secretary of ABDE

The year 2015 was a milestone for multilateral agreements. The 2030 Agenda, with its 17 Sustainable Development Goals (SDGs), and the Paris Agreement on climate agreement point the way to a more prosperous, equitable, and sustainable future. The Addis Ababa Action Agenda provides a global framework to implement the 2030 Agenda by aligning financing flows with economic, social, and environmental policies.

With the difficulties faced since 2015, such as the Covid-19 pandemic, we must re-double efforts and scale up the ambition of implementing the SDGs and the Paris Agreement. It is crucial to mobilize significant public and private investments to make the common goals reflected in these instruments a reality for all people.

The United Nations (UN) has a long history of supporting Member States in financing for development. To strengthen this, the Secretary-General released his Strategy for Financing the 2030 Agenda for Sustainable Development in September 2018. Designed to transform the financial system from the global to the local level, the strategy addresses the barriers to channeling finance for sustainable development and the opportunities to scale up investments in the SDGs.

One of the goals is to strengthen sustainable financing strategies and investments at the regional and national levels. The UN System in Brazil sees the Brazilian Development Association (ABDE) as a partner that recognizes the strategic importance of a financial system that is truly aligned with the national and international sustainable development goals, establishing the bases and instruments necessary to achieve the 2030 Agenda in the country. Since 2020, a growing number of UN agencies, funds and programs in Brazil have contributed with ABDE to advance financing for sustainable development.

It is therefore with joy that the UN follows the launch of the ABDE 2030 Plan, which uses the approach of “policies oriented to answer great challenges” to guide the National Development Financial System in building a robust strategy for transformative development. The Plan identifies and articulates concrete socio-economic and environmental problems to change production, distribution and consumption patterns in favor of value creation, inclusion and sustainability.

We hope that this Plan will be welcomed by all sectors and financial institutions, so that sustainable finance becomes a reality and can play its essential role in the transition to a fair, low carbon and inclusive economic environment.



Silvia Rucks del Bo

United Nations Resident Coordinator
in Brazil

We are facing those situations in which it is necessary to act in two-time frames: present and future require our mobilization now.

The urgency imposed by the present moment is striking: the unprecedented economic shocks imposed by the pandemic combined with the increased frequency of extreme weather events. Phenomena of an apparently distinct nature, but which converge in the form of negative impacts felt in an exacerbated manner by the most vulnerable, for whom waiting is not an option.

The immediate and rushed action, however, does not exempt us from the need to plan the next steps of our economies, our societies, and our environment - elements that are increasingly perceived as interdependent and fed back. Just as there is no time to waste to fix "today", it is also urgent to act for "tomorrow". So that our next chapters are not only better but are simply possible since non-action now puts our very survival as a species at risk.

And it is precisely because it combines actions that cannot be postponed in the present and for the future that this ABDE 2030 Plan has immense value. Developed in an organization that did not shy away from its role of supporting the country during the Covid-19 crisis - efforts with which the IDB is honored to have collaborated - this instrument is like a mountain climbing anchor set on the highest rocks: thrown upwards, it supports our climb towards higher standards of sustainability, inclusion, and resilience.

The IDB is honored to support Brazil and ABDE in this endeavor, which has many intersections with our Vision 2025, the agenda that guides our support for the sustainable recovery of Latin America and the Caribbean. With one foot firmly planted in the present and the other already prepared to climb to better positions in the future, our institutions together can glimpse, from above, a better and more prosperous horizon for Brazil and the region.



Morgan Doyle

Country Representative of
the IDB Group in Brazil

BRAZILIAN DEVELOPMENT ASSOCIATION (ABDE)

General Assembly

President: Gustavo Montezano

Board of Directors

President: Jeanette Halmenschlager Lontra

1st vice-president: Valdecir Tose

2nd vice-president: Cledir Magri

Directors

André Luz de Godoy

Bruno Laskowsky

Heraldo Alves das Neves

Jair de Oliveira Marques

Munir Abud de Oliveira

Paulo Augusto Ferreira Bouças

Paulo de Oliveira Costa

ABDE Team

Executive Secretary

José Luis Gordon

Managers

Bruna Araújo

Cristiane Viturino

Leandro Rodrigues

Thais Sena Schettino

Staff

Adriana Renovato

Amanda Bior dos Santos

Camila Matheus

Cristiane Cimas

Jader Moraes

Kesia Braga

Letícia Lima

Mariana Ramos Oliveira

ASSOCIATES

Federal Public Banks

BANCO DA AMAZÔNIA | Banco da Amazônia S.A.
BB | Banco do Brasil S.A.
BNB | Banco do Nordeste S.A.
BNDES | Banco Nacional de Desenvolvimento Econômico e Social

Development banks controlled by states

BANDES | Banco de Desenvolvimento do Espírito Santo S.A.
BDMG | Banco de Desenvolvimento de Minas Gerais S.A.
BRDE | Banco Regional de Desenvolvimento do Extremo Sul

Cooperative Banks

SICOOB | Sistema de Cooperativas de Crédito do Brasil S. A.
BANCO SICREDI | Banco Cooperativo Sicredi S.A.
CRESOL | Cresol Confederação

Commercial public banks with development portfolios

BANESE | Banco do Estado de Sergipe S. A.
BANESTES | Banco do Estado do Espírito Santos S. A.
BANPARÁ | Banco do Estado do Pará S.A.
BRB | Banco de Brasília

State-controlled development agencies

AFAP | Agência de Fomento do Estado do Amapá S.A.
AFEAM | Agência de Fomento do Estado do Amazonas S.A.
Agência de Fomento do Estado de Tocantins
AGE | Agência de Empreendedorismo de Pernambuco
AGERIO | Agência Estadual de Fomento do Rio de Janeiro
AGN | Agência de Fomento do Rio Grande do Norte S.A.
BADESC | Agência de Fomento do Estado de Santa Catarina S.A.
BADESUL | Agência de Fomento do Rio Grande do Sul
DESENBAHIA | Agência de Fomento do Estado da Bahia S.A.

DESENVOLVE | Agência de Fomento do Estado de Alagoas S.A.
DESENVOLVE MT | Agência de Fomento do Estado de Mato Grosso S.A.
DESENVOLVE RR | Agência de Desenvolvimento de Roraima S.A.
DESENVOLVE SP | Agência de Desenvolvimento Paulista
FOMENTO PARANÁ | Agência de Fomento do Paraná S.A.
GOIÁS FOMENTO | Agência de Fomento de Goiás S.A.
PIAUÍ FOMENTO | Agência de Fomento e Desenvolvimento
do Estado do Piauí S.A.

FINEP | Inovação e Pesquisa

SEBRAE | Serviço Brasileiro de Apoio às Micro e Pequenas Empresas



Introduction

The **Sustainable Development Goals (SDGs)** are a relevant conceptual framework for guiding public policies worldwide, representing the commitment made by the member States of the United Nations in the document “*Transforming Our World: The 2030 Agenda for Sustainable Development*” in 2015. The 2030 Agenda comprises 17 SDGs and 169 goals, covering urgent themes for sustainable development. That same year, the Addis Ababa Action Agenda was created, providing the basis for implementing the global sustainable transition and reinforcing the importance of financing to achieve the SDGs.

The Addis Ababa Action Agenda recommends that all countries maintain “*cohesive nationally owned sustainable development strategies, supported by Integrated National Financing Frameworks (INFF)*”¹. In line with this recommendation, the United Nations Development Programme (UNDP) has supported the development of INFFs in more than 50 countries, encouraging alignment with socioeconomic recovery plans in response to the covid-19 pandemic.

In Brazil, the **Brazilian Development Association** (ABDE in its Portuguese acronym) represents Development Financial Institutions (DFIs) that together form the country’s **National Development Financial System (NDFS)**². The DFIs represented by ABDE include federal public banks³, commercial public banks with development portfolios⁴, development banks controlled by states⁵, development agencies⁶, cooperative banks⁷, as well as Finep and Sebrae². The NDFS’ potential for action makes the System a first class ally in financing

¹ INFF is a tool to assist countries strengthen planning processes and overcome obstacles to the financing for sustainable development and the SDGs at the national level. It sets out the full range of financing sources – domestic and international sources of public and private financing – and allows countries to develop a strategy to increase investments, manage risks, and achieve sustainable development priorities as identified in their national development strategy. For more details, see: <https://inff.org/about>.

² SNF in its Portuguese acronym.

³ Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Banco do Brasil (BB), Banco do Nordeste do Brasil (BNB) and Banco da Amazônia (Basa).

⁴ Banco de Brasília (BRB), Banco do Estado do Espírito Santo (Banestes), Banco do Estado de Sergipe (Banese), Banco do Estado do Pará (Banpará), Banco do Estado do Rio Grande do Sul (Banrisul).

⁵ Banco de Desenvolvimento de Minas Gerais (BDMG), Banco de Desenvolvimento do Espírito Santo (Bandes) and Banco Regional de Desenvolvimento do Extremo Sul (BRDE).

⁶ Agência de Fomento do Amapá (Afap), Agência de Fomento do Estado do Tocantins (Fomento TO), Agência de Empreendedorismo de Pernambuco (Age), Agência de Fomento do Rio Grande do Norte (AGN-RN), Agência de Fomento de Alagoas (Desenvolve), Agência de Fomento do Estado de Mato Grosso (Desenvolve MT), Agência de Fomento do Estado de Roraima (Desenvolve RR), Agência de Fomento e Desenvolvimento do Estado do Piauí (Piauí Fomento), Agência de Fomento do Estado do Amazonas (Afeam), Agência de Fomento do Estado do Rio de Janeiro (AgeRio), Agência de Fomento de Goiás (GoiásFomento), Agência de Fomento do Estado da Bahia (Desenbahia), Agência de Desenvolvimento Paulista (Desenvolve SP), Agência de Fomento do Paraná (Fomento PR), Badesul Desenvolvimento (Badesul), Agência de Fomento de Santa Catarina (Badesc).

⁷ Banco Sicoob, Sicredi and Cresol.

and mobilizing the necessary resources to enable sustainable, inclusive and innovative development projects in the most diverse sectors and segments of the Brazilian economy.

To realize its full potential, Brazilian DFIs could develop a **financing strategy** for meeting the SDGs. The **ABDE 2030 Sustainable Development Plan represents the first step of this journey**. It is a **policy agenda** that aims to **enhance the contribution of the NDFS** in achieving the SDGs and the goals of the **2030 Agenda**. The Plan is divided into two parts:

- **Part I – The NDFS in the 2030 Agenda for Sustainable Development:** brief analysis on the progress of SDGs fulfillment in Brazil and mapping of the Brazilian DFIs initiatives in the 2030 Agenda classified in four dimensions: environmental, social, economic and institucional.⁸; and
- **Part II: How can the NDFS accelerate and scale up SDGs fulfillment in Brazil:** definition of strategic missions to guide development policies to fulfill the SDGs as well as policy recommendations and proposed actions to strengthen the NDFS and its initiatives to meet the 2030 Agenda and the five missions proposed in the Plan.

Part I: The Brazilian NDFS in the 2030 Agenda for Sustainable Development

- **The NDFS has a decisive role triggering a virtuous dynamic in the social, economic, environmental and institutional dimensions of the 2030 Agenda, and already has relevant examples of initiatives targeting the SDGs, many of which can be strengthened, adjusted and/or replicated to enhance the NDFS contribution to this agenda.** A preliminary analysis of 20 DFIs⁹ reveals that ten of them explicitly cite the SDGs or align their strategic planning with goals of the 2030 Agenda. SDG 8 (decent work and economic growth) stands out as the one most directly cited in the documents analyzed.

⁸ This grouping is only intended to facilitate a preliminary diagnosis of what initiatives the NDFS has been carrying out to meet the agenda. It is not the purpose of the analysis to present an exhaustive mapping, nor to lose sight of the indivisibility and integrality of the 17 SDGs.

⁹ BDMG, FINEP, DESENBAHIA, BADESC, SICREDI, Fomento PR, AFEAM, Age Rio, AGN, Desenvolve MT, Goiás Fomento, BANDES, Desenvolve SP, CRESOL, BADESUL, Banco do Brasil, BNDES, BASA, BRDE and BNB.

- In complement to that first analysis and based on a study conducted by ABDE and UNDP Brazil, it was possible to verify **which SDGs were most financed by the NDFS**¹⁰. The data represents the percentage of funds made available for each SDG out of the total allocated by the NDFS for the set of SDGs in the years 2020 and 2021 (only its 1st semester). The results show that the **SDGs with the highest participation in the NDFS portfolio are SDGs 8** (decent work and economic growth) with **24.3%** (2020) and **22%** (2021); and **SDG 9** (industry, innovation and infrastructure) with **23.7%** (2020) and **24%** (2021). They are on top of the NDFS contribution to the 2030 Agenda in Brazil highlighting the system's role in supporting small businesses, production and innovation; and investment in infrastructure.
- It is also worth mentioning the participation of other SDGs in the analysis for the years 2020 and 2021, respectively. These are: **SDG 7** (affordable and clean energy) with **10.7%** and **14%**; **SDG 2** (zero hunger) with **8.7%** and **9.3%**; and SDG 10 (reduced inequalities) with **8.1%** and **9.3%**, the numbers **reinforce NDFS's potential to contribute to a more inclusive, sustainable and innovative development.**
- **Most of the NDFS institutions are currently in the early stages of internalizing the 2030 Agenda.** Given the allocation profile of the DFIs portfolio, it is clear that there is room to **increase knowledge about negative effects among the SDGs** (spillover effect) **and the risk of cross-cutting agendas** (such as diversity, inequality, gender, race, decent work, among others) **being underestimated other themes.** Some important recommendations to increase awareness on the 2030 Agenda by DFIs include:
 - Training staff on different taxonomies;
 - Strengthening monitoring and evaluation capacities;
 - Increase knowledge on international experiences for the fulfillment of the SDGs;
 - Diagnosis on local needs so that DFIs can better identify bottlenecks and prioritize which sectors and segments they should focus..

¹⁰ It is worth noting that this data refers to a sample of 17 DFIs. The analysis is the result of a first effort to quantify the NDFS's performance in the SDGs. The methodology used remains subject to improvement, given that the study is in the final stage of its preparation. Primary and secondary data from the DFIs for the years 2020 and the first half of 2021 were used to classify their portfolios in the SDGs. The DFIs analyzed were AFEAM, AgeRio, AGN, Badesc, Desenvolve MT, Fomento PR, Sicredi, Desenbahia, Bandes, Finep, Desenvolve SP, Goias Fomento, Cresol, Badesul, BDMG, BNB, and BNDES.

Part II: How the NDFS can accelerate and scale SDGs fulfillment in Brazil

- **The ABDE 2030 Plan adopted a mission-oriented policy approach¹¹ to guide the NDFS in building a strategy capable of enhancing DFIs contribution to promoting sustainable development.** The idea of electing missions for the NDFS seeks to engage DFIs actors in facing major challenges that can transform production, distribution and consumption patterns in various sectors and across social groups targeting value creation, inclusion and sustainability. The mission goal points out to the strategic level of the intervention, aiming for a transformative development. Potential projects represent the tactical level, that is, available pathways to achieve mission goals, whereas proposals represent how projects can be carried out.
- **The five missions with a transforming potential** in terms of contribution to sustainable development in Brazil are:

1. Digital, smart and inclusive future: This mission seeks to raise the value added in the economy and generate decent work (SDG 8) on an inclusive basis. The contribution of the NDFS is linked to its central role in promoting the digital transformation of MSMEs (micro, small and medium-sized enterprises) – supporting employment generation (SDG 8); financing digital infrastructure and investing in innovation (SDG 9); supporting smart cities (SDG11) and agribusiness, as well as promoting equal opportunities (SDGs 5 and 10). Some examples of projects that could be developed for this mission are:

- Providing access to information technologies for 5G digital transformation in the city and countryside**
- Expanding digital opportunities for business and research led by women**
- Preparing small- and medium-sized enterprises (SMEs) and workers for digitized production chains** (*Smart Networks*)

¹¹ Mazzucato, M. (2018). *Mission-oriented Innovation Policy: Challenges and Opportunities*. Available at: [OP-ICCJ180035.803..816 \(ucl.ac.uk\)](https://op-iccj180035.803..816.ucl.ac.uk)

2. Ecosystem for innovation in bioeconomy and the Ama-

zon: This mission provides an opportunity to promote economic growth and generate decent work (SDG 8) on sustainable basis, in addition to contributing to the improvement of citizens' quality of life and environmental protection (SDG 15). Bioeconomy contributes to the solution of social and environmental challenges (SDGs 11 and 13) by promoting equitable access to land use (SDGs 4 and 10) by small producers of food and sociobiodiversity products¹², particularly women, black people, and traditional communities (SDGs 5 and 10). Some examples of projects that could be developed for this mission are:

- a. Business management support, training and risk mitigation and capacity building in bioeconomy**
- b. Science and technology program with focused on biotechnology**
- c. Economic incentives for valuing environmental assets and deforestation control in the Amazon**

3. Engaged agribusiness: A significant part of total greenhouse gas emissions results from deforestation originating from the agricultural sector. Therefore, the commitments made in relation to climate change (SDG 13) depend, to a large extent, on transformations in the land. Likewise, responsible consumption and production patterns are strongly associated with the rural environment and the value chains of agri-food systems (SDG 12). This mission contemplates the agribusiness value chain, including sectors of agriculture and livestock, processing industry, family farming, among others. These agri-food systems have a substantial impact on the production structure of the economy, on sustainability and on the quality of life of Brazilians

¹² The concept of sociobiodiversity concerns goods and services generated from biodiversity resources, aiming to develop production chains of interest to traditional peoples and communities, which promote the maintenance and appreciation of their practices and knowledge, generating income, and improving their quality of life and the environment in which they live.

– notably with regard to food security and the inclusion of vulnerable groups in rural areas. Some examples of projects that could be developed for this mission are:

- a. Expansion of sustainable patterns of production via innovative financing instruments**
- b. Reduce costs and food waste in value chains**
- c. Increase resilience and robustness in value chains to ensure food security focusing on family farming**

4. Infrastructure and sustainable cities: Infrastructure *gap* in Brazilian cities is a historical problem directly linked to the country's urban population growth as the infrastructure available does not seem to develop at the same pace people migrate from rural to urban areas. The infrastructure and sustainable cities mission aims at reducing regional inequalities through inclusive and sustainable urbanization. The goal is to find alternatives for financing more resilient and inclusive cities, comprising different dimensions of the sustainable cities concept– ranging from connectivity technologies to public facilities (daycare centers, parks, public lighting) – which, in turn, require innovative solutions in terms of financing. Some examples of projects that could be developed for this mission are:

- a. Diversification and development of sources of renewable energy and energy efficiency**
- b. Expansion of access to water and waste management**
- c. Inclusive urban mobility**

5. Health as a driving force for development – This mission is based on the Health Economic-Industrial Complex (CEIS, in its Portuguese acronym) concept, in which health sectors are interconnected and social rights effectiveness is enabled through the development of a productive, technological and innovation base that works as its foundation.¹³ Production includes the productive space for the provision of healthcare services, involving primary care, diagnosis and treatment, outpatient and hospital services, which sets the conditions for the entire health sector competitive and technological dynamics. The goal is to strengthen both demand and supply sides of healthcare in Brazil. One challenge is to expand and improve healthcare services while investing in supporting pillars of the Health Economic-Industrial Complex, contributing to the country's economic development. Some examples of projects that could be developed for this mission are:

- a. **Strengthening of production and innovation in the Health Economic-Industrial Complex**
- b. **Improving health-related infrastructure**
- c. **Digitization and improvement of health management**

Strengthening the National Development Financial System

These missions represent a **window of opportunity for a transformative contribution by the National Development Financial System** in areas that are crucial for achieving sustainable development in Brazil. Nevertheless, the challenges ahead of the Development Financial Institutions (DFIs) on this journey are also substantial. In this context, the **ABDE 2030 Plan proposes a set of initiatives to strengthening NDFS institutions** – both internally and externally – aiming to address challenges that might prevent them from exercising their potential in financing sustainable development in Brazil.

¹³Gadelha, C. O complexo industrial da saúde e a necessidade de um enfoque dinâmico na economia da saúde. *Ciência e saúde coletiva*, Rio de Janeiro, v. 8, n. 2, p. 521-535, 2003. Available at [SciELO - Brasil - O complexo industrial da saúde e a necessidade de um enfoque dinâmico na economia da saúde O complexo industrial da saúde e a necessidade de um enfoque dinâmico na economia da saúde](#).

To identify the main actions and proposals for targeting the NDFS, the ABDE 2030 Plan considered the system's initiatives that are aligned with the SDGs and/or that could be scaled up to enhance DFIs contribution to the sustainable transition. The proposals were classified into six main themes: (i) dissemination of the NDFS's role in the 2030 Agenda; (ii) internalization of the SDGs in DFIs institutional and regulatory frameworks; (iii) stakeholder engagement; (iv) adaptation institutional and regulatory framework; (v) sources of funding; (vi) strengthening the use of blended finance, guarantees and financial innovative instruments.

- **Dissemination of the NDFS role in the 2030 Agenda through more transparency and broader communication of its initiatives.** It contributes to justify the performance of development institutions and strengthening their internal and external structures to carry out the series of investments expected within the scope of the 2030 Agenda. Therefore, it is important to intensify data collection and dissemination and the development of evaluation and monitoring methodologies of the DFIs and their activities, contributing to the communication of results achieved. An action to support this recommendation would be to improve processes and digitization of institutions in order to strengthen their capacity to process data and information and, consequently, to generate knowledge about the NDFS performance.
- **Internalization of the SDGs in the DFIs institutional and regulatory frameworks to advance alignment of their strategic planning with the SDGs.** This can be done by raising awareness of senior leadership, board members and shareholders, and by creating shared agendas with common goals and communication vocabulary among DFIs regarding the SDGs.

- **Stakeholder engagement.** This action would strengthen the synergy between DFIs investments and the multi-annual planning government units (Federal to local levels) increasing the NDFS ability to act together and cohesively, interacting with other public and private entities based on a coordinated strategy. In addition, it would be interesting to create a transition plan for a sustainable, inclusive and innovative economy aligned with the the NDFS potential, considering the need to adapt it to local realities and maturity of each institution, thus exploring the potentialities for their performance within a system.
- **Adaptation of DFIs institutional and regulatory framework.** It contributes to expanding DFIs regulatory space to act which not only allow, but also encourage, a performance that is suitable to the current context of these institutions, including the possibility of a special treatment due to their crucial role in sustainable transition. Another key point would be the institutionalization of a legit sustainability taxonomy that could be adopted more broadly by all DFIs, ensuring more security and predictability for stakeholders involved in projects of this nature.
- **Sources of funding.** First, it would be beneficial for funding purposes to enable a closer integration between subnational DFIs and intitutions such as BNDES and Finep; the expansion of attraction of funds from international and multilateral funds and banks; and the creation of innovative partnerships with unionized financing or consortium of DFIs oriented towards specific SDGs. The creation of a national fund to promote the SDGs; the preservation of constitutional funds and the use of the Infrastructure Guarantee Fund (FGIE) to enable the structuring and development of concessions and public-private partnership (PPPs) projects are also recommended on this topic.

- **Strengthening the use of blended finance, guarantees and financial innovative instruments.** This recommendation seeks to stimulate the adoption of different strategies that allow a coordinated action from public and private agents, increasing the availability of funds allocated to sustainable development projects. DFIs are important actors in blended finance for the strategic use of public resources and mobilization of private resources for the sustainable agenda. One possible initiative is to create a guarantee fund for the SDGs with well-defined sustainability criteria for granting credit, in addition to the adoption of SDG criteria by national and subnational guarantee funds already in place, as well as a stronger performance of the DFIs in public-private partnerships (PPPs) and in the green bond market.

ABDE 2030

Plano de Desenvolvimento Sustentável





1. INTRODUCTION

The Sustainable Development Goals (SDGs) have been presented as an important conceptual framework for guiding public policies worldwide, in view of the commitment made by the member States of the United Nations in the document *Transforming Our World: The 2030 Agenda for Sustainable Development*. Known as the 2030 Agenda, the document is the result of a process initiated at Rio+20, in 2012, which had Brazil as a main actor in its approval at the United Nations (UN), in 2015.



With the Covid-19 pandemic, efforts gain even more urgency, both to face the pandemic and to recover from the impacts of the health, social and economic crisis.

That same year, the Paris Agreement set targets for climate change control, involving actions whose effects can directly influence and even accelerate the achievement of the SDGs.

The 2030 Agenda established the 17 SDGs and their respective 169 goals, covering urgent themes for sustainable development. In line with this commitment, the Third International Conference on Financing for Development, also held in 2015, established the Addis Ababa Action Agenda¹⁴, a document that reinforces the importance of the theme of financing for fulfilling the 2030 Agenda.

As of that moment, public policies and actions of the private sector in several countries have been reoriented to meet the goals agreed upon within the scope of the SDGs, representing a global effort that should gain more speed in this “decade of action” initiated in 2021. A substantial part of this effort has been carried out by the financial sector, especially by multilateral, national, and local Development Financial Institutions (DFIs).

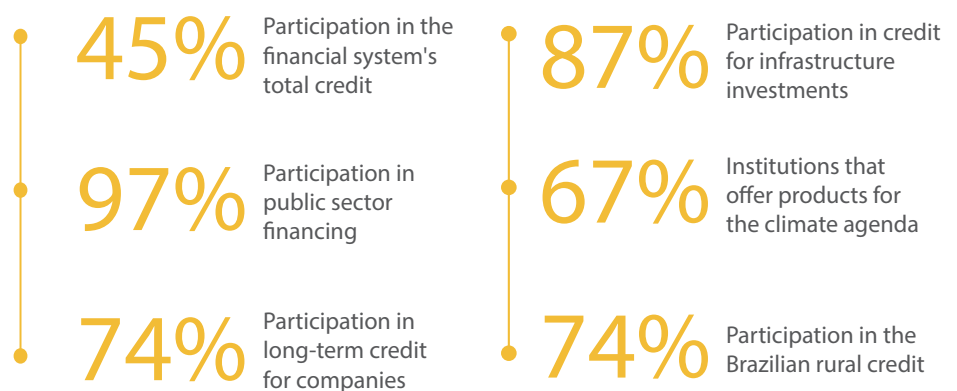
The growing need for economic recovery on a sustainable basis, aggravated by the Covid-19 pandemic, has brought sustainable financing to the center of the global debate and pushed the theme to the forefront of the agenda of public and private organizations. The global context has reinforced the urgency and relevance of the efforts undertaken by the DFIs to meet the 2030 Agenda, both in terms of facing the need to recover from the impacts caused by the health, social, and economic crisis of Covid-19, as well as to leverage structural investments to enable more sustainable, inclusive, innovative, and sustainable growth potential economies. In this scenario, DFIs can position themselves by connecting governments and the private sector, playing a prominent role in the implementation of sustainable projects, as well as in financing new development models in which economic solutions are also environmentally sustainable.

In Brazil, National Development Financial System (NDFS) is formed by the Development Financial Institutions, which, for the most part,

¹⁴ For the documents approved within the United Nations 2030 Agenda in 2015, see: [Transforming Our World: The 2030 Agenda for Sustainable Development](#) and [DESA-Briefing-Note-Addis-Action-Agenda.pdf \(un.org\)](#).

are represented by the Brazilian Development Association (Associação Brasileira de Desenvolvimento, ABDE in its Portuguese acronym). Its associates include: (i) federal public banks¹⁵; (ii) commercial public banks with development portfolios¹⁶; (iii) development banks controlled by states¹⁷; (iv) development agencies¹⁸; and (v) cooperative banks¹⁹, as well as Finep²⁰ and Sebrae²¹. According to data from the Brazilian Central Bank²², the NDFS represents 45% of the total credit in the Brazilian economy, reaching more than 37 million clients. The NDFS's presence in the credit market reduces financing gaps faced by multiple sectors and modalities and, to this end, the system operates in different areas:

Table 1: National Development Financial System main numbers in the Brazilian national credit



Source: Prepared by ABDE.

¹⁵ Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Banco do Brasil (BB), Banco do Nordeste do Brasil (BNB) and Banco da Amazônia (Basa).

¹⁶ Banco de Brasília (BRB), Banco do Estado do Espírito Santo (Banestes), Banco do Estado de Sergipe (Banese) and Banco do Estado do Pará (Banpará).

¹⁷ Banco de Desenvolvimento de Minas Gerais (BDMG), Banco de Desenvolvimento do Espírito Santo (Bandes) and Banco Regional de Desenvolvimento do Extremo Sul (BRDE).

¹⁸ Agência de Fomento do Amapá (Afap), Agência de Fomento do Estado do Tocantins (Fomento TO), Agência de Empreendedorismo de Pernambuco (Age), Agência de Fomento do Rio Grande do Norte (AGN-RN), Agência de Fomento de Alagoas (Desenvolve), Agência de Fomento do Estado de Mato Grosso (Desenvolve MT), Agência de Fomento do Estado de Roraima (Desenvolve RR), Agência de Fomento e Desenvolvimento do Estado do Piauí (Piauí Fomento), Agência de Fomento do Estado do Amazonas (Afeam), Agência de Fomento do Estado do Rio de Janeiro (AgeRio), Agência de Fomento de Goiás (GoiásFomento), Agência de Fomento do Estado da Bahia (Desenbahia), Agência de Desenvolvimento Paulista (Desenvolve SP), Agência de Fomento do Paraná (Fomento Paraná), Badesul Desenvolvimento (Badesul), Agência de Fomento de Santa Catarina (Badesul).

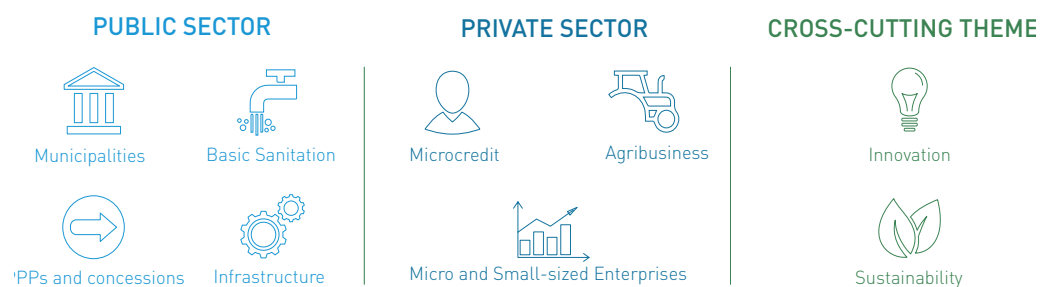
¹⁹ Banco Sicoob, Sicredi and Cresol.

²⁰ Financiadora de Estudos e Projetos (Finep).

²¹ Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (Sebrae).

²² Available at: <https://www3.bcb.gov.br/efdta/>

Figure 1: Performance of the National Development Financial System



Source: Prepared by ABDE.

The National Development Financial System is an important instrument of counter-cyclical policy, contributing to systemic economic stability by supporting the sustainability of the economy's total credit and releasing resources in times of reversal of confidence. It plays a relevant role in the resilience and recovery of the production and financial sectors of the economy. In addition, DFIs have the role of financing long-term investments, stimulating the development of new financial instruments, contributing to banking and social inclusion, and financing public goods, as in the case of climate change (GRIF-FITH-JONES, 2016).

The NDFS's potential transforms it into a first-rate ally for financing and mobilizing the necessary resources to make projects with a sustainable, inclusive, and innovative impact feasible in the most diverse sectors and segments of the Brazilian economy, contributing, in a definitive manner, to the fulfillment of the 2030 Agenda in Brazil. Nevertheless, in order to reach NDFS's full contribution potential, its institutions need to develop a financing strategy to promote the achievement of the SDGs, including their environmental, social, economic and institutional dimensions.

It is in this context that the **ABDE 2030 Sustainable Development Plan** is presented, a document of proposals that aims to enhance the contribution of the NDFS in achieving the SDGs and the goals of the 2030 Agenda. To this end, the plan proposes:

- (i) Mapping the situation of fulfillment of the SDGs in Brazil and the performance of the NDFS in view of four guiding axes: environmental, social, economic and institutional;
- (ii) Defining strategic areas of the development policy to the attainment of the SDGs;
- (iii) Recommending policies to strengthen the institutional framework and coordination of the NDFS, aiming at the promotion of the SDGs.

The ABDE 2030 Plan highlights some main actions that can contribute to the strengthening of the system and its performance in order to fulfill the 2030 Agenda and the missions proposed herein. It is worth noting that this is a living document, open to the inclusion of any proposals that have not been deepened or mentioned in this first moment, and sensitive to the uncertainties and trends that may affect, fundamentally, the dynamics of the NDFS within the national and international context.





2. DIAGNOSIS OF THE NATIONAL DEVELOPMENT FINANCIAL SYSTEM IN THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

The National Development Financial System in the 2030 Agenda for Sustainable Development

The Addis Ababa Action Agenda recommends that all countries maintain “*cohesive nationally owned sustainable development strategies, supported by Integrated National Financing Frameworks (INFF)*”²³. In line with this recommendation, the United Nations Development Programme (UNDP) has supported the development of INFFs in more than 50 countries, encouraging alignment with socioeconomic recovery plans in response to the Covid-19 pandemic. The European Union, the UN, the Joint SDG Fund, and other UN programs and agencies have been important partners in this process.

A preliminary (and not exhaustive) analysis of official documents with information related to “*building visions of the country’s future through the identification of medium and long-term goals*”²⁴, from 20 DFIs²⁵, reveals that ten of them explicitly cite the SDGs or align their strategic planning with the goals of the 2030 Agenda²⁶. SDG 8 (decent work and economic growth) stands out as the one most directly cited in the documents analyzed.

Considering that most of the DFIs in the sample are in the early stages of internalizing the agenda, the analysis also took into consideration indirect citations to the SDGs. In this enlarged panorama, SDG 9 (industry, innovation and infrastructure) gained prominence, directly related to the core activities of these institutions in promoting micro, small and medium-sized enterprises (MSMEs), and financing of infrastructure. Additionally, there is a high incidence and level of priority assigned to the goals and actions classified within SDG 16 (peace, justice and strong institutions) as they are related to themes such as increasing transparency, fighting corruption, and other measures to improve institutional capacities. These actions adhere to the 2030 Agenda as they also relate to SDG 17 (partnerships and means of implementation).

It was also observed that SDG 9, SDG 11 (sustainable cities and communities), and SDG 13 (climate action) correspond to the themes of the 2030 Agenda that most positively interact with other SDGs. This

²³ INFF is a tool to assist countries strengthen planning processes and overcome impediments to the financing for sustainable development and the SDGs at the national level. It sets out the full range of financing sources – domestic and international sources of public and private financing – and allows countries to develop a strategy to increase investments, manage risks, and achieve sustainable development priorities as identified in their national development strategy. For more details, see: <https://inff.org/about>.

²⁴ The analysis used a methodology adapted from the United Nations Institute for Training and Research (UNITAR).

²⁵ BDMG, Finep, Desenhahia, Badesc, Sicredi, Fomento PR, Afeam, Age Rio, AGN, Desenvolve MT, Goiás Fomento, Bades, Desenvolve SP, Cresol, Badesul, Banco do Brasil, BNDES, Basa, BRDE, and BNB.

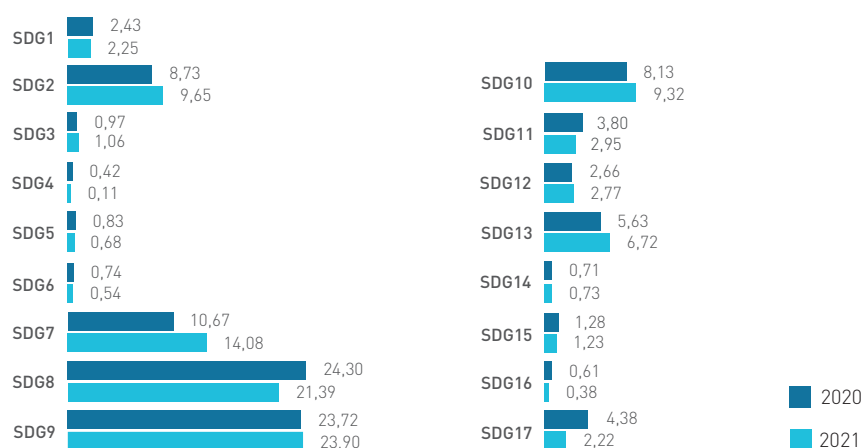
²⁶ Badesul, Bades, BDMG, CRESOL, Desenvolve SP, Goiás Fomento, Banco do Brasil, BNDES, BRDE, and Basa.



result indicates how the NDFS identifies the cross-cutting potential of the respective SDGs to leverage other areas of interest in the 2030 Agenda. However, the lack of negative interaction between the SDGs identified in the analysis of this sample from DFIs suggests that there is room to expand knowledge about the negative effects between sectors (“spillover” effect) and the risk of cross-cutting agendas (such as issues of diversity, inequality, gender, race, quality work, among others) being ignored, for example, in the financing of infrastructure or innovation.

Based on a study conducted by ABDE and UNDP, it was possible to verify which SDGs were most promoted by the NDFS²⁷ (Graph 1). The data represent the percentage of resources made available for each SDG out of the total allocated by the NDFS for the set of SDGs.

Chart 1: NDFS funding allocated per SDG in the years 2020 and 2021 (in %)



Source: Prepared by ABDE and UNDP.

²⁷ It is worth noting that this data refers to a sample of 17 NDFS institutions. The analysis is the result of a first effort to quantify the NDFS’s performance in the SDGs. The methodology used is still subject to improvement. The final report, with the detailed analysis and description of the methodology, is currently being prepared by ABDE and PNUD.



SDG 8 and SDG 9 are the highlight of the NDFS's contribution, evidencing the system's role in supporting small-sized enterprises, the production and innovation sector, and in the investment in infrastructure.

SDGs with the highest participation in the funding by the NDFS are SDG 8 and SDG 9. They are the highlight of the NDFS's contribution, evidencing the system's role in supporting small-sized enterprises, the production and innovation sector, and in the investment in infrastructure. It is also worth noting the participation of SDG 7 (affordable and clean energy), SDG 2 (zero hunger and sustainable agriculture), and SDG 10 (reduced inequalities) in the results, reinforcing NDFS's contribution potential to a more inclusive, sustainable, and innovative development.

Initiatives such as the partnership between AGN-RN and Sebrae for the structuring of projects aligned with the 2030 Agenda, the publication by BDMG of a framework for raising funds through the issuance of bonds linked to the SDGs, and the participation of Basa in Pará's SDG Network (Rede ODS Pará, in Portuguese) to support the fulfillment of the 2030 Agenda should be encouraged and, when possible, replicated by other actors of the NDFS.

It is also important to highlight the potential of BNDES, Banco do Brasil and Finep's strategic operations to boost the 2030 Agenda, either by establishing milestones (directing credit to projects and programs connected to the SDGs) or by the ability to disseminate their actions to other actors of the system. Similarly, the NDFS can play a proactive role in promoting sustainable business and investment, as shown by Banco do Brasil's experience with ASG Funds and credit lines for renewable energy, sustainable agriculture, and entrepreneurship. These instruments direct investor resources to companies committed to positive social and environmental impacts and encourage clients to develop more sustainable businesses.

For an analysis of how the NDFS has contributed to the SDGs, it was verified the existence of actions linked to the themes of the 2030 Agenda. To facilitate this mapping, the SDGs were divided into four axes: environmental, social, economic, and institutional. This grouping is only intended to facilitate a preliminary diagnosis of what the NDFS has been carrying out in order to meet the 2030 Agenda. It is not the purpose of the analysis to present an exhaustive mapping, nor to lose sight of the indivisibility and integrality of the 17 SDGs. The division into axes proposed below presents information on the fulfillment of part of the SDGs in Brazil, as well as some actions by the NDFS within the topic of each axis, knowing that many times the initiative mentioned has direct and/or indirect impact on more than one SDG and more than one axis.

ENVIRONMENTAL AXIS



Clean Water and Sanitation (SDG 6), Climate Action (SDG 13), Life below Water (SDG 14), and Life on Land (SDG 15).

SDG 6. Brazil has advanced towards the fulfillment of the SDG 6 targets, signaling improvement in access to safe water, water resource management, and basic sanitation²⁸. However, an important bottleneck persists: the regional disparities in water and sewage network coverage²⁹, which require special attention to vulnerable groups and redirecting financing. Additionally, it further persists the stagnation of water productivity over the last decade, caused by barriers to the adoption of water-efficient technologies, especially in sectors with high demand.

SDG 15. Regarding the control of deforestation and the implementation of environmental conservation policies, a risk was identified due to the setback observed in half of the targets evaluated. There was a reduction in native vegetation from 70.4% in 1990 to 59.4% in 2020³⁰, particularly felt in the Amazon and the Cerrado, where deforestation increased from 21% in 2020 to 25% in 2021. Additionally, the greenhouse gases released into the atmosphere increased by 23.6% between 2020 and 2021 with the advance of deforestation in biomes such as the Amazon and the Cerrado. Desertification has also advanced, with approximately 13% of the Brazilian semi-arid region in an advanced stage of desertification³¹. In the Amazon, the deforestation rate is at 17%, close to the point where savannization will become irreversible.³²

To illustrate the financing needs of the environmental agenda, in 2019, the total annual global flow of funds for biodiversity protection was approximately \$124-143 billion per year versus an estimated annual need of \$722-967 billion to stem the global biodiversity loss as of

²⁸ Information panel on sanitation Available at: [SNIS - Home Page](#)

²⁹ SNIS 2021 Diagnosis. Available at: [SNIS - Diagnostics](#)

³⁰ UN Food and Agriculture Organization (FAO) and United Nations Statistics Division.

³¹ WORLD BANK, 2021.

³² NOBRE, 2020.

now until 2030³³. To enable the financing of the environmental SDGs in Brazil, a shift in paradigm is necessary to align public, private, and national and international public and private resources.

In this sense, the NDFS can be a multiplier by boosting financial flows for biodiversity conservation. Some examples demonstrate the engagement of NDFS institutions in financing the environmental axis of the SDGs. The BNDES, for example, acts in the environmental SDGs at a national level by managing the Climate Fund to support projects, studies, and financing of projects aimed at mitigating climate change. The bank also managed the Amazon Fund for actions to prevent, monitor, and combat deforestation and to promote the conservation and sustainable use of forests in the Legal Amazon. Moreover, the BNDES funds investments that contribute to the reduction of environmental impacts caused by agricultural and livestock activities, as in the BNDES ABC program.³⁴

Banpará has started structuring a financing program for business incubation and research in bio-economy products, such as, for example, the reuse of the açai seed for energy generation and water cleaning. Banco da Amazônia has financed the expansion, diversification, implementation, modernization, renovation, and relocation of sustainable enterprises in the North region.

Another example is Basa's Conexsus Socioenvironmental Fund (Fundo Socioambiental Conexsus), which unlocks access to the National Program for the Strengthening of Family Farming (PRONAF) by rehabilitating the credit of family farming cooperatives. The fund acts through guarantees for SMEs and cooperatives that cannot receive PRONAF resources – due to debts with the financial system – but that lead feasible businesses with growth potential. Cresol has also played an important role in financing cooperatives through the financing with sustainability conditionalities, such as PRONAF Bioeconomy and PRONAF Agroecology.

In the green and sustainable bond market, BNDES and BDMG were pioneering actors in the NDFS in the issuance of bonds to finance sustainable projects. In 2017, the BNDES was the first Brazilian bank to issue a green bond. In 2020, the BNDES issued a green financial bill and, in the following year, it launched the Sustainability Bond Framework (SBF), which facilitates the issuance of green, social, and sustainable bonds in Brazil and abroad, and which was supported by the

³³ Financing nature conservation: Bridging the financing gap for conservation of the global biodiversity. Available at: Financiando a natureza (tnc.org.br)

³⁴ BNDES SDG Panel. Available at: [Painel ODS - nossa contribuição para a Agenda 2030 \(bndes.gov.br\)](https://paineis.bndes.gov.br/ods)

Inter-American Development Bank (IDB). In the case of BDMG, US\$ 50 million in sustainable bonds were issued in 2020, the first of this modality in the country.

At the cooperative level, Sicredi issued US\$ 100 million in green bonds to implement the cooperative bank's sustainable strategy, with support from BID Invest and with a focus on SDG 13 – climate action, as well as SDG 9 (industry, innovation and infrastructure) and SDG 7 (affordable and clean energy).

Therefore, the performance of NDFS institutions, whether in the financing or structuring of projects, can contribute to increase the volume of public and private resources available, unlocking investments in sectors related to the environmental SDGs.

SOCIAL AXIS

No poverty (SDG 1), zero hunger and sustainable agriculture (SDG 2), good health and well-being (SDG 3), quality education (SDG 4), gender equality (SDG 5), improvement of the quality of life in sustainable cities and communities (SDG 11)

SDG 1. Estimates from FGV Social³⁵ highlight that extreme poverty in Brazil reached its lowest level in 2014 (3.3%), increasing again to 5.8% in 2019, and decreasing again in 2020 to 5.1% with the payment of the Emergency Aid to the most vulnerable groups during the Covid-19 pandemic. In this sense, the fulfillment of SDG 1 (no poverty) requires the Brazilian economy to be inserted into a virtuous dynamic of sustainable and inclusive development (IPEA, 2019).

SDG 2. Despite having made significant progress, even meeting part of the targets, the country's achievements with regard to the reduction of poverty are being reversed in part because they have not acquired a structural nature. According to the estimates from the PENSSAN Network for the year 2020, more than half of the Brazilian population presented some degree of food insecurity and, of this part, 43.4 million did not have enough food and 19 million faced hunger – a number twice as high as the one verified in 2018.

³⁵ Inequalities of labor impacts in the pandemic" (NERI, 2021)



In the social dimension of the SDGs, NDFS play a decisive role in triggering a virtuous dynamic of sustainable and inclusive development.

SDG 11. One of the main challenges for the fulfillment of SDG 11 targets are housing policies and access to public transportation and basic sanitation. Data from MUNIC 2020³⁶ show that only 35% of the Brazilian municipalities have public transportation by bus that serves the commuting between neighborhoods, districts, and locations within the municipality. In the Northeast and Midwest regions, this percentage decrease to 24.75% and 24.41%, respectively. Regarding sanitation targets, the data show a reduction in the coverage of household solid waste collection, mainly in the North and Northeast regions of the country, between 2010 and 2020³⁷.

SDG 5. Despite the progress in some goals, women's autonomy in economic, decision-making, and physical terms showed a reversal, distancing itself from gender equality. The country has made significant progress in creating a legal framework to eliminate the various forms of gender discrimination, however this has not reverted into elimination and/or effective reduction of gender inequalities. Violence against women remains high. From 2009 to 2019, femicide in residences increased by 10.6%, indicating a higher number of domestic violence. In 2020, there was a 0.7% increase in femicides within residences, with 75% of these occurring to 18-44 years old women, and 62% to black women. Violence against women is even higher among young and black women. In the last decade, the total number of black women victims of homicides increased by 2% while the number of non-black victims decreased 26.9%. All these indicators were deepened during the Covid-19 pandemic³⁸.

Regarding the NDFS's performance in the SDGs of the social axis, the system has a decisive role in triggering a virtuous dynamic of sustainable and inclusive development, specifically with respect to microfinance – as exemplified by BNB's action in microcredit and credit cooperatives such as Cresol, Sicredi and Sicoob – and access to social services, basic infrastructure, new technologies, means of

³⁶ Survey of Basic Municipal Information, prepared annually by IBGE.

³⁷ Source: National Sanitation Information System – SNIS. Available at: <http://www.snis.gov.br/painel-informacoes-saneamento-brasil/web/painel-setor-saneamento>

³⁸ Source: Brazilian Annual Report of Public Security (2021). Available at: [Anuario 2021 v8.indd \[bibliotecadeseguranca.com.br\]](Anuario 2021 v8.indd [bibliotecadeseguranca.com.br])

production and information and communication technologies. These are sectors that can count on a strong performance by the NDFS in public sector credit and in the financing of long-term investments. The NDFS's importance for the promotion of sustainable agriculture is noteworthy, considering that it is the biggest financier of the Brazilian rural and agricultural & livestock sector, reaching 79.3% of the total credit of the National Financial System for rural producers. The NDFS institutions are the main channels for the resources of the national rural credit programs. In 2021, according to the Central Bank's Rural Credit Matrix, the NDFS offered R\$ 74 billion in credit resources linked to programs aimed at supporting investments and costing in the segment.³⁹

The entities that compose the NDFS financed 91% of Pronaf's and 86% of Pronamp's credit (Financing for Investments and Costing of Medium-sized Producers) – the largest rural credit programs in the country – which represent volumes of R\$ 36 billion and R\$ 29 billion, respectively. Another highlight is the financing for the ABC Program (Program for the Reduction of Greenhouse Gases), which totaled R\$ 2.1 billion in 2021. Desenhahia, for example, has a relevant role in the financing of the sector. It offers different financing lines to the rural producer, such as the DR Rural Costing (financing of up to R\$ 5 million for costing) and the DB Rural Pre-Costing (financing of up to R\$ 5 million for the early purchase of inputs).⁴⁰

It is also worth highlighting the NDFS's role in financing research and development (R&D) for health technologies and innovations, as well as in supporting the modernization and improvement of the health infrastructure in the states and municipalities. These actions would have important cross-cutting effects with other SDGs, such as supporting clean water and sanitation works. To illustrate how the NDFS has performed on this SDG, it is worth noting the response of DFIs during the Covid-19 pandemic to working capital and investments in the health sector.

³⁹ The rural credit programs taken into account were the ABC Program, Funcafé, Inovagro, Moderagro, Moderfrota, Proirriga, PCA, Prodecoop, Pronaf, and Pronamp. Source: Rural Credit Data Matrix - MDCR - Datasets - Open Data Portal of the Brazilian Central Bank ([bcb.gov.br](https://www.bcb.gov.br))

⁴⁰ Available at: https://www.desenhahia.ba.gov.br/creditos/linhas_de_financiamento/

Some important examples were: BNDES's technical cooperation with the Brazilian Company of Research and Industrial Innovation (Empresa Brasileira de Pesquisa e Inovação Industrial) (EMBRAPII), which provided R\$ 20 million for the development of innovations focused on health; the creation of a credit line for the health sector with resources from the Northeast Financing Constitutional Fund (Fundo Constitucional de Financiamento do Nordeste, FNE), of Banco Nordeste; and Tecnova II/RS, which includes Badesul among its partners, for the promotion of proposals aimed at actions to combat the pandemic. Finep has launched a series of economic grant-in-aid calls for proposals for the development of technologies for Covid-19, such as, for example, the "Innovative Solutions to combat the Covid-19". Additionally, BDMG, Bandes and Afap credit lines have strengthened the NDFS's performance in the health sector at the subnational level.

The NDFS's performance on gender equality takes place especially through specific lines and/or credit programs for women entrepreneurs, with emphasis on Pronaf Mulher, which contributes to the recognition and emancipation of women in the agricultural sector. In addition to this initiative, it is highlighted the BDMG's "Female Entrepreneur of Minas Gerais" line of credit stands out, which was responsible for 19% of disbursements through BDMG Digital in 2019, the Goiás Fomento's "Female Entrepreneur" line, which increased by 139% the amount allocated by the institution to women in 2020, and Fomento Paraná's "Bank of the Women of Paraná" program, providing financing with reduced interest rates to support micro- and small-sized business of women in the state.

Regarding sustainable cities and communities, given that urban infrastructure is financed by various funding sources, including municipal resources, capital transfers, and credit operations, it is necessary to strengthen the NDFS's coordination so that resources reach their intended purpose and so that new instruments could boost activities in this area. By 2021, the NDFS accounted for 99% of the credit to municipalities⁴¹, and it is a key actor in supporting investment initiatives at the municipal level. The participation of subnational DFIs in the credit to municipalities is relevant, especially in smaller munic-

⁴¹ Sadipem, National Treasury. Data from 2021. Available at: <https://sadipem.tesouro.gov.br/sadipem/private/pages/index.jsf>

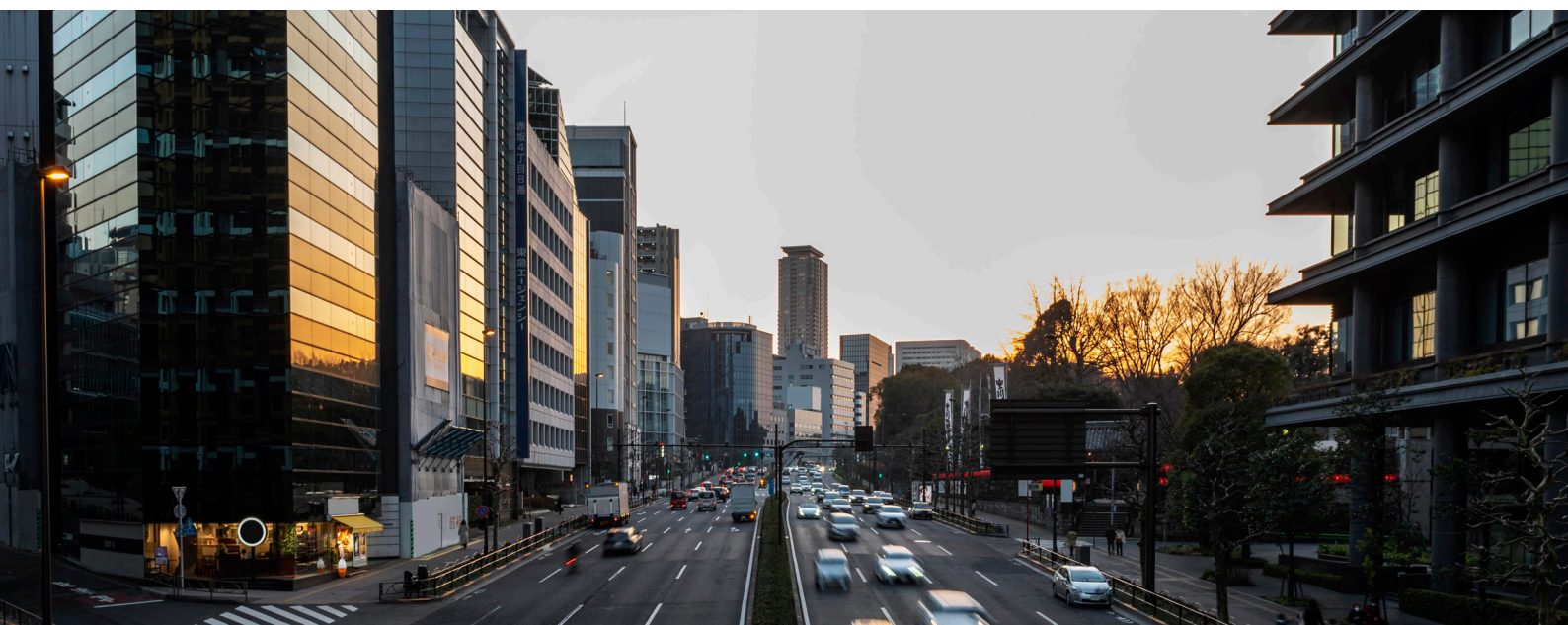
palities, since they operate with a lower average ticket, demonstrating the importance of the capillarity of the NDFS in the financing for development⁴². Therefore, a coordinated action of the institutions of the NDFS, directed to the financing of sustainable cities, could have an important impact on this issue.

In this context, it is relevant to highlight the case of Badesul, which has a technical advisory program within the Badesul Cities line to finance urban and social infrastructure in the state's municipalities; the BRDE, with the Intelligent Cities and Sustainable Projects line, in addition to Badesul, with the Intelligent ES Program aimed at financing innovation and urban planning in the state's municipalities⁴³. Another good example is the performance of Fomento Paraná, which follows an important institutional integration model for the structuring of the projects⁴⁴. With 73% of its credit portfolio committed to operations in the public sector, Fomento Paraná finances urban mobility and social infrastructure projects, such as construction of schools, health clinics, and water supply and waste management systems, improvement in public lighting efficiency, use of alternative energy, technological infrastructure, among others.

⁴² In 2021, subnational institutions accounted for 17% of the total financing for municipalities

⁴³ Other examples include Banco do Brasil, with Agenda 30 BB; BDMG, with the Municipalities BDMG Notice: sustainable cities line; urban line; sanitation line and machinery line; the Badesul, with the POE Pimes Badesul; the Advancing Cities/CEF, and the Sanitation for All.

⁴⁴ Fomento Paraná is part of the Municipalities Financing System, together with the State Secretary of Urban Development and Public Works and the Autonomous Social Service, Paranacidade.



ECONOMIC AXIS



Affordable and clean energy (SDG 7), decent work and economic growth (SDG 8), industry, innovation and infrastructure (SDG 9), reduced inequalities (SDG 10), and responsible consumption and production (SDG 12).

SDG 7. Ensuring reliable, sustainable, modern, and affordable access to energy for all is the focus of the SDG 7 targets, and it is the only SDG whose agreed targets have been fully met in Brazil. The successful result can be explained by the fact that the country has a composition of supply and installed capacity in renewable energy higher than the global average. However, there are still important challenges to be faced, such as the fragility of the electricity system (evidenced by the 2021 water crisis) and the high cost of energy for low-income families⁴⁵.

SDG 8. Between 2014 and 2016, the GDP per person employed in Brazil decreased at an average real rate of 2% per year, while the GDP per hours worked decreased at an average rate of 1.5% per year. The unemployment rate increased from 7.3% in 2012 to 12.7% in 2017. This decrease was driven by unemployment among women, which increased from 9.2% to 14.5% (IBGE). Several of these challenges were deepened during the Covid-19 pandemic. Economic sectors and production chains were affected by the severity of the crisis, especially as a result of lockdown measures to mitigate the health crisis.

SDG 9. Progress in SDG 9 may be compromised with the increase in the intensity of emissions and decrease with disbursements to research and development (R&D)⁴⁶. Between 2010 and 2018, the value added of the manufacturing industry as a proportion of the GDP decreased from 12.7% to 10.7%, while industrial employment as a proportion of total employment decreased from 11.8% to 10.5%.⁴⁷

⁴⁵ Luz Report, 2021. Available at: [por_rl_2021_completo_vs_03_lowres.pdf\[wordpress.com\]](https://www.por.br/rl/2021/completo_vs_03_lowres.pdf[wordpress.com]).

⁴⁶ Global Carbon Project and Maddison Project Database 2020 (BOLT, VAN ZANDEN, 2020) and IBGE. Available at: odsbrasil.gov.br and <https://doi.org/10.18160/gcp-2021>

⁴⁷ IBGE. Available at: odsbrasil.gov.br

SDG 10. The fulfillment of SDG 10 in Brazil requires an urgent solution for the reduction of economic asymmetries. The growth of the average household income of the poorest 40%, for example, was less than the national average and the average household income of the richest 10%⁴⁸. According to IBGE data, the proportion of people living below 50 percent of median income remained around 23 percent between 2011 and 2015, and has started to increase since then, reaching 24.4 percent in 2019. Racial income inequality in Brazil did not show substantial improvement in the period between 1986 and 2019 (IPEA, 2021)⁴⁹.

The Covid-19 pandemic has widened the gap between poor and rich in Brazil. According to a FGV research, the Gini index, which had already increased from 0.6003 to 0.6279 between the last quarter of the years 2014 and 2019, reached 0.640 in the second quarter of 2021, a value above all pre-pandemic historical series⁵⁰.

The SDGs of the economic axis have great relevance to the NDFS because they focus on strategic areas for the development and well-being of the population that depend directly on financing. It is no coincidence that industry and infrastructure make up the largest portion of BNDES's disbursements⁵¹. In science, technology and innovation, the Finep Inovacred Program, aimed at supporting innovation in MSMEs, has already financed more than R\$ 2 billion since 2013, through 15 DFIs⁵². It is a program that takes advantage of the capillarity of the NDFS to reach small-sized enterprises. Also, Finep and Sebrae launched the Finep-Sebrae Innovation Credit Program, a joint action within the scope of Inovacred, which combines credit and technical assistance for small-sized enterprises.

In the Covid-19 crisis, some public assistance and financing policies can be highlighted for their countercyclical role in maintaining the economic, social, and productive fabric, and for contributing to the increase of the resilience in the face of uncertainty. It is relevant to highlight NDFS's emergency actions within the scope of credit and guarantees, with a special focus on MSMEs – the main generators of income and employment in the economy. The measures adopted by the NDFS, in partnership with the national and subnational

⁴⁸ IPEA, 2019.

⁴⁹ Available at: https://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=38084&Itemid=9

⁵⁰ Available at: <https://cps.fgv.br/DesigualdadePandemia>

⁵¹ It is estimated that, from 2007 to 2016, 70% of the country's total infrastructure financing came from BNDES (YOKOTA et al., 2017 [1989] *apud* OECD, 2020, p. 35). In the 2014-2018 period, the BNDES disbursed the largest volumes to the industrial sector (on an average of 24% of the annual disbursements). In 2018, 55% of BNDES's disbursements across all sectors went to large companies (Ibid.).

⁵² Data until May 2021. Available at: <http://www.finep.gov.br/transparencia-finep/projetos-contratados-e-valores-liberados>.

government, aiming at emergency support were: (i) creation of new credit lines; (ii) creation and strengthening of guarantee programs and funds; (iii) improvements in financing conditions; (iv) extension of standstill; (v) expansion of resources in pre-existing lines; and (vi) actions focused on the health sector.

The mobilization and strong response capacity of the NDFS with regard to sustaining credit for the productive fabric can be seen in the figures gathered by ABDE on the system's performance in the MSME segment for this period. Of a total of R\$ 348.2 billion provided by the system for emergency measures between March 2020 and January 2021, R\$ 314.7 billion were destined for MSMEs – approximately 90%. The survey shows a total of 200 different measures adopted by NDFS institutions, 174 of which were implemented by ABDE's affiliates, distributed throughout the country and within the lines of action indicated in the previous paragraph. It is important to note that the analysis showed that all of NDFS institutions launched one or more support measures for MSMEs in this period.

Within the scope of guarantees, the Emergency Program for Access to Credit (PEAC) and the PEAC-Maquinhinhas, managed by the BNDES, and the National Program to Support Micro- and Small-sized Enterprises (Pronampe), managed by Banco do Brasil, and Guarantee Fund for Micro and Small-sized Enterprises (Fundo de Aval às Micro e Pequenas Empresas) (Fampe), the oldest guarantee fund in Brazil, managed by Sebrae, had great prominence in reducing barriers for access to credit for MSMEs, which were accentuated in the period of crisis caused by the Covid-19.

The NDFS plays a crucial role in supporting diversification of production and increasing economic complexity by making it possible to expand the production capacity of the manufacturing industry and, especially, of the more technology-intensive industries. An important challenge for the fulfillment of SDG 9 is how to stimulate research and development (R&D) within companies, as well as the use of resources and the adoption of clean and environmentally adequate technologies and industrial processes. It is worth highlighting the opportunity represented by the modernization of the management of National Fund for Scientific and Technological Development (Fundo Nacional de Desenvolvimento Científico e Tecnológico, FNDCT), which has

Finep as its executive secretary, protecting the fund against contingencies in the resources⁵³. This is a stable resource that can be used to drive the fulfillment of various SDGs through innovation-related activities.

With regard to the fulfillment of affordable and clean energy targets, it is worth noting that DFIs are pioneers in investing in renewable energy in Brazil. In 2019, the percentage of NDFS institutions that had lines aimed at the renewable energy generation and energy efficiency segments, distributed among the different sectors of the economy, was 82% for solar energy, 59% for energy efficiency, 36% for biofuels, and 32% for wind energy. The system can intensify its performance in the renewable energy sector by increasing the coordination level with municipalities, as well as enhancing support for technologies in which Brazil has great potential, such as biofuels, biomass, and green hydrogen.

It should be highlighted the BNDES credit programs for increasing the generation of electricity from renewable sources and for the production of biofuels; and the financing from the Northeast Development Superintendency (Sudene) and from the BNB.

On the energy efficiency theme, it is also important to highlight the performance of the NDFS's subnational institutions. Nine institutions⁵⁴ have differentiated credit lines with their own resources or through onlending from BNDES Fname renewable energy⁵⁵. It should be highlighted Badesc's credit line for investments in energy efficiency⁵⁶ for public companies in the public lighting sector; the Fomento Paraná's Energy Development (Fomento Energia) line⁵⁷ for the acquisition of more energy efficient machinery and equipment, and Bandes' Economia Verde (Green Economy) line⁵⁸. Moreover, all federal institutions have energy efficiency lines and programs, such as, for example, the FNE Solar Individuals (Sol Pessoa Física)⁵⁹ and FNE Green (Verde)⁶⁰ of Banco do Nordeste and the Green Energy (Energia Verde) line of Banco da Amazônia⁶¹.

⁵³ Supplementary Law No. 177/2021.

⁵⁴ AgeRio, Badesc, Desenbahia, Desenvolve SP, Bandes, Fomento PR, Badesul, BDMG, BRDE.

⁵⁵ Other examples are BNDES, Caixa Econômica Federal, BNB, Basa, Cresol, Sicredi, and Banco Sicoob.

⁵⁶ Available at: http://www.badesc.gov.br/portal/linha_eficiencia_energetica.jsp

⁵⁷ Available at: <https://www.fomento.pr.gov.br/Credito/FOMENTO-Energia>

⁵⁸ Available at: <https://www.bandes.com.br/Site/linhas/show?id=12&idLinha=110>

⁵⁹ Available at: <https://www.bnb.gov.br/fne-sol/pessoa-fisica>

⁶⁰ Available at: <https://www.bnb.gov.br/fne-verde>

⁶¹ Available at: <https://www.bancoamazonia.com.br/index.php/produtos-servicos/agronegocio/energia-verde>

INSTITUCIONAL AXIS



Peace, justice and strong institutions (SDG 16), Partnership and means of implementation (SDG 17)

SDG 16. The analysis shows that Brazil has regressed in the fulfillment of SDG 16, and that it has a long way to go when it comes to reducing violence, improving access to citizenship, and strengthening the State's institutions. Violence in Brazil has reached alarming proportions and is marked by gender, race, and age biases. Homicides in Brazil increased 4% over the previous year, placing the country among the most violent in the world⁶².

SDG 17. There was a strong deterioration in the indicators of the targets related to public and international finances in 2020 and 2021, verified by the jump in the federal government's net debt, the decrease in economic activity, the increase in unemployment, and the sharp outflow of foreign capital from Brazil. Internationally, there has been a reduction in the provision of technical cooperation throughout the country. Technical cooperation activities peaked in 2011, with the execution of 783 projects, and in 2020, the number was 139 initiatives⁶³.

⁶² Source: Brazilian Annual Report of Public Security (FBSP, 2021) and the Atlas of Violence (IPEA, 2021).

⁶³ Source: ABC (2021).



3. HOW THE NATIONAL DEVELOPMENT FINANCIAL SYSTEM MAY CONTRIBUTE TO ACCELERATE AND SCALE THE FULFILLMENT OF SDGS IN BRAZIL

Promoting Transformative Development: Mission 2030

The SDGs may be translated to the financial system from the concept of sustainable finance, which integrates sustainability aspects into the decision-making process, policies, and institutional arrangements of the financial market, contributing to a strong, sustainable, balanced and inclusive growth⁶⁴. In this definition, sustainability refers not only to environmental aspects, but also to social, economic, and institutional aspects. Financing models developed from the concept of sustainable finance are therefore intended to be more comprehensive than the traditional financing model, or even those of low-carbon, climate, green, or socioenvironmental financing.

In the case of Brazil, thanks to its privileged positioning – institutions distributed throughout the national territory and linked to different levels of government – the NDFS has been able to identify and support sustainable projects at the local, regional, and national levels. Using its local expertise, its potential to mobilize private capital, its capacity to structure projects and public-private partnerships, and, notably, its potential to attract international resources to finance the sustainable development agenda in the country, the NDFS is proving to be a central actor in defining strategies to enable the implementation of large-scale investments required to fulfill the priorities established for a sustainable transition.

The diagnosis presented in the previous section showed that the NDFS institutions, although facing limitations, have sought to act with an integrated view at environmental issues in their financing, also bringing social and economic aspects into their financing policies, in an integrated perspective of sustainable development.

In this line, in order to strengthen and expand this performance, the ABDE 2030 Plan uses the mission-oriented policy approach⁶⁵ to guide the National Development Financial System in the construction of a strategy capable of enhancing its role in promoting sustainable development. The proposal of the mission seeks to engage NDFS actors in facing major challenges that can transform production, distribution and consumption patterns in various sectors and social groups in favor of value creation, inclusion and sustainability.

⁶⁴ Sustainable finance: an overview (GTZ, 2020). Available at: [Sustainable Finance_English_version.pdf \(chalk.de\); OECD/UNDP, 2020; and IFC, 2021](#).

⁶⁵ Mazzucato, M. (2018). Mission-oriented Innovation Policy: Challenges and Opportunities. Available at: [OP-ICCJ180035 803..816 \(ucl.ac.uk\)](#)

The goal of the mission points out to the strategic level of intervention, it being understood as the goal of a transformative development. In turn, potential projects represent the tactical level, that is, the different possible paths to achieve the goal of the mission⁶⁶, while proposals represent how the projects may be carried out⁶⁷.

The ambition of the missions is proportional to their financing needs, which positions the NDFS as a central actor in addressing the identified challenges. Thus, strengthening the system is deemed a condition for the delivery of missions. By providing conditions for NDFS actors to be better prepared and equipped to contribute in a robust and efficient way to the fulfillment of the missions, it is expected a proposal of an agenda to strengthen the National Development Financial System as an outcome when defining the missions.

The next section presents a set of five missions with transformative potential in terms of contribution to sustainable development in Brazil, including, whenever possible, a general scope of projects and proposals to guide the performance of the National Development Financial System in order to fulfill the missions. Additionally, the outlines of some of the possible projects linked to the missions will be presented, as well as development possibilities that may be offered by the NDFS.

The five missions are:

- Digital, smart and inclusive future
- Ecosystem for innovation in bioeconomy and the Amazon
- Engaged agribusiness
- Infrastructure and sustainable cities
- Health as a driving force for development

⁶⁶ The selection of potential projects took into account their feasibility according to the "SMART" rule: Specific, Measurable, Achievable, Relevant, and Timely bounded

⁶⁷ As important as structuring the "vertical" logic of the mission (strategic level conditioned to the fulfillment of the tactical level which, in turn, is conditioned to operational compliance), there is also the need to structure its "horizontal" logic, that is, how to ensure that the delivery of each of the missions is dialoguing with each other (and with other missions). For this, it would be needed indicators of the status of the mission fulfilled by each DFI. These indicators could be agreed upon by the DFIs of the system, or even between the DFIs and specific companies.



4. MISSIONS FOR THE NATIONAL DEVELOPMENT SYSTEM

Digital, smart and inclusive future

The agenda on the digitization of the economy has been presented as essential for the economic development of countries (SDG 9 and SDG 8). The investment needed for this area is fundamental for the fulfillment of the SDGs, and the NDFS has a central role in promoting everything from the support to the digitization of and generation of new jobs (SDG 8) by small-sized enterprises, to the entire process of digital infrastructure and investment in innovation (SDG 9), to several areas such as smart cities (SDG 11) and smart agribusiness. In addition, it is worth noting that Brazil has unsatisfactory levels in the indicators associated with SDGs 5 and 10, with room for a greater contribution from the NDFS to the fulfillment of this agenda, even though several system actions – internal and external – are already underway, aimed at addressing gender issues. Nevertheless, equal opportunities require an integrated approach that consider how different social markers – gender, race, class, sexuality, among others – interact with each other.

Figure 2: Digital, smart and inclusive future



Source: Own preparation. Adapted from Mazzucato (2018).



This mission is essential to contribute to greater added value in the economy and to the generation of decent jobs.

Based on the premise that the boost for innovation comes from the inclusion of gender and racial diversity and the understanding of the intersectionality phenomenon – that is, the interaction between different social markers – this mission has the potential to have a broad impact on the indicators of SDG 5 and 10. Moreover, this mission is key to contributing to a higher value added in the economy and in generating decent work (SDG 8). At the same time, these characteristics demand multifaceted action for their fulfillment (Figure 2). Some projects, still in the conceptual phase, offer ways to achieve the mission digital, intelligent and inclusive future

- Providing access to information technologies for 5G digital transformation in the city and countryside
- Expanding digital opportunities for business and research led by women
- Preparing small and medium-sized enterprises (SMEs) and workers for digitized production chains (Smart Networks)

a. Providing access to information technologies for 5G digital transformation in the city and countryside

Investment in Industry 4.0 and in digitization must be accessible to companies of different sizes and in different regions of the national territory, since the difficulties in accessing the internet, which reflect issues of regional inequalities, may worsen with the arrival of 5G technology. Policymakers and public policy implementers must be prepared for this new reality.

The transformation of reality requires investment in infrastructure that allows a more equal access to digital technologies. The advent of 5G technology contributes for a concentrated investment in technological innovation which the NDFS could be a part of, as well as the push for the digitization of MSMEs, ensuring that companies of different sizes can absorb the benefits of 5G technology and other technological innovations that may derive from it.

Some relevant actors for this agenda are the federal banks and Finep, in the provision of credit lines to expand equal access to information technologies. The NDFS could act to: (i) develop partnerships with relevant agents in the implementation of 5G in the country; (ii) expand and increase the capillarity for the financing of development projects and incorporation of new technologies; (iii) provide credit and guarantees

for small-sized providers; and (iv) promote training and digitization of companies of all sizes.

Regarding specifically the expansion of 5G technology in the country, the NDFS needs to work in direct dialogue with Anatel's working groups together with the winning companies of the 5G Auction⁶⁸. The Ministry of Communications announced the disbursement of R\$ 368 million in resources from the Fund for Technological Development of Telecommunications (Fundo para o Desenvolvimento Tecnológico das Telecomunicações, FUNTTEL) for investments in innovation and technological development, with specific lines for 5G implementation in the country, to be disbursed by the BNDES and Finep. At the industrial level, the Brazilian Agency for Industrial Development (ABDI), through its network performance, aims at creating a favorable environment for the adoption of technologies by the industrial sector in Brazil, being an important partner for NDFS institutions with actions aimed at supporting the production sector in the incorporation of technologies.

The entry of 5G opens space for the development of a series of innovations aimed at contributing to increase competitiveness of domestic companies, whether they absorb the technology or develop it. For this reason, the NDFS may work at both ends. Finep plays a central role in the development of innovations, stimulating companies to invest more through the use of economic subsidies and non-refundable resources to promote the interaction between scientific and technological institutions (IST) and companies. In addition, the BNDES and institutions such as BDMG and BRDE may support investments in 5G connectivity infrastructure in the states and municipalities, in addition to contributing to the innovation agenda.

Regarding financing for small-sized providers, it is worth highlighting the possibility of using the Fund for Universalization of Telecommunications Services (Fundo de Universalização dos Serviços de Telecomunicações, FUST) to finance projects that promote the democratization of the internet and new technologies, including refundable and non-refundable modalities. The FUST may also be used as a guarantee fund, especially for small-sized providers who have difficulty in offering guarantees.

⁶⁸ Auction held by Anatel on 11/05/2021. The expectation is that the investment plan reaches R\$50.2 billion for the fulfillment of the obligations associated with the batches awarded. Available at: <https://www.gov.br/anatel/pt-br/assuntos/noticias/anatel-realiza-leilao-do-5g>.

To promote the training and digitization of companies of all sizes, it is worth highlighting Finep Inovacred, which, although not directly related to digital infrastructure, supports its implementation by financing MSMEs in the development of new products, processes and services, aiming at increasing competitiveness of companies at the regional or national level. Sub-national banks and development agencies, such as Desenvolve SP and BRDE, are important operators of this line of financing.

Thus, in addition to credit, the NDFS may act with economic subsidies, innovative blended finance arrangements, project structuring, and could also align financing agendas with investments linked to the 5G auctions (connecting supply and demand, combining public and private resources for initiatives to boost connectivity infrastructure in the country).

Cases of NDFS performance

BNDES Crédito Serviços 4.0 - Financing line focused on contracting technological services associated with the optimization of production, advanced manufacturing projects feasibility, and implementation of smart city solutions and the like.

Finep Conecta – Stimulates cooperation between companies and Scientific, Technological and Innovation Institutions (STIs) to provide knowledge generated within STIs to Brazilian companies, promote greater alignment of the goals of National Science to business demands, increase spending on R&D, and encourage projects with greater technological risk.

Finep 5G – Support to the development of 5G technologies and their adoption in the country.

Bandes's experience with public-private partnerships in the execution of the Intelligent ES Program, a program with potential to finance telecommunication infrastructure and technological solutions, may be an example to be explored at the subnational level. In a different direction, Desenvolve MT has established a partnership with Senai's Tec Hub and state universities to structure development poles and connect state and academia, aimed at fostering the technology ecosystem in



5G technology opens up new investment opportunities. The NDFS can take advantage of this window of opportunity to launch new guarantee funds with a focus on digital connectivity (...)

the state. This interaction between different innovation ecosystem actors at the state level can be stimulated in all regions of the country. The subnational execution of Finep's and BNDES's credit lines, such as Inovacred, is another example to be explored and expanded by other NDFS institutions.

An important international benchmark is the European Commission's Funding for digital in the 2021-2027 Multiannual Financial Framework used to finance the Shaping Europe's digital future program. This is a financial framework consisting of different financing instruments aimed at digitization, including both budget funds and instruments catalyzers of private investment. Regarding the latter, it should be highlighted the Connecting Europe Facility (CEF Digital) program, which supports not only the connection of smart cities, but also the creation of uninterrupted Internet corridors in places with highest economic demand to be financed by the private sector.

5G technology opens new investment opportunities. The NDFS may take advantage of this window of opportunity to launch new guarantee funds focused on digital connectivity, using, for example, FUST's resources for small-sized providers. A possible innovation in terms of financial instruments would be social tech bonds, derived from the concept of social bonds, however with specificities aimed at guaranteeing the digital inclusion of commonly excluded identity groups and populations living in remote communities. However, the success of a strategy that combines several financial instruments requires that they be articulated within the same framework or strategy as proposed in the Multiannual Financial Framework, and in tune with the 5G implementation schedule in the country.

b. Expanding digital opportunities for business and research led by women

This project aims at expanding and enhancing female participation and leadership in business and research through the expansion of digital opportunities, contributing to the reduction of barriers faced by women in running their businesses and/or conducting research (SDG 5 and SDG 9). Access to digital tools allows businesses to modernize and be able to follow the ongoing digital change.

NDFS's contribution involves the adequacy of financial instruments aimed at stimulating female entrepreneurship beyond working capital. Providing conditions for digital opportunities to be taken advantage of by women in their business and/or research would also involve financing business plans with support programs; requirement of feasible guarantees; improved payment terms tied to conditionalities.

A possibility to be explored would be models with the use of priority non-refundable (Grant) in order to reduce the risk of operations and encouraging female entrepreneurship projects. These instruments, if appropriate for the female target audience, can contribute to more women being able to propose and make investments of greater volume and soundness. In addition, risk analysis of projects with these themes could be taken into account differently by the NDFS if there was guidance from the regulatory body in this regard.

Cases of NDFS performance

Female Entrepreneur Program (Programa Mulheres Empreendedoras) (AGE) – Finances female entrepreneurs' business plans beyond working capital, allowing women to make safer investments. The counterpart is training and formalization.

Innovative Women Program (Programa Mulheres Inovadoras) (Finep and MCTI) – Offers acceleration, specifically for startups led by women, aiming at increasing female representation in the national entrepreneurial scenario through training.

One innovative instrument that deserves to be highlighted is the gender bonds – understood as social bonds⁶⁹ with gender specificity. Morocco's experience with gender bonds can serve as a benchmark for Brazil⁷⁰. It is important that the NDFS be stimulated and enabled to offer innovative solutions, adapting its conditionalities, so that more and more women can "break the glass ceiling"⁷¹.

⁶⁹ According to the Social Bond Principles (SBP), social bonds are any type of bond instrument where the proceeds, or an equivalent amount, will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Social Projects. These projects must be in line with the four key components of the SBP: i) use of proceeds; ii) project evaluation and selection; iii) management of proceeds; and iv) reporting.

⁷⁰ One of Morocco's largest banks has announced a new financing solution dedicated to female project leaders. These are subordinated bonds, called gender bonds, whose funds raised are intended exclusively for financing female entrepreneurs and self-employed women.

⁷¹ The Metaphor coined by the feminist movement meaning "breaking the glass ceiling" in reference to barriers to the careers of high-income women in the United States. This is a concept used to refer to obstacles that hinder the progress of minority women, as well as minority men.

Legislative follow-up

PL 238/2015 – determines the equality of working conditions, opportunities and remuneration in the public service, in order to guarantee gender and race equality in the occupation of positions and careers in the public activity.

PL 1883/2021 – provides for mechanisms to facilitate credit to micro and small-sized enterprises controlled and managed by women and to individual micro-entrepreneurs.

c. Preparing small and medium-sized enterprises (SMEs) and workers for digitized production chains (Smart Networks)

The process of digitizing businesses and services, driven by the Covid-19 pandemic, enables companies of all sizes and sectors to become more productive and efficient. A window of opportunity for generating decent work (SDG 8) opens as more entrepreneurs understand and have access to the benefits of digitization (SDG 9). At the same time, it can be observed an increasing incentive to the inclusion of excluded identity groups in the economic activity (SDG 5), which directly contributes to income generation and fosters entrepreneurship, the opening of new markets, and new opportunities of decent work.

In this sense, attentive to this movement towards a new technological paradigm, the NDFS can use resources to support the process of digitization of SMEs from different sectors, helping small and medium-sized businesses to be able to respond and adapt in a timely manner to the ongoing technological changes, taking advantage of the benefits in terms of cost reduction and productivity. Support to SMEs is one of the NDFS's strongest activities, growing every year. During the Covid-19 pandemic, the growth of NDFS support to the SME segment grew by 57%, which reinforces the system's ability to quickly and robustly meet the needs of small to medium-sized enterprises in the country.

Given the importance of the role of subnational DFIs and credit unions in supporting SMEs, larger institutions, for example BNDES and Finep, could take advantage of the capillarity and reach of those DFIs to form partnerships that would allow them to leverage the available credit for small and medium-sized demands. In this sense, programs focusing on the digitization of SMEs could scale up within the NDFS. The digitization of this segment of companies is essential for a sustained productivity gain in the economy. Some examples of NDFS programs aimed at this agenda are Finep Inovacred 4.0 and BNDES Crédito Serviços 4.0. An important complement could be the participation of technical and technological assistance institutions, such as Sebrae, Senai and others in these financing lines via assisted credit structuring.



5. ECOSYSTEM FOR INNOVATION IN BIOECONOMY AND THE AMAZON

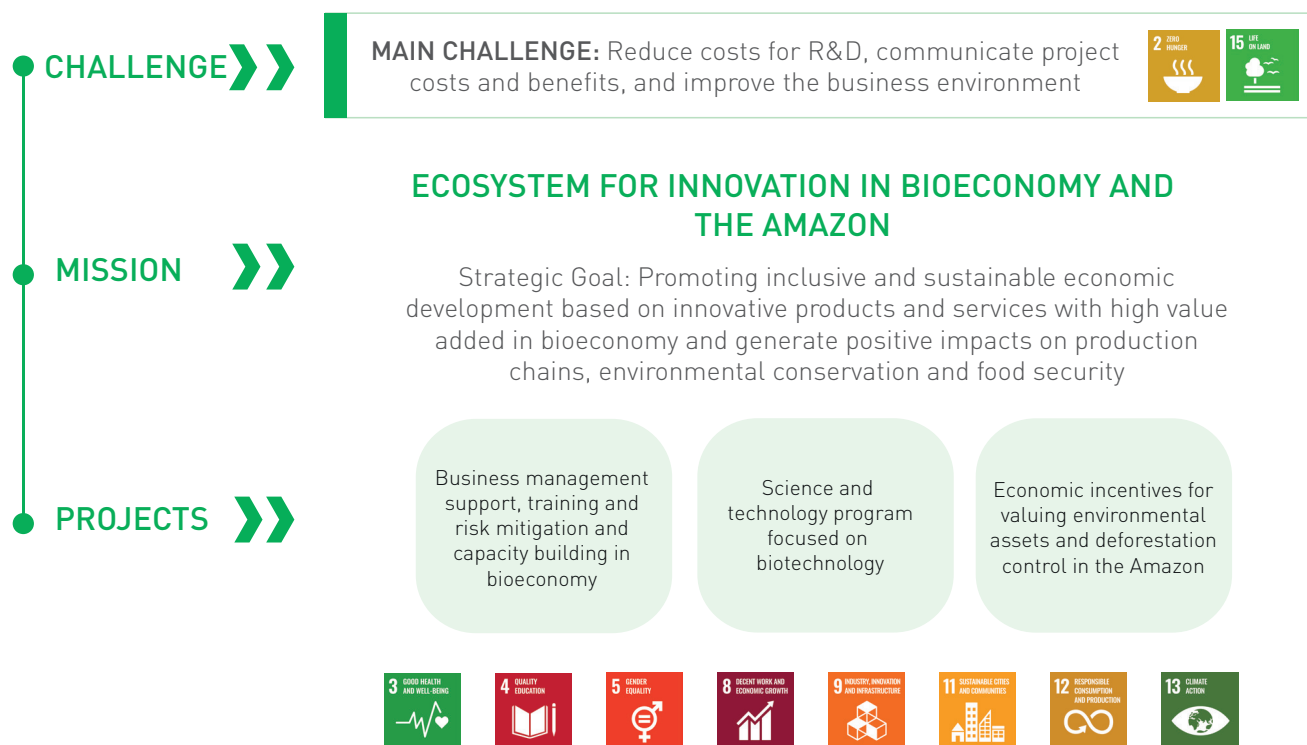
Bioeconomy offers an opportunity for Brazil to promote economic growth and generate work (SDG 8) on a sustainable basis, in addition to improving society's quality of life and protecting the environment (SDG 15).

The bioeconomy contributes to the solution of social and environmental challenges (SDGs 11 and 13) by promoting equitable access (SDGs 4 and 10) for small producers of food and sociobiodiversity products⁷² – particularly women, black people, traditional populations and communities (SDG 5) – to arable land.

Equitable access to land has positive effects on agricultural productivity (SDG 4) and conscious consumption (SDG 12), and contributes to reduced pesticide use, health and well-being (SDG 3), and poverty reduction (SDG 1). In addition to products with high added value and innovation (SDG 9), the bioeconomy, together with family farming, also plays a crucial role in promoting food security (SDG 2) in the North and Northeast regions. Therefore, providing resilience and robustness to the bioeconomy and family farming helps to protect them from external shocks.

The mission Ecosystem for the innovation in bioeconomy and for the Amazon is born out of the challenge to build a more favorable environment for economic activity from bioeconomy and for the Amazon (Figure 3). The promotion of an ecosystem with this focus is justified by the high potential for technological innovation associated with the bioeconomy. Moreover, the bioeconomy is directly related to the maintenance of environmental assets through carbon sequestration, nutrient cycling and water provision, among others.

Figure 3: Ecosystem for the innovation in bioeconomy and for the Amazon



Source: Own preparation. Adapted from Mazzucato (2018).

The projects of the mission Ecosystem of innovation in bioeconomy and the Amazon still in the conceptual phase, offer ways to achieve the mission. They are:

- Business management support, training and risk mitigation and capacity building in bioeconomy
- Science and technology program focused on biotechnology
- Economic incentives for valuing environmental assets and deforestation control in the Amazon

a. Business management support, training and risk mitigation and capacity building in bioeconomy

Besides representing an area still under development in Brazil, bioeconomy projects are usually managed by or involve micro and small producers from local communities along the production chain. Bioeconomy and business management knowledge is still limited, and therefore the necessity for training and risk mitigation of business is a challenge for the sector. In this sense, the NDFS could offer credit, technical assistance and training to strengthen productive arrangements, generate new business opportunities in the less developed regions of the country, thus contributing to the development of the bioeconomy at the national level and, consequently, to progress in gender equality, education, and decent work promotion.

The protagonists of this project would be the public and cooperative banks and the development agencies, which would act as credit vectors for sociobiodiversity products in the Legal Amazon and other Brazilian biomes. Sebrae and development agencies could operate in capacity building, risk mitigation and management of innovative businesses. Together, these institutions would work towards the creation, strengthening or expansion of (i) financial instruments; (ii) access to funding by DFIs; (iii) access to credit, training in bioeconomy and business management by micro and small producers in local communities; (iv) partnerships of NDFS institutions with organizations that already operate in the field of innovation in the bioeconomy; and (v) institutional capacities of the actors in the bioeconomy system. Each of the strategies, relevant NDFS actors, examples of replicable initiatives and international benchmarks are described in the following paragraphs.

⁷² The concept of sociobiodiversity concerns the goods and services generated from biodiversity resources, aimed at the formation of production chains of interest to traditional peoples and communities, which promote the maintenance and appreciation of their practices and knowledge, generating income, and improving their quality of life and the environment in which they live.

With regard to financial instruments, development agencies in the North (Afeam, Afap, among others) and Northeast (Desenvolve Alagoas, AGE, AGN, Desembahia, among others), and cooperative banks (Sicredi, Sicoob and Cresol), could take advantage of their large capilarity to expand the offer – especially to women, black people, the indigenous population and quilombolas – of credit, technical assistance and training in sociobiodiversity products. Federal banks, such as BB, BNDES, BASA, and BNB, are also relevant actors in the development of the bioeconomy, especially in the North and Northeast regions, as they have robust structures capable of potentializing the bioeconomy in these regions through the creation of new financial instruments, greater ease in attracting international resources, and the establishment of international cooperation partnerships.

It should be highlighted partnerships with impact investment, private equity, accelerators, venture builder, venture capital and seed capital institutions focused on sociobiodiversity products. An example would be a greater interaction with the priority programs of the informatics law in the North region, such as Suframa's Priority Program in Bioeconomy (Programa Prioritário em Bioeconomia, PPBio)⁷³, aimed at diversifying and boosting investments for the sustainable economic exploitation of biodiversity. The PPBio is an innovative instrument that allows the private sector to invest in the bioeconomy agenda without management burdens and with the technical support of Idesam and other science and technology (S&T) institutions involved in the initiative.

⁷³ The Superintendency of the Manaus Free Trade Zone (Suframa) is an autarchy affiliated to the Ministry of Economy. It manages and controls tax incentives granted to companies established in the Manaus Free Trade Zone, in addition to promoting development strategies for the entire Western Amazon region.



Another interesting initiative was the approval of the Amazon Bioeconomy Fund, with resources from the Green Climate Fund (GCF) and operated by the IDB⁷⁴. The fund is intended to leverage investments for adaptation and mitigation of the impacts of climate change in the Amazon basin through innovative bio-businesses that seek to conserve the ecosystems and biodiversity of Amazon, increase climate resilience, and improve living conditions in Amazonian countries. In this sense, an alternative to enhance synergy and explore NDFS's capillarity aiming at increasing its access to funding for bioeconomy projects, would be through the creation of funds organized by federal banks, in which smaller development agencies would operate as onlenders, while observing institutional limitations.

Regarding access to credit, development agencies could strengthen information and financial education programs with a view to expanding knowledge about "green lines", such as Pronaf's Bioeconomy (Bioeconomia), as well as access to and maintenance of financial resources by extractive workers. Another way to expand the local communities access to credit would be through "proximity finance" and the financial agents' internalization, enabling a closer relationship between those who operate rural credit and those who wish to access it. To this end, it would be necessary to seek the support of local partner institutions and impact investment financial institutions to unlock credit, reduce guarantees, and share risk. The intermediation between Cooperativa Sementes do Marajó and Basa carried out by Conexus with resources from Pronaf B, and the integration of special guarantee funds for rural credit by Fideicomisos Instituidos en Relación con la Agricultura (FIRA), in Mexico, are examples of how to generate more security in operations with this profile.

Training in entrepreneurship for micro and small producers from local communities could be led by Sebrae and development agencies – including a partnership with Emater, Senar, Senai, NGOs, among others – via education and training programs in technology, sustainable management, and administrative and entrepreneurial skills. An example to be strengthened is Sebrae's "Inova Amazônia" program, which offers mentorship grants for training in entrepreneurship. In addition, Sebrae could offer training and advisory services to SMEs so that they are able to operationalize the procedures of the Access to Genetic Resources Law⁷⁵.

⁷⁴ Source: [GCF approves creation of the Amazon Bioeconomy Fund \(Fundo de Bioeconomia da Amazônia\), joining the IDB | IADB Initiative](#).

⁷⁵ Law 13.123/2015 regulates access to genetic heritage, associated traditional knowledge, and the sharing of benefits from the Brazilian biodiversity.

In addition to funds intended to finance and support startups, SMEs and young entrepreneurs, countries such as Norway and Singapore have created funds for training in bioeconomy⁷⁶ that could be replicated in Brazil. Training in bioeconomy can also be carried out via development agencies, cooperative banks and federal banks with international partner institutions, such as the public notice issued by the German Agency for International Cooperation (GIZ) for cooperatives and family farming associations in the priority chains of cocoa, açai and Brazil nuts in the states of Acre, Amapá, Amazonas and Pará, within the scope of the Bioeconomy and Value Chains project.

Regarding strengthening business management, BNDES, Basa and BNB have the potential to support actions for the commercial promotion of bioeconomy products, which can be done in partnership with the Brazilian Trade and Investment Promotion Agency (Agência Brasileira de Promoção de Exportações e Investimentos) (Apex-Brasil). The creation of a seal of origin for bioeconomy products, with the goal of adding value and supporting the protection and preservation of the Brazilian biodiversity, could contribute to improve the management of innovative bioeconomy products, as well as to provide greater access to international markets.

The NDFS could also support training in bioeconomy for the development of innovative production technologies (whether in handling, processing, marketing) to take advantage of product waste. Partnerships between development agencies, which operate locally, and institutions such as Embrapa and Emater, municipal agriculture departments, universities and research institutions (e.g. SENAI Innovation Institute for Biotechnology) could be built from the definition of strategic sectors⁷⁷. In several countries, strategies for the promotion of the bioeconomy include the creation of funds to raise funds for the development of technologies as in South Africa and Colombia⁷⁸. These and other experiences can be studied in order to inspire appropriate solutions for the Brazilian context.

⁷⁶ FRAM – improvement of management skills, and Startup SG Founder, respectively.

⁷⁷ For example, the health sector could be the focus of some of these partnerships. In this sense, NDFS institutions could collaborate with EMBRAPA and associations of the pharmaceutical sector to promote technological innovation in the pharmaceutical sector based on sociobiodiversity products.

⁷⁸ In the case of Colombia, the country has the *Fondo Acción* for training in the development of technologies for the exploitation of Achiote, and the development of educational activities on scientific innovation (innovation, entrepreneurship, transfer of results, and protection of inventions via intellectual property).

Furthermore, federal banks could offer training programs to development agencies in order to understand the differences between bioeconomy credit and traditional rural credit, increasing knowledge of the functioning of sociobiodiversity production chains, and bringing financial agents closer to economic agents promoting the bioeconomy. In addition to training and proximity to bioeconomy financing themes, NDFS institutions could also expand partnerships with institutions that promote training on the risk of deforestation in credit for agricultural activities, such as UNEP-FI through the Good Growth Partnership initiative.

In that sense, it is worth noting the initiative led by ABDE and the IDB named Financing Alliance for the Amazon (Aliança pelo Financiamento da Amazônia), aimed at strengthening and organizing the financing network for sustainable and inclusive development in the Legal Amazon, especially through the mobilization of institutions associated with ABDE operating in the region, and the development of financial instruments suited to the local reality. The Alliance is expected to be a hub for generation and dissemination of information and best practices that can be used by NDFS institutions operating in the region.

The coordination of financing and development initiatives allows the identification of synergies and complementarities in the actions of the different actors linked to sustainable financing in the region, thus contributing to potentialize the impact of initiatives underway and/or under development. In this sense, the Alliance will make it easier for the actors linked to sustainable financing to have a broader and more cross-cutting knowledge about the NDFS's performance as a whole in the Legal Amazon region, allowing the system to reach its full potential for transforming the local reality.

b. Science and technology program focused on biotechnology

To leverage an innovation ecosystem in bioeconomy, it is necessary to create and strengthen science, technology and innovation (ST&I) initiatives that can develop new products and improve value chains, contributing to the preservation of the country's different biomes. Such initiatives are directly related to SDG 15 and SDG 9 by supporting the development of new technologies and adding value to produc-



(...) There is the possibility of a joint action to leverage the implementation of innovation ecosystems and strengthening of local chains.

tion chains (e.g. new materials that can be inserted into different production chains, biopharmaceuticals, biofuels, among others). They can also generate positive impacts for the reduction of inequalities, the strengthening of gender equality and racial diversity (SDG 5 and SDG 10).

Considering that several DFIs operate in this segment (BNDES, Finep, Basa, Sebrae, Banpará, Afeam and Afap, BNB, among others), there is the possibility of a joint action to leverage the implementation of innovation ecosystems and strengthening of local chains. It would also be possible to use this network of actors to stimulate the creation and expansion of new “forest laboratories”, combining local traditional knowledge, scientific data, and technological apparatus, including communication, to provide instruments for local communities.

To this end, financial instruments already available in these institutions can be used, such as lines of financing for innovation focused on bioeconomy products. Partnerships with local institutions, such as universities, technical and technological assistance networks (Emater, Senai, Senar, and Embrapa) are important for these initiatives to be successful. Moreover, the support for small-sized enterprises and entrepreneurs is essential to maintain the forest standing, as in Amazon’s case. In this sense, a partnership with Sebrae would allow the development of a support network for innovative companies and local entrepreneurs.

The NDFS’s role in this agenda may be expanded through a combination of financial instruments. For example, the use of non-refundable grant for university-business interaction; economic subsidy to support SMEs; and credit for the production of innovative products. In this line, the same company could receive resources from different modalities in different phases of the project throughout the innovation chain. This mix of instruments could be leveraged by the capillarity of the NDFS.⁷⁹

⁷⁹ Currently, several institutions act in innovation hubs, for example the Amaz Aceleradora de Impacto, the CERTI, Plataforma de Parceiros pela Amazônia, Amazônia Ativa, AmazôniaLab, BioTec Amazônia, and other bioeconomy projects.

Cases of NDFS performance

Inova Amazônia (Sebrae) – program that seeks to unite science and technology to generate business with a focus on the sustainable use of natural resources, encouraging entrepreneurs and small entrepreneurs to research and consciously use the biodiversity, so that its resources are renewed during use.

Finep/MCTI Amazônia Program (Finep) – program aimed at promoting the sustainable economic and social growth of the population living in the Brazilian Amazon. These are economic subsidy resources for Innovation projects in the areas of bioeconomy and digital transformation – to be developed by companies based in the North region.

c. Economic incentives for valuing environmental assets and controlling deforestation in the Amazon

Controlling deforestation and valuing the forest standing and its environmental assets through the use of economic incentives allows for the strengthening of initiatives linked to the bioeconomy in the Amazon. Such incentives have impacts on protecting the biodiversity, encouraging sustainable production and consumption, as well as reducing inequalities and emissions.

To achieve these benefits, NDFS banks could be trained to operationalize resources from Payment for Environmental Services⁸⁰ (PES) arrangements, such as carbon capture and water regulation, valuing environmental assets and in line with the National PES Policy. A concrete example is Banded's Reforestation Program (Programa Reflorestar) through state PES, an initiative that could be replicated in other DFIs in the system, respecting the limitations of each institution.

⁸⁰ Law 14.119/2021. PES arrangements provide that the external beneficiaries of environmental services make direct payments to the providers of these services, owners of the environmental resource, through contracts and conditions that guarantee that they will adopt practices of conservation and/or restoration of ecosystems.

Internationally, it is worth noting Costa Rica's PSA policy, which can serve as a benchmark for the regulation of the instrument in Brazil⁸¹. On the other hand, the Kunming fund opens a new possibility for green financing and, together with other international funds and consortia, such as Consórcio Brasil Verde, it has resources that could be operated by subnational DFIs.

The NDFS has other financial instruments at its disposal, such as the issuance of social and green bonds – for example the BNDES and BDMG programs for issuing green and sustainable bonds – and decarbonization credit via biofuels (CBio). The BNDES could also expand the BNDES Crédito ASG program, which offers differentiated interest for reforestation wood projects, equipment for renewable energy and energy efficiency, mining and steel, to regional banks and development agencies.

Development agencies and banks could become eligible for the issuance of Sustainable Development Bonds⁸² – a proposal for a long-term funding instrument that incorporates the concept of sustainability – once they meet the requirements of measures for the selection of reserves and/or guarantees suitable for the purpose of the operation. In this case, minimum requirements could be established in terms of governance aspects (structure, responsibilities, and decision-making authority), project and portfolio selection processes, risk control (due diligence of operations) and stakeholder communication policy.

Legislative follow-up

Regulation of Law 14.119/2021, which defines the Payment for Environmental Services (PES) instrument

⁸¹ However, the law lacks regulation in the sense that it is still necessary to clarify the origin of the resources that may comprise the National PES Program. Other sections vetoed in the PES Law must re-enter discussion as they do not allow the government to establish other tax incentives, such as credits with differentiated interest for activities to recover degraded areas and credit incentives for the sustainable management of biodiversity and other natural resources.

⁸² The Sustainable Development Bonds (LDS) is a proposed financial instrument for long-term funding, with appropriate capital and tax incentives and with a high potential of acceptance in the Brazilian and international markets. The proposal focuses on the development of a market that supports mainly the performance of the NDFS institutions. In particular, the vision is to integrate the concept of sustainability into the economic recovery. The LDS has its origins in a study by the IBD with ABDE's contribution. Available at: [Letra de Desenvolvimento Sustentável: um instrumento inovador para o setor financeiro e de apoio à atuação do Sistema Nacional de Fomento \(iadb.org\)](#)



6.ENGAGED AGRIBUSINESS

The climate change commitments made in SDG 13 depend, to a large extent, on transformations in the land use. A significant part of total greenhouse gas emissions results from deforestation and originates from the agricultural sector⁸³. Likewise, responsible consumption and production patterns are strongly associated with the rural environment and the value chains of agri-food systems (SDG 12).

Brazil is well positioned in the ranking of the world's largest producers and exporters of various commodities⁸⁴. However, the expansion of agriculture and livestock has significant costs in terms of deforestation, soil erosion and desertification, among others, compromising the biodiversity and increasing carbon emissions and other greenhouse gases associated with climate change. Agribusiness activities can affect the fulfillment of the SDGs associated to life on land (SDG 15) and health (SDG 3).

The agribusiness production process has a low potential for technological spillover and demand chaining on other sectors of the economy, including small-scale, family-owned agriculture with a vocation for sustainable crops, which play a fundamental role in promoting inclusion in the countryside. There is, therefore, an indirect impact of agribusiness on SDGs associated with greater inclusion in the countryside (SDGs 2, 5 and 10).

Other relevant factors for the design of this mission are: (i) the structural heterogeneity present in the countryside, represented by a significant difference in work and the level of salaries between agribusiness and family farming⁸⁵, which affects the SDGs related to decent work, economic growth and reduced inequalities; and (ii) the constant need to reduce inefficiencies and waste in the agribusiness value chain, demanding attention to technological and production issues and water use present in SDGs 9 and 6.

The mission Engaged Agribusiness contemplates the agribusiness value chain, including sectors of agriculture and livestock, processing industry, family farming, among others⁸⁶. These agri-food systems have a substantial impact on the production structure of the economy, on sustainability and on the quality of life of Brazilians – notably with regard to food security and the inclusion of vulnerable groups in rural areas. (Figure 4)

⁸³ Climate Observatory, 2021; PRODES.

⁸⁴ The Observatory of Economic Complexity, 2021.

⁸⁵ PINTO, 1972; REIS, CARDOSO, 2020.

⁸⁶ The agribusiness value chain, in general, ranges from business planning activities, technological R&D of production, mobilization of raw materials, fertilizers and machinery and equipment for planting and harvesting, transport and storage logistics, distribution and commercialization, as well as consumption and collection, selection and recycling activities.

Figure 4: Engaged agribusiness



Source: Own preparation. Adapted from Mazzucato (2018).

The projects of mission Engaged agribusiness, still in the conceptual phase, offer ways to fulfill the mission. They are:

- Expansion of sustainable patterns of production via innovative financing instruments
- Reduce costs and food waste in value chains
- Increase resilience and robustness in value chains to ensure food security focusing on family farming





(...) factors such as inflation, shortages, shortages cement and arousal of the unequalties compromised food security, whether in urban areas or rural.

a. Expansion of sustainable patterns of production via innovative financing instruments

Carrying out this project requires a new look at the financing of technologies and production techniques in the Brazilian agribusiness. It is necessary to invest in innovation and adaptation of financing instruments so that these techniques allow for a gain in productivity and sustainability. Investments would focus on transforming the agriculture and livestock and food production, as well as inputs that are harmful to human health and the environment.

To this end, it is essential that BCB's sustainability guidelines contained in Resolution 140/2021⁸⁷ are incorporated by the NDFS actors. It is worth noting that an update of BCB Resolution 2394/1976 to include sustainability criteria as conditionality⁸⁸ could expand the potential for development banks to act in rural credit operations.

Expanding the sustainable rural credit could stimulate the volume and ambition of projects linked to sustainable production patterns. Strengthening and expanding the ABC Program⁸⁹ would be essential to enable this action, given the minority volume of resources from the 2021/2022 Crop Plan intended for this program focused on low-carbon agriculture.⁹⁰

In the future, development agencies and banks could intermediate the financial execution of the Environmental Reserve Quota and offer credit lines.⁹¹ Another possibility would be to scale the Agribusiness Receivables Credit, an operation launched in 2021 to increase credit sources for rural producers.⁹²

As provided in the mission Ecosystem for the innovation in bioeconomy and for the Amazon, development agencies and banks could become eligible for the issuance of Sustainable Development Bonds.⁹³ Institutions such as credit unions could issue these bonds in order to expand their actions to support sustainable agribusiness.

⁸⁷ Some examples would be: (i) requiring management practices that reduce GHG emissions or fix carbon; and (ii) interrupting agricultural credit for companies, production units or municipalities with an expanding area of deforestation.

⁸⁸ It defines social, environmental and climate impediment criteria in the rural credit manual that would already be applied to the Safra Plan.

⁸⁹ The ABDE Program combines agricultural practices with the recovery of degraded pastures; crop-livestock-forest integration and agroforestry systems; direct planting in straw; biological nitrogen fixation; and planting commercial forests and treating animal waste.

⁹⁰ R\$5 billion out of a total of R\$251.2 billion expected for the 2021/2022 Crop Plan (Plano Safra)

⁹¹ The operationalization of this proposal depends on the STF's decision regarding the concept of ecological identity, which will define whether the market will be dealt with by biomes or otherwise more restrictive.

⁹² The operation had the BNDES as guarantor.

⁹³ See footnote 62.



Scaling up sustainable rural credit could stimulate the volume and ambition of projects linked to sustainable production patterns.

The work of the Alliance for the Financing of the Amazon could be leveraged through an articulation with the Amazon Bioeconomy Fund launched by the IDB in 2021 with resources from the Green Climate Fund (GCF). Since there is a perception that business in bioeconomy poses a high risk for some investors, funds approved by the GCF as loans, donations and shares for the Amazon Bioeconomy Fund could contribute to reducing the risk of private investment. Another interesting instrument for carrying out this project would be the creation of the voluntary carbon market and green finance.

The creation of Sustainable Development Bonds could expand the possibilities of financing the bioeconomy in the Amazon and other biomes.

b. Reduced costs and food waste in value chains

The disruption of global value chains was one of the most visible effects of the Covid-19 pandemic, especially in the food chain. As a result, factors such as inflation, scarcity, shortages and worsening inequalities have compromised food security, whether in urban or rural areas. In this sense, there is an urgent need for strategic initiatives aimed at increasing resilience to systemic shocks in the agri-food system chains, as well as making them more robust and sophisticated.⁹⁴

Family farming directly contributes to the fulfillment of SDGs 2 and 12, aimed at eliminating hunger and food insecurity, as well as leveraging sustainable consumption and production patterns. Considering its importance also for the food supply in the country⁹⁵ and its role within the value chain of agri-food products, this project suggests incentives for the resilience, robustness and sophistication of the chains, as well as for reducing food losses through three core strategies: (i) strengthening of the value chains of family farming; (ii) modernization of production with machinery and equipment, as well as logistics, storage, distribution and marketing infrastructure; (iii) reforestation. Each of the strategies, relevant NDFS actors, examples of replicable initiatives and international benchmarks are described in the following paragraphs.

⁹⁴ MIROUDOT, 2021; REIS, CARDOSO, 2020.

⁹⁵ IBGE data from 2019 show that family farming establishments were responsible for 23% of the value of national production. In 2017, the segment had 10.1 million employed persons, corresponding to 67% of the total employed in the Brazilian agricultural sector.

For this, federal banks (notably Banco do Brasil, Caixa Econômica, and BNDES), regional and cooperative banks, in addition to subnational DFIs (mainly BRB, Badesul, Goiás Fomento, Fomento Paraná and Badesc), can act in the expansion of assisted credit (such as differentiated interest rates), guarantees and risk management for family farming, more specifically through a few fronts: (i) the expansion of conditions for rural credit with sustainability conditionalities such as Pronaf Bioeconomia, Pronaf Florestas and ABC+, especially in the Cerrado and Amazon biomes; (ii) the creation of incentives for the financing and implementation of certifications; and (iii) the inclusion of socioenvironmental criteria with traceability of origin.

The cooperation between NDFS actors and technical assistance institutions such as Sebrae, Emater, Senar, Senai and NGOs could facilitate the adoption of models that meet the necessary requirements for family farming, as well as for the construction of innovation poles focused on regional development. To this end, blended finance and guarantee instruments for projects mobilizing new investments in the production chain, adding value and reducing costs could also be encouraged.

This project seeks to improve transport and storage infrastructure combined with the promotion of the circular economy (SDG 12), water and waste management (SDG 6), thus helping to reduce the difference between the price of food paid to the producer and the final product. The potential contributions of the NDFS to this agenda, in particular BNDES and regional banks, include the provision of specific lines of credit, also using blended finance models, for 3R⁹⁶ projects of companies in the circular economy of the agribusiness, aiming at saving resources and reducing food losses and waste in the transport, storage, distribution and commercialization stages.

In order to improve the transport, logistics and storage infrastructure, the BNDES's Program for the Construction and Expansion of Warehouses could be improved and expanded via the Crop Plan and partner banks, such as Banco do Brasil, BRDE and BDMG, considering the growth in demand for investments in recent years and its strategic nature for this project.

⁹⁶ As a way of promoting the reduction or non-generation of waste, it is presented the principle of the 3 R's: reduce, reuse and recycle. These actions, together with the adoption of sustainable consumption patterns, have been promoted as a way to protect natural resources and minimize waste.

As a reforestation strategy, development agencies could support the development of green settlements (agroforestry), aiming at later becoming carbon negative and entering into the process of issuing green bonds. Another possibility would be to direct resources from the National Fund for Scientific and Technological Development (Fundo Nacional de Desenvolvimento Científico e Tecnológico, FNDCT) to family organic farming and the bioeconomy that contribute to the neutralization of emissions.

Alternatively, it would be possible to capitalize the revolving funds from resources of producers who access Pronaf B and receive a bonus. One option would be to “donate” part of the bonus to the revolving instrument to extend its reach. The resources of the revolving fund could constitute a kind of “solidarity endorsement” for Pronaf operations associated with family production.

c. Increase resilience and robustness in value chains to ensure food security focusing on family farming

To increase resilience and robustness in value chains aimed at food security with a focus on family farming and the bioeconomy, the NDFS could expand and leverage credit incentives – such as differ-



entiated interest rates – for activities linked to the bioeconomy and/or family farming. This credit incentive would operate on two fronts: (i) the expansion of rural credit with sustainability conditionalities, such as Pronaf Bioeconomia, Pronaf Florestas and ABC+; and (ii) the creation of incentives for the financing and implementation of certifications and inclusion of socioenvironmental criteria with traceability of origin.

The NDFS could support the development of green settlements (agroforestry) aiming at later making them carbon negative and thus being part of a process of issuing green bonds. Another possibility would be to direct resources from the National Fund for Scientific and Technological Development (FNDCT) to bioeconomy activities and to the neutralization of greenhouse gas emissions.⁹⁷ The Finep Amazônia digital transformation program already uses FNDCT resources for this purpose, providing an opportunity for this experience to be replicated by other institutions in the system. Moreover, federal and regional banks could provide risk capital in bioeconomy production chains.

The system can support innovative models for production chains, as well as for adding value and to the infrastructure in the Amazon region via blended finance. Furthermore, cooperation between NDFS actors and technical assistance institutions would be important to adapt financing products to meet the necessary requirements of the bioeconomy.⁹⁸

Another strategy would be to capitalize revolving funds from resources of producers who access Pronaf B and receive a bonus. One option would be to “donate” part of the bonus to the revolving instrument to extend its reach. The resources of the revolving fund could constitute a kind of “solidarity endorsement” for Pronaf operations. This experience has already been tested in other chains and could be replicated among sociobiodiversity product funds.

⁹⁷ The Supplementary Law 177/2021 amended some articles of Law 11.540/2007, such as the delimitation of expenditure not subject to contingencies. It also modified the use of resources to support ST&I programs, projects and activities aimed at neutralizing Brazil’s greenhouse gas emissions, and promoting the development of the bioeconomy sector.

⁹⁸ One example is Conexsus’ work with the Conexsus Socioenvironmental Fund and the creation of networks of credit enablers for mentoring and supervising processes of access to credit, gathering producers and financial institutions.



7. INFRASTRUCTURE AND SUSTAINABLE CITIES

In Brazil, approximately 76% of the population lives in urban centers and 70% of the national GDP is generated in cities with more than 100 thousand inhabitants⁹⁹. It is possible to state that the success of the 2030 Agenda in the country goes through a transformation of Brazilian cities towards the reduction of regional inequalities and the promotion of an inclusive, low-carbon urbanization.

The potential that the transformation of cities has to accelerate the fulfillment of the 2030 Agenda is a reflection of several factors, including the high multiplier effect of SDGs related to access to water, sanitation and infrastructure, with direct impact on many other SDGs, such as SDG 6 and SDG 9; the contribution of efficient urban mobility networks for people, goods and materials to boost sustainable socioeconomic development by connecting citizens to basic services, jobs, markets and each other, among others.

The infrastructure gap in Brazilian cities is a historical problem that responds directly to the urban population growth in the country. The infrastructure of cities does not seem to develop at the same speed as people migrate from rural to urban areas. The scenario becomes even more challenging in face of the difficulty of financing projects related to urban infrastructure. They are deemed high risk and receive less investment because they are permeated by externalities and generate collective economic benefits that are not included in the income of the service providers.

The high degree of heterogeneity of Brazilian municipalities, notably regarding institutional capacity, represents another relevant variable in this equation. Municipalities with low technical capacity for structuring projects or formulating public policies are not able to position themselves well in the coordination of public programs for infrastructure investments, or even in the integration between the federal, state and municipal levels of public administration. Institutional capacity determines the potential of a municipality to plan, finance, implement and monitor policies and projects, which is even more sensitive in cases of investments to the social and urban infrastructure.

The Sustainable Cities and Infrastructure mission is born with the goal of reducing regional inequalities through inclusive and sustainable urbanization. It is necessary to find alternatives for the financing of more resilient and inclusive cities. The different dimensions of the concept of sustainable cities - ranging from connectivity technologies to public facilities (daycare centers, parks, public lighting) - require innovative solutions in terms of financing (Figure 5).

⁹⁹ IBGE, 2015.

The NDFS plays a central role in financing cities, accounting for approximately 98% of the credit to Brazilian municipalities, making it a natural candidate to act as leader of this mission. Nevertheless, the participation of the NDFS in this agenda needs to be calibrated according to the heterogeneity of the institutions within the system, whether in terms of institutional capacity, available resources, or limits to action.

Figure 5: Sustainable cities and infrastructure



Source: Own preparation. Adapted from Mazzucato (2018).

The projects of mission Sustainable cities and infrastructure, still in the conceptual phase, offer ways to fulfill the mission. They are:

- Diversification and development of sources of renewable energy and energy efficiency
- Expansion of access to water and waste management
- Inclusive urban mobility



a. Diversification and development of sources of renewable energy and energy efficiency

Today, cities consume more than 2/3 of the world's energy and account for more than 70% of global greenhouse gas emissions. In Brazil, energy is the second most expensive item in municipal budgets, second only to payroll¹⁰⁰. Moreover, competitive sectors such as industry depend on energy efficiency in their production processes. In parallel, the diversification of renewable energy sources is essential for the achievement of energy security (SDG 9) and for the transition to a low-carbon economy (SDG 13).

In order to diversify renewable energy sources and increase energy efficiency, the NDFS can act in the promotion of equipment sectors and activities related to energy generation and transmission, infrastructure works and biofuel manufacturing through: (i) greater alignment with sectoral strategies; (ii) expansion of funding sources via international funds and guarantors; (iii) subsidy, technical assistance and credit for the development of new technologies; (iv) development of the carbon market; and (v) guarantees.

¹⁰⁰ IDB, 2021.

Regarding regulatory and institutional frameworks, NDFS's performance for the diversification of renewable energy sources and support for energy efficiency could be aligned with the federal government's 2030 National Energy Plan, which articulates and integrates strategies for sustainable and economic energy expansion for subsequent years. As a possibility to expand projects in the renewable sources sector, it is highlighted the promotion of the construction of hybrid parks. To enable its performance in this sector, the NDFS could articulate the regulation of this type of project with the National Electric Energy Agency (Aneel, in Portuguese). Thus, new business models in the segment would be stimulated. State commercial banks and development agencies could finance or use grants¹⁰¹ for consulting and advisory services in supporting the preparation of municipal energy infrastructure plans. In this sense, municipal consortiums could be structured to access this type of program.

As a possibility to expand funding sources, share experiences and best practices, build relationships and, thus, contribute to the expansion of renewable energy projects, partnerships with international institutions such as the AFD, the IDB, the KfW and JICA are highlighted. These institutions contribute to manage or operate funds, such as the Latin America Investment Facility and the Clean Technology Fund, that support the structuring of projects, the evaluation of social and environmental impacts, the development of supply and demand and the education and training for renewable energy projects.

Moreover, development agencies in the Northeast region could act in coordination with the BNB to access resources from Northeast Development Fund (Fundo de Desenvolvimento do Nordeste, FDNE) to carry out renewable energy projects in the region. Such an initiative would stagger resources and contribute to the decentralization of initiatives in the sector. Additionally, the same articulation model could be used with BNDES to use the Climate Fund to the Renewable Energy program.

¹⁰¹ It is worth noting that international resources such as grants could be used to make this performance by banks and development agencies feasible.



Development agencies and state commercial banks could be protagonists in carrying out these actions, given their capillarity and proximity to subnational actors.

Another strategy for the diversification of renewable energy sources and support for energy efficiency would be the use of economic and non-refundable subsidies, with the allocation of resources so that ISTs and companies carry out, in partnership, R&D activities in projects for the generation of new biofuels, energy efficiency gains and better use of waste. In addition, resources from subsidies could be used for companies to develop these technologies directly.

Finep, through the Rota 2030 - Mobility and Logistics program, could support projects aimed at energy efficiency in the automotive sector. The BNDES, with its Funtec program, could provide non-refundable resources for R&D projects developed in partnership by ISTs and companies, focusing on these areas. In this sense, the BNDES and Finep could strengthen the coordination of their financial instruments with a view to contributing to scale local initiatives. Furthermore, they could form partnerships with subnational institutions so that they support MSME projects benefiting from subsidy and non-refundable resources.

The NDFS could also provide technical assistance for the structuring of projects, including PPPs, for wind farm projects and energy infrastructure. In this sense, development banks could act jointly with state commercial banks and development agencies, taking advantage of the capillarity of the system, to mitigate risks and increase the pool of bankable projects. In addition, the NDFS could expand and strengthen technical and financial support to municipalities in the structuring of building, public lighting, and distributed electricity generation projects. Development agencies and state commercial banks could be protagonists in carrying out these actions, given their capillarity and proximity to subnational actors.

It is worth noting the BNDES's participation in the structuring of PPP projects for public lighting, articulating the public sector, new investors, and qualified operators. Initiatives similar to the online training platform Enerflix¹⁰² could be developed in Brazil with the participation of NDFS institutions, in order to help Brazilian municipalities increase efficiency in energy consumption. In addition to replicating experiences of credit lines to promote urban infrastructure, the

¹⁰² This refers to a partnership between the IDB, the iX-FUPAI-FAPEPE consortium and the Japanese Special Fund to create a platform that offers free online training for the development of energy efficiency and distributed generation projects, helping Brazilian municipalities in saving energy.

NDFS could also group projects and package them in order to make them more attractive to the domestic and inter-national market.

It is worth noting the importance of training in energy efficiency for micro and small-sized enterprises. Sebrae works on this issue by offering training to minimize costs for MSMEs and promote emission reductions. Thus, Sebrae, in partnership with development agencies and credit unions, could advance the technical assistance in energy efficiency agenda for MSMEs. Furthermore, the NDFS's role in promoting sustainability by working with municipalities in urban energy efficiency projects should involve building partnerships in order to exchange experiences, to leverage resources and expand urban infrastructure projects in coordination with initiatives developed by institutions such as ICLEI, enhancing the results of supported projects.

Credit instruments for the segment need to be designed to mitigate project risks. In this sense, it is worth highlighting the financing line of Fomento Paraná, aimed at micro and small-sized enterprises, for the purchase of energy generation equipment from renewable sources or for the replacement of lamps and equivalent equipment to improve energy efficiency. Similar actions could be developed to encourage the purchase and installation of micro and mini photovoltaic, wind or biomass electric energy generation systems.

In parallel, special lines could be created to stimulate the financing of distributed microgeneration and minigeneration. The BNB's "FNE Sol" for distributed mini and microgeneration of electricity, for example, could be used by different sized enterprises and sectorial performance, as well as by individuals. Another experience is Banco do Brasil's credit line, with resources from the FCO, for the acquisition and installation of photovoltaic panels in homes. In addition to replicating these experiences of credit lines, the NDFS could also group projects together in order to make them more attractive to the domestic and international market.

A discussion within this theme is the NDFS's role in the carbon market, which involves the discussion on the regulation of this market in Brazil (PL 528/2021).¹⁰³ A possible alternative would be the cre-

¹⁰³ The PMR (Partnership for Market Readiness) Brazil Project, coordinated by the Ministry of Economy and the World Bank, assessed the inclusion of emissions pricing (via tax and/or carbon market) in the package of instruments aimed at implementing the National Policy on Climate Change post-2020.

ation of a voluntary market and, in a next step, its progression to the regulated market. The first BNDES's operation in the voluntary carbon market, scheduled for 2022, may contribute to advance this instrument. In addition, the NDFS could create financing lines for the purchase of carbon credits and funds, in order to foster the development of the national carbon market, as well as promote the creation of consortia, with a view to reducing the cost of small and medium investors and stimulate their entry into the market.

An alternative path would be the creation of a compulsory Brazilian Emissions Trading System (SBCE), gradually implemented with mechanisms to protect competitiveness and price stability. This path seeks to increase the scale to meet environmental targets and, at the same time, ensure competitiveness in the transition to a green economy.

Collateral products would help mitigate the cost of credit and banking system requirements. An example to be monitored is the Credit Guarantee Program for Energy Efficiency – FGEnergia, scheduled to be launched in February 2022. The program's target audience is MSMEs that seek funding to implement energy efficiency actions, contributing to the reduction of emissions and increased productivity and competitiveness. The program can be applied to cover BNDES onlending lines or lines owned by the accredited banking partner, not consuming the limit of the partner bank at the institution. With FGEnergia, banks will be able to allow for greater flexibility or even waive the requirements for security interests from small and medium-sized customers in financing aimed at energy efficiency actions.

Another instrument that development institutions could promote would be the creation of energy efficiency indexes or the implementation of a maximum consumption, including to prioritize financing and direct demand.

On the topic of biofuels, the NDFS could promote research and technological development in the area, support the inclusion of biofuels as green assets before the World Trade Organization, and work together with cooperatives to advance the National Program for the Production and Use of Biodiesel (especially as complement to the mission ecosystem for the innovation in bioeconomy and for the Amazon).

Legislative follow-up

PL3368/20 – determines that, as of 2030, cars and light utility vehicles manufactured in Brazil or imported will use exclusively bio-fuel, such as ethanol.

National Hydrogen Program – advances in the development of the hydrogen market in Brazil and its inclusion as one of the priority topics for investments in research and innovation.

b. Expansion of access to water and waste management

The new legal framework for basic sanitation changed provisions of seven laws that regulated the sector in the country and established the target of 99% coverage of the population with access to the water network, and of 90% sewage coverage by 2033, signaling an important transition in the institutional sanitation arrangement in Brazil. In terms of financing, the performance of the NDFS institutions, both in financing and in structuring projects, can contribute to increase the volume of private resources and unlock investments in the sector. We highlight the NDFS's capacity to be the driving force behind investments in water and sanitation due to its local expertise and strong performance with municipal and state governments.

A possible alternative to enhance NDFS's role in this agenda would be through the financing of a consortium of municipalities and regionalized partnerships. An example that can be replicated and expanded is the Municipalities BRDE Program, in which the bank works directly in local development, enabling municipal administration projects – notably in sanitation and urban mobility¹⁰⁴.

¹⁰⁴ Between 2016 and 2020, R\$827.1 million were disbursed, benefiting 136 municipalities in the South Region, which correspond to the population of 7.16 million people. Of this total of supported municipalities, 79% have a population of up to 50 thousand people, showing the importance of the program for small municipalities.

It is important that the system expands its participation in public-private partnerships for sustainable infrastructure projects, especially by training subnational development institutions so that they can enhance their performance in urban infrastructure initiatives. Stimulating training and technical assistance in structuring projects for DFIs is fundamental, especially in view of the high participation of the NDFS in financing municipalities and the limitations faced by them in structuring projects.

Another line of action would be to adapt the financial products of the DFIs, directing them to infrastructure projects aiming at establishing grace and amortization periods compatible with the cash flows and life cycle of this type of project. One way to increase the participation of DFIs in this agenda would be through the structuring of guarantee funds for states and municipalities to finance sustainable infrastructure projects.

c. Inclusive urban mobility

Urban mobility – with its associated goods and services – is of strategic importance in the sustainable cities and infrastructure agenda. It is characterized by the generation of network economies and positive externalities such as social inclusion, improvement in the population's quality of life, and direct or indirect reduction of pollutant emissions.

The NDFS can provide technical and financial support to municipalities in the preparation of multi-annual transport plans and investments in sustainable urban mobility. Guided by the National Urban Mobility Policy, local urban mobility policies can combine instruments to promote accessibility aimed at reducing energy consumption, local and greenhouse gas emissions. NDFS institutions could

access the Climate Fund to finance urban mobility projects aimed at reducing emissions. This would, therefore, make it possible to stagger direct and indirect operations of the Climate Fund. BRDE's experience in operating the Climate Fund with BNDES resources, for example, could be replicated for other DFIs¹⁰⁵. Moreover, it would be interesting to articulate institutions of different sizes of the NDFS with a view of sharing experiences and deepening knowledge and training in structuring projects for urban mobility.

Concerning the regulatory frameworks for the social and urban infrastructure, the NDFS could sensitize public managers about the possibility of preparing normative instructions, laws and decrees in order to connect public purchases with sustainability indicators and encouraging low-emission mobility programs. One example is the purchase of school buses by the Ministry of Education. This demand could stimulate the production of electric vehicles, powered by biofuels or hybrids, if there were any conditionality linked to sustainability. In the case of small municipalities, an alternative could be incorporating consortia for public purchases.

Finally, regarding coordination, medium-sized institutions of the NDFS, state commercial banks and development agencies could form partnerships to deepen experiences and advance in the structuring of social and urban infrastructure projects, as well as in the standardization of contracts, reducing administrative cost by sharing best practices.

¹⁰⁵ By having lower rates than those practiced in the market, Climate Fund (Fundo Clima, in Portuguese) contributes to reducing the cost of capital of mobility investments for investors.



8. HEALTH AS A DRIVING FORCE FOR DEVELOPMENT

The Unified Health System (SUS) was established under the assumptions of universality and integrality of access¹⁰⁶, being currently the only guarantee of health services for $\frac{3}{4}$ of the Brazilian population.



The sustainability of health systems has been a constant concern of governments and society, mainly due to the sharp growth in costs as a result of the technological advancements.

The national demand in health accounts for approximately 9% of the Brazilian GDP, 10% of skilled workers, 30% of the national R&D effort and the platforms of critical technologies for the future. The sustainability of health systems has been a constant concern of governments and society, mainly due to the sharp increase in costs as a result of technological advances.

It is in this context that the concept of the Health Economic-Industrial Complex (CEIS) was developed¹⁰⁷, in which healthcare sectors are all interconnected, and the realization of social rights takes place with the development of a productive, technological and innovation base that works as its foundation, thus establishing an endogenous relationship between the social and economic dimensions of development. Production in this sector converges into the highly articulated productive space for the provision of health services, involving primary care, diagnosis and treatment, outpatient and hospital services, which conditions the entire competitive and technological dynamics of this sector.

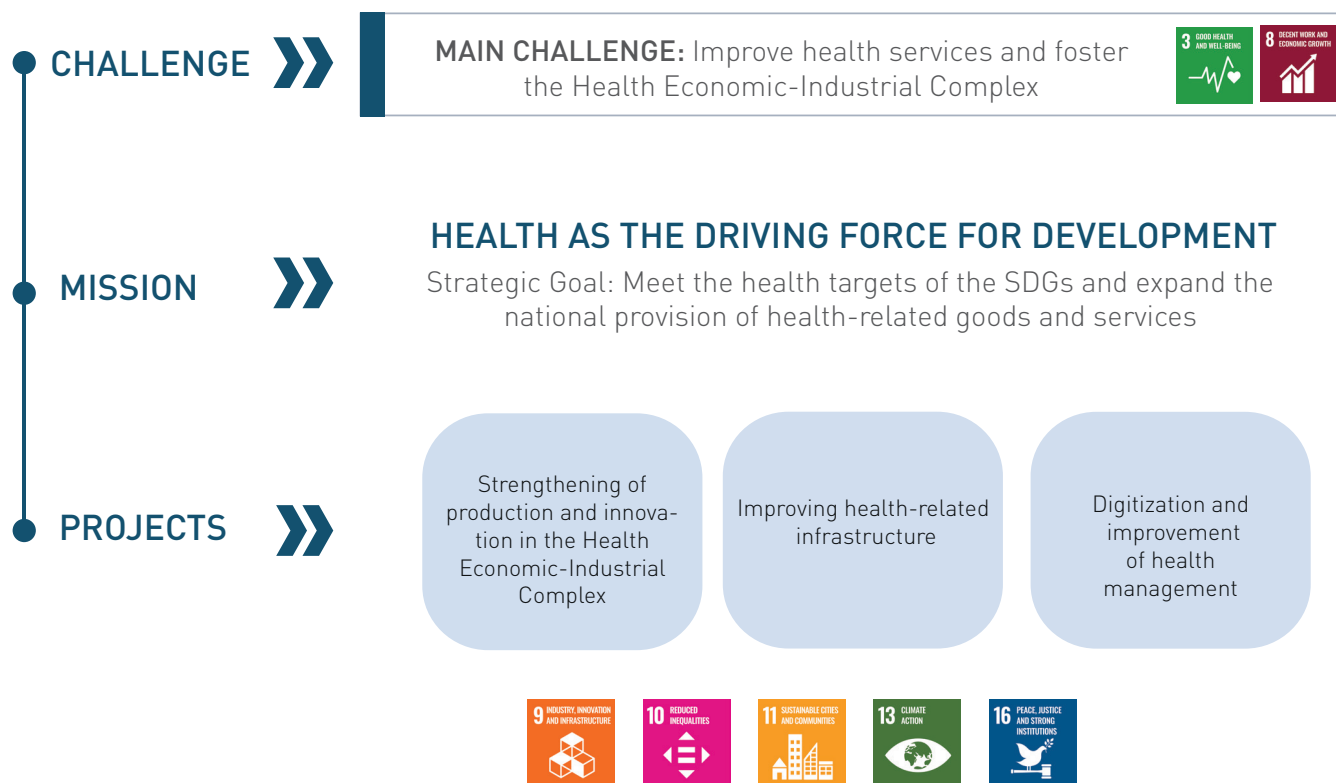
It is essential to strengthen health information and surveillance systems through the digitization of the area, preventive actions, and support for the improvement of health management. In addition to contributing to the rationalization of expenses in the sector, since it reduces the number of highly complex procedures that burden the public budget, this approach is a fundamental contribution to reducing inequalities in healthcare, improving the quality of services provided, the expansion of infrastructure, and the adequate repositioning of health equipment in the territory.

The mission Health as the driving force for development aims at strengthening the demand and supply of healthcare in Brazil. The challenge is to expand and improve health services while investing in strengthening the Health Economic-Industrial Complex (CEIS). The improvement of health services requires the use of more and better equipment, qualified personnel, hospital materials, and specialized services. Investments in the health industrial complex – including pharmaceutical and pharmachemical sectors, equipment and diverse machinery – can therefore contribute to accelerate the economic growth (Figure 6).

¹⁰⁶ The Art. 196 of the Federal Constitution establishes that “Health is the right of everyone and a responsibility of the State, guaranteed through social and economic policies aimed at reducing the risk of disease and other aggravations and at universal and equal access to actions and services for its promotion, protection and recovery”.

¹⁰⁷ GADELHA, C. O complexo industrial da saúde e a necessidade de um enfoque dinâmico na economia da saúde. *Ciência e saúde coletiva*, Rio de Janeiro, v. 8, n. 2, p. 521-535, 2003.

Figure 6: Health as the driving force of development



Source: Own preparation. Adapted from Mazzucato (2018)

The projects of mission health as the driving force for development, still in the conceptual phase, offer ways to fulfill the mission. They are:

- Strengthening of production and innovation in the Health Economic-Industrial Complex
- Improving health-related infrastructure
- Digitization and improvement of health management

a. Strengthening of production and innovation in the Health Economic-Industrial Complex (CEIS)

The development of the Health Economic-Industrial Complex (CEIS) and its associated sectors presents an enormous potential for generating high quality work, contributing to the strengthening of production and the increase in productivity. In parallel, it would lead to an increase in innovation and economic complexity in Brazil, contributing to the reduction of per capita emissions of greenhouse gases and income inequality.

CEIS comprises sectors of high economic complexity, such as the production of drugs and specialized medical equipment (such as respirators, which gained notoriety during the Covid-19 pandemic). These sectors have a high potential for generating quality work (SDG 8) and are also highly related to scientific research and technological innovation (SDG 9). Additionally, as they are highly complex sectors, they also emit less greenhouse gases¹⁰⁸ (SDG 13). The health complex also moves sectors with less technological intensity, related to the production of personal protective equipment (PPE), among other inputs. In this sense, the NDFS could foster the demand for goods from these sectors, contributing to generate new jobs, even if less specialized, promoting an increase in formal employment and supporting the reduction of income inequality (SDG 10).

Federal banks and Finep have a strategic role in providing credit lines to strengthen the CEIS and expand local health services. Development agencies and Sebrae would complement this network with credit and training for companies of the CEIS. In partnership with regional development banks, Sebrae could also support innovation for the development of health technologies. Together, these institutions would work to: (i) expand the financing of R&D projects; (ii) expand credit for companies of the CEIS; (iii) promote training and management of companies within the complex; and (iv) develop partnerships with institutions already working in the healthcare sector. Each of the strategies, relevant NDFS actors, examples of replicable initiatives and international benchmarks are described in the following paragraphs.

The NDFS plays a relevant role in this agenda, acting in technologies and R&D financing in health sectors (within the broad concept of CEIS). This type of financing favors high-complexity industries, qualifying the supply of health products and generating a relevant promising impact on the levels and quality of work and national production. The investment in new technologies brings Brazil closer to other countries, generating the opportunities to attract investment from abroad and a more qualified participation in Global Value Chains.

An important scope of the NDFS's activities would be the development, innovation and public procurement in health. Ensuring demand is critical to the development of health products, especially in

¹⁰⁸ ROMERO; GRAMKOW, 2021.

view of the high R&D investment associated with the development of new drugs, healthcare devices, among others. Public procurement of SUS is significant for the healthcare demand in Brazil. Therefore, the integration between the actions of the different actors that make up the NDFS is essential for a more resilient and innovative health sector.

In order to illustrate said NDFS's coordination potential, it is possible to think of an alignment between the public procurement of SUS and Finep's economic subsidy for the development of higher risk technologies and, in a second moment, BNDES'S credit for the production of such technology. This combination of actors and instruments could further enable the growth of the sector in Brazil, contributing to increasing the capillarity of these actions.

Development agencies could also create or expand credit lines aimed at companies in the Health Economic-Industrial Complex. Badesul and Badesc already have credit lines for the health sector. They are, therefore, instruments that can be improved and adopted by other NDFS institutions, enhancing the assertive performance of the system in strategic sectors of the health complex. Another possibility for the NDFS to support the CEIS would be the creation of a credit guarantee fund aimed exclusively at companies in the sectors that make up the complex. Different criteria could be established while taking into consideration the level of complexity of the sector and/or the intensity of the research and development involved in the process.

Regarding the expansion of credit for companies in the health industrial complex, credit lines could be the focus for the modernization of management via the adoption of ICT solutions. In this line, Sebrae could play a key role in promoting management and training improvements for companies in the health complex. As an example, Sebrae, through the Health and welfare Sector Project in Amapá, has supported micro and small-sized enterprises in the health and welfare segment (medical services, medical and dental clinics, clinical analysis laboratories, speech therapy and physiotherapy clinics, aesthetics, nutrition clinics, pharmacies and gyms) in management, production, design and marketing.

Finally, regarding developing partnerships with institutions that are already active in the health sector, the mission of implementing health as the driving force for development requires a network of partnerships with multilateral development agencies, such as the IDB, which has experience both in the design and evaluation as well as in the implementation of programs for improving local health management and public and private health equipment in the country. The success of a project that seeks to strengthen the CEIS in Brazil also depends on a greater interconnection between programs, instruments and technological supply and demand so that resources are invested in activities with greater potential for generating productive spillovers, work and economic growth.

Partnerships with health research institutions in the country, especially Fiocruz, in addition to other foundations¹⁰⁹ and public universities, would be essential for the design of specific programs focused on the development of health products in Brazil. Moreover, cooperation with public universities and federal technical centers would be important for the design of technical and higher education training strategies and programs aligned with the mission¹¹⁰.

It is worth noting that the use of the State's purchasing power combined with a policy to strengthen the Health Economic-Industrial Complex could have a significant impact on public and private investments in those sectors, contributing to the internalization of technology and reducing the Brazilian health sector's external dependence¹¹¹ – a trend that have worsened with the Covid-19 pandemic. Public policy initiatives, such as Partnerships for Productive Development (PDPs), programs for Technological Orders in Health - ETECS and Strategic Procurement, in addition to the Program for the Development of the Health Industrial Complex (PROCIS), are examples of the use of the purchasing power of the State, ensuring future demand and strengthening production and innovation. An improvement on the use of the government's purchasing power could be the inclusion of conditionalities related to sustainability. The importance of SUS's

¹⁰⁹ Instituto Butantan, Fundação Ezequiel Dias, among other state and municipal research foundations.

¹¹⁰ The Agency for the Development of Primary Health Care (Agência de Desenvolvimento da Atenção Primária à Saúde) (Adaps), which operates nationwide on several fronts (from the organization of primary care services under the SUS to actions for the implementation of care and management technologies), can be an important actor in providing resources to strengthen the health economic-industrial complex in the country and, along these lines, a potential partner for the NDFS institutions.

¹¹¹ In 2021, the country set an all-time record on dependence on imports in the Health Complex, reaching US\$ 20 billion. Source: CEE, Fiocruz.

demand makes it have a significant impact on the strategic decisions of companies in the sector, and can be used to stimulate new, more sustainable forms of production.

The NDFS could use economic subsidy resources, non-refundable resources and equity for the interaction between companies and ISTs, with modulation based on technological risk, allocating subsidy and non-refundable resources to higher risk projects. The same company could receive resources from different modalities in different phases of the project. Furthermore, several NDFS institutions would have the capacity to manage innovation hubs focused on the development of health technologies. In turn, Finep could provide economic subsidies and non-refundable resources for health products in early stages of development that are able to meet the SUS's demand, especially products that over-burden the health budget in Brazil, such as biological medicines.

a. Improving health-related infrastructure

The expansion of basic health infrastructure and the improvement of the medium/high-complexity healthcare network is essential to guarantee the integrality and universality of the health system, directly contributing to reduce inequality, in order to make cities and communities more inclusive and to generate work. Financing for the construction, expansion and restructuring of health equipment – including hospitals and basic healthcare units – also works as a stimulus to the demand for CEIS activities, favoring, in particular, sectors of a higher economic complexity.

Like the IDB's financing lines for the health sector, the NDFS could develop more complex and comprehensive products to finance the expansion and requalification of the country's health equipment through loans to states and municipalities. This would be an essential contribution by the NDFS to Brazil's development, given the impact of investment in health-related infrastructure on the expansion of the system, on the demand for the CEIS sectors, and on the achievement of SUS universality goals.

Cases of NDFS performance

BNDES – It has financing lines for modernizing local health networks and for expanding and/or modernizing the physical structure of philanthropic non-profit health institutions that participate in a complementary manner together with SUS, aiming at increasing the capacity of provision of care and/or improving the quality of health services.

BDMG – Acted in projects to finance health infrastructure and biotechnology focused on the production of drugs.

The system could use resources from constitutional and regional development funds (FCO, FNO and FNE) to expand health services in these regions, aiming at reducing regional inequalities or at promoting the modernization of financing lines for the public administration (PPP and PPI) of health infrastructure, with resources from the BNDES and FEP-Caixa. It is worth noting that the possibilities shown involve the mobilization of resources with long grace periods and a long-term return on investment, directly affecting the feasibility of the proposals.

b. Digitization and improvement of health management

Actions to improve health management, digitize services and strengthen networks – especially through the use of information and communication technologies – contribute to the achievement of health targets (SDG 3), as well as to the development of the health economic-industrial complex (SDG 9) and its associated sectors, and to the improvement of public expenditure (SDG 16).

In recent evaluations of its social financing strategy in Brazil, the IDB has highlighted the following needs of the country: (i) the priority of reorganizing services into integrated networks with a focus on strengthening primary health care, increasing the effectiveness of prevention and treatment in a context of fiscal austerity; (ii) the importance of patient care follow-up tools, especially the electronic medical record, in order to reduce overlapping and efficiently regulate access to medium and high-complexity services; and (iii) the importance of introducing recognized mechanisms to improve the quality and cost-effectiveness of the service.

The NDFS could finance programs to digitize and improve health management and information systems by disbursing resources from the FNDCT for digital innovation in the health sector. Alternatively, it could finance a connectivity infrastructure (including 5G) for small and medium-sized enterprises who provide health services, in cities, in the countryside and in remote access areas.

Cases of NDFS performance

BNDES – It has financing programs for the implementation of technological solutions for an integrated health care management, as well as the procurement of IT equipment aimed at modernizing local healthcare networks.

Banco do Brasil – It has financing programs aimed at strengthening the SUS. The municipal efficiency program, for example, supports projects for the improvement of health management¹¹².

¹¹² Caixa Econômica Federal has similar programs.



9. STRENGTHENING OF THE NATIONAL DEVELOPMENT SYSTEM

In order to identify the main actions and proposals for strengthening the NDFS, the ABDE Plan took into consideration the mapping, presented in the previous section, of the system's initiatives that are aligned with the SDGs and/or that can be strengthened in order to enhance their contribution to the sustainable transition.

These missions open a window of opportunity for a transformative contribution by the NDFS in areas that are essential to sustainable development in Brazil. Nevertheless, the challenges to be faced by the DFIs on this journey are also substantial. It is, therefore, in this context that the ABDE 2030 Plan establishes a set of proposals for strengthening the NDFS – including actions that are internal and external to each DFI – aiming at helping institutions address challenges that affect the ability to exercise their potentialities, limiting the catalyst role that the NDFS may play in financing sustainable development in the country.

In order to identify the main actions and proposals for strengthening the NDFS, the ABDE Plan took into consideration the mapping, presented in the previous section, of the system's initiatives that are aligned with the SDGs and/or that can be strengthened in order to enhance their contribution to the sustainable transition. In addition, the practice benefited from the contribution of experts from the NDFS and other national and international partner institutions with a strong connection with the NDFS and with the proposed missions to advance the 2030 Agenda in Brazil.¹¹³

¹¹³ It is worth noting that the proposals for strengthening the NDFS were also developed based on the results of ABDE's continuous work with the federal and subnational government, regulatory and supervisory agencies, international organizations, among others, based on the NDFS's needs and the demands of its affiliates.



The following sections are divided into six themes to describe the set of actions and proposals for the strengthening of the NDFS. They are: (i) dissemination of the NDFS's role; (ii) internalization of the SDGs in the NDFS's institutional and regulatory frameworks; (iii) articulation with strategic actors; (iv) adaptation of the institutional and regulatory framework of the DFIs; (v) funding sources; (vi) strengthening the use of blended finance, guarantees and innovative instruments.

i. Dissemination of the role of the National Development System

One of the starting points in the transition to a more sustainable, inclusive, and innovative development model, which contemplates long-term structuring public policies, is the recognition of the relevance of public financing mechanisms for sustaining and making investments. The NDFS's role in the main historical transformations of the social, economic and technological structures reiterates its capacity to act as an instrument for the implementation of public policies and for the financing of the sustainability agenda. Therefore, transparency and dissemination of actions are crucial to justify the performance of development institutions and to strengthen their internal and external structures, in order to carry out the series of investments expected for this agenda.

In this context, it is important to intensify the transparency and accountability of the NDFS's contribution to the development and fulfillment of the SDGs in Brazil. Communication is favored by the disclosure of data from the institutions and the exchange of experiences between agents, since, having the results obtained by these institutions, it can be thus identified progresses in the agenda and potential challenges to be faced. To this end, it is necessary to strengthen the monitoring of actions and ex-ante and ex-post evaluations of the financing policies of these institutions, with the development of methodologies for measuring intermediate and final results, so that the entire credit process is monitored until it reaches its goals, thus allowing the disclosure, dissemination and accountability of the results to society.

To this end, NDFS institutions must invest in the development, improvement and implementation of impact analysis methodologies and in the monitoring of their activities. Methodologies capable of translating numbers or qualitative description of the evolution of cer-

tain socioenvironmental contexts. Training of the institutions is an essential step in order to enable the incorporation of these methodologies.

International experiences, such as that of the IDB, show the positive relationship between monitoring, operation and management when related to the SDGs. The IDB defines the expected contribution of each project to the SDGs at the time of its approval. The bank also approves a grant so that each project performs a randomized controlled trial¹¹⁴, in order to account for the results and generate knowledge for future initiatives. During implementation, the project's contribution to the SDGs is monitored by a robust set of indicators. These results feed everything from sector strategies to the Corporate Results Framework, the highest-level tool for monitoring performance and the fulfillment of the bank's strategic goals.

In the NDFS, the creation of an accurate, standardized, quality dashboard of information with disaggregated data can guide the development of common tools and benchmarks for measuring the system's risk and impact through comparison. In this regard, two actions coordinated by ABDE should be highlighted:

- NDFS Project and SDG (ABDE together with the United Nations Development Program – UNDP): Develops the methodology for the classification of the portfolio of DFIs in the SDGs, aiming at identifying the NDFS's contribution to the 2030 Agenda, generating essential data and information on the alignment of the NDFS and the prioritization of the SDGs in these institutions. Status: In progress.
- ABDE and UN Brazil Proposal: Proposal for the construction of an information panel on the performance of the NDFS in the 2030 Agenda. This panel can contribute to the exchange of experiences among the members of the system in order to internalize good practices. It could also support the creation of awards, publications, events, among others, in order to promote the SDGs and other areas that the development policy contributes to, aiming at a greater and better dissemination, internalization, monitoring, and transparency of the 2030 Agenda in Brazil. Status: In negotiation.

¹¹⁴ Randomized controlled trial (RCT) is a type of scientific experiment design aimed at reducing biases when testing a new experimental treatment. Randomization minimizes selection bias, and the different comparison groups allow researchers to determine any treatment effects when compared to the no-treatment (control) group, while other variables are held constant.



The relevance of the NDFS's role in promoting the SDGs in Brazil (...) can have an even greater impact as the system articulates the governance ecosystem (...)

a. Improvement of processes and digitization of DFIs

The role of Information and Communication Technologies (ICT) in the economy and in the resilience of the DFIs is a key element for an efficient performance of the institutions in the sustainable agenda. For these institutions, strengthening data and information processing capabilities is crucial to reduce time, streamline processes, minimize costs, improve efficiency in operations, strengthen information security, and reduce information asymmetries.

Despite all the technological transformation and modernization process experienced by the Financial System in recent years, the Covid-19 pandemic has accelerated the debate on the digitization process in the country. In order to keep themselves going, companies needed to adapt their business to a new digital consumer. DFIs, especially banks, have not been left out of this adaptation. They had to reinvent themselves, rapidly remodeling their processes in order to find technological solutions to better meet the demand for credit and financing.

The advent of the health crisis highlighted the importance of mapping the digital skills of DFIs and the processes to be taken into consideration in improving the digitization structure adopted by DFIs in Brazil, emphasizing the need for knowledge about the potential for expanding the operating capacity of institutions, in particular, to meet the demands of sustainable investment in Brazil. Thus, it is necessary to stimulate digitization processes for the DFIs that support their systems, mitigate risks, and enable new opportunities in operations.

The NDFS follows the trend of incorporating AI into its activities, ranging from apps to the use of personal assistants, enabling a personalized service with all customer data available in databases. It should be highlighted, in this agenda: Banco do Brasil, BNDES, and Basa. The other institutions have also spared no effort to improve their processes and incorporate innovations, such as Badesul's crowdfunding platform and Goiás Fomento's credit robot.

Therefore, the NDFS's digital transformation is a priority. The progressive modernization of the system with new technologies tends to bring improvements for both customers and financial institutions. The solutions will allow more agility to credit granting processes, reducing bureaucracy and information asymmetry, generating more security, reliability, and transparency in the decision-making.

Considering the specifics of the system's performance, there is a need to better understand the alternatives to promote its digital transformation, especially for development banks and development agencies, which have limited budgetary resources to promote the necessary investments in information technology. On the other hand, these institutions find themselves having to adopt these new forms for the provision of their services, including the massive use of technology, data analysis and digitization of procedures¹¹⁵.

As a first step, it is recommended to carry out an international benchmarking with institutions developing other development systems for (i) the mapping of the digital skills required in the process of digital transformation of DFIs; and (ii) the diagnosis of the processes to be taken into consideration in the improvement of the digitization structure adopted by DFIs in Brazil, emphasizing the need for knowledge about the potential for expanding the operating capacity of institutions, especially to meet the demands of sustainable investment in Brazil.

An alternative, already adopted and which can be further explored, is to contract technological solutions and fintechs to enable the prompt provision and use of state-of-the-art technologies. However, the DFIs, most of which are government-held, due to public procurement rules, face challenges in contracting technological solutions that would allow them to increase efficiency. In this case, an alternative could be to carry out joint contracting solutions, which can improve the operational flow with a focus on fulfilling the SDGs.

¹¹⁵ Open Banking reinforces this need, since it is able to open a range of opportunities for the system, from reducing information asymmetry, which allows a more qualified credit analysis, to the possibility of accessing new markets and customers. However, the regulatory framework and the technological infrastructure employed, which is very much directed to the performance of retail banks, still makes it difficult to understand the advantages of this innovative process for subnational DFIs.

It is therefore necessary to increase knowledge about digitization processes in DFIs that support their systems, mitigate risks, and enable new opportunities in operations, given the lack of consolidated information on the maturity of digital transformation practices adopted by NDFS institutions. In this scenario, it is essential to strengthen the monitoring and technical support instruments to the DFIs in this agenda.

Another relevant perspective is the challenge posed to the NDFS to promote the digital inclusion of MSMEs. Access to technological solutions allows companies to reduce costs and better control the environmental and social impacts of their production/operations. For instance, they can use platforms for environmental licensing management and sustainability management software to control greenhouse gas emissions, energy, water, and waste. For this reason, accelerating the process of digitization of MSMEs is a theme of high relevance for the NDFS, given its strong role in supporting MSMEs.

Combinations between traditional mechanisms and new financial instruments will be essential for the desired progress in the contribution of the NDFS to the digitization of MSMEs. Structuring a portfolio of financing instruments for each step of the digital inclusion process, considering the hybrid use of instruments such as grant, debt, tax subsidy, and others, would also increase the possibility of attracting private capital to connect to these structures through blended finance arrangements.

For the progress of the agenda, there will be other challenges to be faced, such as the training of entrepreneurs, in which Sebrae has an essential role; clear and effective communication to the SMEs about the sources and mechanisms for the access to financing; commercialization of innovative services/products and the use of unique criteria for project analysis by development institutions.

ii. Internalization of the SDGs in the institutional frameworks of the National Development Financial System

As shown in the initial part of the ABDE 2030 Plan, several development institutions have made progress in the internalization of the 2030 Agenda in their institutional frameworks, however, there is still a long way to go for the NDFS to exercise its full potential in contributing to the 2030 Agenda. There is room for a more balanced alignment of the strategic planning of the NDFS institutions with the SDGs as their awareness of the 2030 Agenda increases. To this end, it is first necessary to raise awareness among the senior management of these institutions about the urgency of the 2030 Agenda, from the Executive Board to the Board of Directors and shareholders. This is because the State Companies Law (Law No. 13.330/2016, art. 23) provides that it is up to the board to approve annually: i) the Long-Term Strategic Planning; ii) the analysis of risks and opportunities of the strategy, for at least the next five years; and iii) the annual Business Plan, with its goals and indicators.

The integration of language and objectives common to development institutions in relation to the SDGs, as well as the opportunity for institutional learning, through the exchange of experiences, can be essential for the construction of shared agendas between DFIs and public policy managers, for guiding sustainable development policies, and for a coordinated and effective planning to achieve the targets. It is worth highlighting ABDE's SDG project in partnership with GIZ and the Latin American Development Bank (CAF), which collaborates with the prioritization and internalization of the SDG in the strategic actions of the DFIs, and which is an important initial effort in the recognition and appropriation process of the agenda by the institutions considering the characteristics of the system. The methodology, in the experimental implementation phase in some institutions, should be expanded to the other members of the NDFS in order to create data and information standardization in the DFIs, facilitating the identification and evaluation of initiatives of the institutions in the 2030 Agenda. The initiative, currently in the pilot phase, contributes to the consolidation of a broad and comprehensive view of the NDFS alignment with the SDGs.

Some actions can positively contribute to leverage the individual and systemic potential of the NDFS to act in the financing of the 2030 Agenda targets, such as: (i) sensitization of the senior management; (ii) internalization of the SDGs in the Strategic Planning of the NDFS institutions, with the inclusion of targets related to the SDGs in the institutional performance indicators (KPIs); (iii) training of the technical staff on taxonomies; (iv) strengthening capabilities for monitoring and evaluating indicators, including for the measurement and management of cross-potential and spillover effects across the SDGs; (v) fundraising and knowledge of international benchmarks for the fulfillment of the SDGs; and (vi) carrying out a diagnosis/mapping of the territories in which the DFIs work to identify bottlenecks and, consequently, local development priorities; (vi) creation of incentives for an action aligned with the fulfillment of the SDGs within the scope of the workforce of the institutions of the system through qualification and training programs.

The relevance of the NDFS's role in promoting the SDGs in Brazil – financing public policies, acting in an anti-cyclical way, developing strategic sectors, financing long-term projects, contributing to the structuring of projects, and inducing the formulation of policies for the development of the country – can have an even greater impact as the system articulates the governance, financing, public policy and monitoring ecosystem of the SDGs in the country.

The creation of a robust system for monitoring the goals and indicators of the 2030 Agenda could have a positive impact on the performance of the NDFS in the SDGs, contributing to the identification of financing priorities by the actors of the system.





There is room to strengthen the articulation of investments by NDFS institutions with the multiannual planning of the Union, states and municipalities and those with the SDGs.

iii. Articulation with strategic actors

There is room to strengthen the articulation of investments by the NDFS institutions with the multiannual planning of the Federal Government, states and municipalities, and those with the SDGs, as recommended by the Addis Ababa Action Agenda. This alignment would increase the NDFS's capacity to act jointly, interacting with other public and private entities based on a coordinated strategy that supports public policies and the 2030 Agenda based on the missions listed herein. Furthermore, the Addis Ababa Action Agenda recommends that all countries maintain a “cohesive, nationally appropriate sustainable development strategies supported by Integrated National Financing Frameworks (INFF)”¹¹⁶. In the case of Brazil, the NDFS can support the development of an INFF that will direct financing to sustainable development projects and promote the 2030 Agenda in the country.

Some international experiences illustrate this role of articulation between public development institutions with strategic actors from different spheres, aiming at the financing to sustainability. The German development bank KfW, for example, has aligned its mission with the German sustainable development strategy, including core messages of the 2030 Agenda. KfW also prioritizes the construction of economically and socially inclusive infrastructure, the development of efficient financial sectors, and the implementation of measures for environmental and climate protection and adaptation to climate change, as well as programs for the preservation of natural resources. KfW is a pioneer among development institutions with its disbursement mapping targeted at each SDG.

Another example, in Mexico, is the Unidad de Banca de Desarrollo de México (UBD), a network of public financial institutions for development under the management of the Secretariat of Finance and Public Credit, which is responsible for promoting, directing and coordinating the policy of financing of the entities that make up Mexico's national development system. The UBD is responsible for the budgetary, administrative and operational matters of the member institutions, and its actions are aligned with the goals of Mexico's National Development Plan.

¹¹⁶ INFF is a tool to assist countries strengthen planning processes and overcome impediments to the financing for sustainable development and the SDGs at the national level. It sets out the full range of financing sources – domestic and international sources of public and private financing – and allows countries to develop a strategy to increase investments, manage risks, and achieve sustainable development priorities as identified in their national development strategy. For more details, see: <https://inff.org/about>.

Indonesia, on the other hand, was the first country to develop an INFF, and so financing strategies were articulated to support the country's medium-term development plan and the SDG action plan; monitoring frameworks are in place to track progress towards the national vision of sustainable development; and institutional mechanisms were put in place to coordinate the delivery of the medium-term development plan and the SDG action plan. The SDG Financing Center of Indonesia's Ministry of Planning (BAPPENAS), leader in the implementation of the SDGs, will be the focal point for the implementation of the INFF in the country. The center's role will be that of convening, coordinating and harmonizing policies, and it will articulate with ministries and actors responsible for the financing policies in order to build a holistic approach to the financing for sustainable development, develop innovative financing products, and mobilize private investments.

A relevant step towards the construction of a governance system for the SDGs in Brazil is the approval of PL 1308/2021, which establishes the **Policy for the Promotion of the 2030 Agenda for Sustainable Development**, and the articulation of this policy with an INFF that will establish a clear role for the NDFS in financing and monitoring the 2030 Agenda.

In parallel with the construction of a governance system, the ABDE 2030 Plan can help each NDFS institution develop a transition plan for a sustainable economy in line with the NDFS's potential in this agenda, and suited to their local performance realities and maturity, combining public, private and international resources to carry out the missions proposed in the previous chapter. The ABDE 2030 Plan seeks to contribute to the coordination of NDFS initiatives, support DFIs in the development of their transition plans, articulate national

and international partnerships for the execution of these plans, and support the strategic alignment of the NDFS with the new administration – including for the formulation of national strategies and public policies, as well as the agreement of specific indicators for strategic sectors.

It is possible to organize, as consortium, the cooperation between NDFS institutions and other institutional actors, strengthening the governance process and contributing to the progress of the agenda. Sebrae, Senai, Senac, trade associations and others can be instrumental partners in fundraising and structuring projects and in associating non-financial services with credit services provided by DFIs, increasing their attractiveness and reducing their risk. These institutions, and possibly others, including specially-selected private companies, can greatly contribute to a better quality of projects, sometimes still limited – notably in the priority themes of action of the DFIs in the 2030 Agenda.

In summary, the following are important actions for the articulation of strategic actors: (i) the coordination of transition plans; (ii) support for the creation of a Policy for the Promotion of the 2030 Agenda for Sustainable Development (PL 1308/2021) with a clear role for the NDFS in financing and monitoring the 2030 Agenda; (iii) creation of an integrated national financing framework (INFF); and (iv) monitoring the ABDE 2030 Plan, which could be led by a sustainable development commission within the scope of a National Development Financial System for sustainable transition.

iv. Adaptation of the institutional and regulatory framework of the DFIs

The purpose of adapting the regulatory framework for DFIs is to review the regulation to which NDFS institutions are subject, seeking to address their specificities in the credit market and their systemic importance for the resilience of the National Financial System. The performance of the DFIs as an arm of public policy in sustainable development for the feasibility of the 2030 Agenda will demand the identification of paths that involve an expansion of their possibilities from the regulatory perspective, so that they play a differentiated and appropriate role in the current context.

On the sustainability agenda, the BC# Agenda of the Central Bank of Brazil has contributed to the progress of the NDFS's sustainability commitments by improving the regulation of socioenvironmental¹¹⁷ risks and the dissemination of information by DFIs.¹¹⁸ Also noteworthy are initiatives such as stress tests for climate risks, capturing information on social, environmental and climate risks, creating a sustainable liquidity line, and including sustainability criteria for the selection of counterparties in the management of international reserves and for investment selection.

There is a need to reinforce the institutionalization of a national taxonomy for sustainability, in order to generate security for the actors involved in projects of this nature. Several taxonomies are under development in the country and the consolidation and standardization in the legislation format would undoubtedly be an institutional progress. The NDFS could mobilize the actors to discuss the matter, articulating the construction of a proposal with the Executive and Legislative Powers. The Financial Innovation Laboratory (LAB), an ABDE project developed in the last five years in partnership with the IDB, the Securities and Exchange Commission (CVM) and the GIZ, has been discussing the matter with the various actors that are members of the initiative, including the mapping of international taxonomies already adopted.

An alternative would be to create incentives for a differentiated treatment for socioenvironmental and climate risk management. This could happen, for example, through the flexibilization, by the Central Bank, of capital requirements for long-term assets associated with the 2030 Agenda. Furthermore, a system of positive ratings – risk reducers – could be created for projects associated with the SDGs for long-term resources.

The NDFS is a privileged actor for this role, since it has instruments to raise funds for a longer period than the private market, it has a mandate that legitimizes it in this role, and it can rely on federal instruments for mitigation and sharing of risks, in addition to being able to act as a catalytic agent and beacon of promising projects for

¹¹⁷ Public Consultation 85/2021; CMN Resolutions 4.943, 4.944 and 4.945

¹¹⁸ Public Consultation No. 86/2021; BCB Resolution No. 139/2021; BCB Normative Instruction No. 153/2021

the market. More importantly, by funding a long-term climate positive agenda, the NDFS will effectively be contributing to reducing systemic risk as it acts as to reduce the likelihood (or reduce the economic and social consequences) of the accelerating extreme weather events.

However, the regulations currently in force restrict subnational institutions, especially development agencies, in the development and use of innovative financial instruments that are compatible with the sustainability challenge that has been pointed out by recent BCB standards. The commitment to the 2030 Agenda requires, at this point, an in-depth analysis of the National Monetary Council Resolutions No. 2828 (Development Agencies) and No. 394 (Development Banks), as well as concrete proposals for changes so that these institutions can fulfill their mandates and all the possibilities pointed out in this ABDE 2030 Plan and in the missions listed above.

PL 4691/2016 creates a special taxation regime for development banks and development agencies controlled by the states and should be supported by the NDFS. The PL's provisions could be reformulated to create mechanisms that link tax incentives to the promotion of sustainable projects that meet the SDG targets. The retention of a percentage of the resources to be paid from IR (Income Tax) and CSLL (Social Contribution on Net Income), for example, would be linked to the allocation to the financing of sustainable projects, linked to specific SDGs, according to the need for development of the region or even for SDGs prioritized by the Policy for the Promotion of the 2030 Agenda for Sustainable Development (PL 1308/21), if the project is approved, or by a specific policy to be created.

v. Funding sources

The funding of the NDFS institutions is an essential aspect for the success of the system's performance in the sustainable development agenda. The NDFS institutions need to have strong balance sheets and funding sources that are not tied to cyclical elements in order to fulfill their role quickly, efficiently, and effectively. For this, it

is important to have diversification of funding sources, which has as a starting point a greater integration with BNDES and Finep so that subnational institutions can contribute with financing, for example, to micro and small-sized enterprises.

Nevertheless, diversification may involve access to non-refundable resources for priority actions, incentives to new funding and financing methods, mobilization of resources from the national and international private sector, and enabling private investments. Furthermore, it would also be possible to create an self-regulation system for SDGs for the NDFS, indicating minimum criteria for adaptation by all institutions, and which can contribute to better integration and synergy among the NDFS institutions.

A complementary action to the expansion of the national funding possibilities would be the expansion of fundraising from international and multilateral funds and banks. To this end, it is essential to increase and deepen the System's knowledge of and access to these funds and international banks, especially the development agencies. On the other hand, it is important that international institutions also propose differentiated criteria for the provision of resources compatible with the specificities of the institutions and the places in which they operate.

One proposal would be to change article 2 of CMN Resolution No. 2828 as to allow development agencies to raise funds with international financial institutions and guarantee such operations via multilateral development organizations. Resolution 2828 can also be amended, aiming at strengthening international funding, by allowing the issuance of letters of credits, green and social bonds, and sustainable bonds. Such measure would have a positive effect on the access of these institutions to resources, as well as help reduce investment risk and attract private sector resources to projects in line with the SDGs. In addition, the Central Bank could classify development agencies at different levels, so that some of them would be able to issue letters of credit and sustainable bonds.

The creation of innovative partnerships, with unionized financing or a consortium of DFIs around specific SDGs, which allow the consortium institutions to carry out matchings based on policy portfolios with different inputs from public bodies, would scale up smaller DFIs to access funding sources inside and outside Brazil, in addition to capillarity in the financing of larger DFIs. Thus, strengthening the coordination of the NDFS becomes very important, as it enables enhancing the reach and impact of financed projects. This new method of fundraising could be inspired by the partnership between Banco da Amazônia, the State Government of Roraima, and Desenvolve Roraima, for channeling resources from the Constitutional Financing Fund of the North (Fundo Constitucional de Financiamento do Norte, FNO).

The creation of a national fund to promote the SDGs, with contributions from the federal government, states, municipalities, multilateral organizations, and the private sector, could be a public policy alternative to provide resources for the achievement of sustainable targets. This fund could be created as per specific legislation, or even introduced in PL 1308/2021¹¹⁹. Tax incentive mechanisms could be tied in as revenue sources for the fund. It should be managed by an official institution (for instance, BNDES) and the onlending of its resources would be under the management of development financial institutions, ensuring that the goals determined for their application would be fulfilled per region, creating conditions for development in all parts of the country.

It is also worth highlighting the importance of maintaining the Constitutional Funds (FNO, FNE, FCO, and FNDCT) as sources of stable funding for the long-term financing of public investments, to the production sector and families, contributing to the reduction of regional inequalities, especially by leveraging sustainable projects in the North, Northeast, and Midwest regions. Over the last few years, these funds have brought a significant return to Brazilian society, and they are crucial instruments for the country's economic development.

¹¹⁹ Provides for the creation of a Policy for the Promotion of the 2030 Agenda for Sustainable Development.

Given the magnitude of the applied resources, the space required for such action, and the nature of its public policy, the funds are essential to guarantee financing initiatives for an economic recovery, alleviating the fiscal crisis, and promoting regional development.

The creation of a coordination for the integrated performance between the managing banks of the funds and the subnational development financial institutions acting in the regions supported by them, with the definition of specific programs, goals and targets focused on the SDGs, could enhance opportunities, even contributing to attracting and channeling external resources to meet regional needs.

Law No. 14.227/2021 expanded the use of the Infrastructure Guarantee Fund (Fundo Garantidor de Infraestrutura) (FGIE), allowing the fund to enable the structuring and development of concession projects and public-private partnerships of the federal, state, Federal District, and municipal governments, with a focus on the North, Northeast, and Midwest regions. The FGIE is established as an important funding source, providing a great possibility of its use by subnational institutions. The NDFS could use the FGIE to make the structuring and development of concessions and PPP projects feasible; grant guarantees aimed at covering for the risks related to non-compliance with pecuniary obligations undertaken by the public partner in PPPs; and allow participation in investment funds regulated by the CVM, in the form of seed funding.

Other models could be structured, such as, for example, having a financing institution and another that complements the operation with non-refundable resources.¹²⁰ Moreover, development agencies could receive, analyze, and filter the projects, and pass the demand on to the larger banks (the role of representative agent). They would thus be a type of platform for the larger banks to promote development in the states.

¹²⁰ For example, BNDES could act as the backer for the bancarized part, while Finep would provide the grant. Instead of BNDES requiring a guarantee, the bank would only require a pre-approval from Finep to grant the financing.

vi. Strengthening the use of blended finance, guarantees, and innovative instruments

With the need to strengthen funding sources for the NDFS and in view of the volume of resources needed to finance the SDGs, strategies that allow the joint action of public and private agents gain momentum to increase the availability of resources for sustainable development projects. In this sense, blended finance is gaining strength, that is, hybrid financing structures that can combine various instruments, such as subordinated capital (debt, equity, or hybrid), guarantees and insurance, grants for supporting projects, payment for results, and technical assistance. DFIs are important actors in blended finance, aimed at the strategic use of public resources and mobilization of private resources for the sustainable agenda.

The use of blended finance is not about obtaining more resources for development institutions, but about creating the capacity to mobilize resources in favor of sustainable development projects. The use of blended finance also addresses an important aspect related to sustainable impact projects: risks. This is especially evident in the case of long-term projects, where the sharing of risks between public and private institutions leads to better balancing risks in their portfolios and thus allowing to carry out a greater number of investment projects, as well as bolder and more innovative projects.



The use of blended finance is still incipient in the country, as seen in the OECD report on the role of DFIs in sustainable development with emphasis on the case of Brazil¹²¹, but it has been increasingly explored by DFIs and, therefore, should be part of the strategies for strengthening funding sources for the 2030 Agenda. In the case of Brazil, the report pointed out that most of the resources mobilized through these structures are still channeled mainly to the energy, banking and services sectors, therefore, it is essential to expand them to all sustainable targets.¹²²

In turn, guarantee products are instruments to support productive development¹²³. They have the potential to develop financial markets in the sense of broadening their scope (inclusion and amount of companies served), financial additionality (volume and improvement of credit conditions), and economic additionality (benefits to the economy, such as employment, investment, exports). The World Bank states, as one of the principles for credit guarantee systems, that the approach for granting guarantees “should adequately show a balance between outreach, additionality and financial sustainability, taking into account the level of development of the country’s financial sector” (TCU, 2021).

The guarantee funds, which are an important mechanism in Brazil, enable public and private participation and can be directed to a stronger action around the goals of the 2030 Agenda. National guarantee funds are managed by public institutions, but set up as a private entity, that is, with a separate budget from these institutions. The Investment Guarantee Fund (Fundo Garantidor de Investimentos), managed by the BNDES, also receives contributions from financial institutions as a condition for using the fund, acting as shareholders. There is also a relevant number of state guarantee funds (fundos de aval)¹²⁴, managed by subnational institutions of the NDFS, in which the state governments contribute resources and the DFIs act as trustees. Thus, the states assume the risk, while the bank is responsible for the management.

¹²¹ According to the OECD report “The role of domestic DFIs in using blended finance for sustainable development and climate action: The case of Brazil.” Available at: <https://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/>

¹²² OECD “The role of domestic DFIs in using blended finance for sustainable development and climate action: The case of Brazil.” Available at: <https://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/>

¹²³ Abroad, the actual GDP of some regions of Germany increased by around 1.2 euros for every euro allocated to guarantees, each year between 1991-2015 (HENNECKE et al., 2017). Efficiency studies carried out within the scope of the European Association of Guarantee Institutions (AECM), in the 2009-2010 biennium, showed that companies supported by guarantee funds generated more work (between 0.28 and 1.42) and observed an increase in 14.4% in employment and a 79% growth in investments in relation to unsupported companies (AECM 2020).

¹²⁴ Banese (Guarantee Fund), Bansicred (FGCoop), Bancoob (FGCoop), Cresol (Guarantee Fund of Credit Cooperatives – FGCoop), Bades (Bades Guarantee Fund), BRDE (ACATE Guarantee Fund (FGA)), Fomento PR (Guarantee Fund for Micro and Small-sized Enterprises of Paraná – FAG/PR), Fomento Tocantins (Guarantee Fund for PPIs – FAGE – Tocantins), Fomento MT (Guarantee Fund of Mato Grosso MT Garante), Desenvolve SP (Guarantee Fund – FDA), Badesc (Guarantee Fund of the State of Santa Catarina – FAE/SC), BDMG (MG Investe Garantidor).

The guarantees illustrate the combination of NDFS leadership and private resources for financing. Furthermore, the data on operations with national guarantee funds show great adherence by private financial institutions to the mechanism, which is, therefore, a positive indicator for the engagement of actors in the context of sustainable transition. During the Covid-19 pandemic, such mechanism, which was already widely used by national financial institutions, gained prominence.

The emergency support programs for MSME financing, such as the FGI PEAC and the FGO Pronampe, work as a risk sharing mechanism between the federal government and public and private financial institutions in credit operations for MSMEs. It is also worth noting FAMPE, Sebrae's guarantee fund, which has great potential, such as, for example, the proposal to set up a guarantee fund in partnership with Finep for innovation. It would be the first guarantee fund with such focus in the country. For its use in projects in line with the 2030 Agenda, it is important to address the opportunities and especially the challenges observed in the use of the mechanism in this context, given the specificities of sustainable projects.

An important measure in the current context would be, in the first place, the creation of a guarantee fund for the SDGs, with well-defined criteria for granting credit aligned to the achievement of sustainable results and prioritization of sectors, helping leverage resources for this agenda.

The guarantees can increase the risk appetite of private financial institutions for socioenvironmental projects, especially for innovative ones, which have the purpose of creating more sustainable alternatives and increasing productivity in the context of this agenda, which therefore are riskier, thus being an important element in the fulfillment of the established targets. As such, the government could structure guarantee funds focused on meeting the presented missions.

In order to enable the use of such instrument in the context of the SDGs and for the mechanism to work in the long term, it is necessary to address some challenges. The first one is due to the resources to be contributed to the fund, which needs to be in a large volume. The contributions can be driven by the public initiative, which has a greater risk appetite in development projects, but it is essential to study the complementing possibilities with contributions from private and international institutions in order to accommodate the volume of investments estimated by the agenda. In addition, the conditions for the use of guarantee funds by financial institutions need to consider the specificities of subnational institutions, precisely because they are closer to the side of demand, therefore, have a greater capacity to meet sustainable investments at the local level.

Among the alternatives for the use of such instrument, one can think of adapting the use of national and subnational guarantee funds already established to the SDG criteria, which would require training on and internalization of the agenda in institutions and in the government and society spheres. Still, in terms of structure, it can be used the example of public guarantee programs with contributions from the Federal Government to build a guarantee mechanism that is part of a broad strategy of national public policy for the sustainable agenda.

Other examples that should be considered are Solidarity Guarantee Funds and Credit Guarantee Companies, and hybrid guarantee funds, with contribution from the states that allow the attraction of resources from shareholders to make up the net equity and with well-defined SDG granting criteria.

It is also possible to think about the creation of vertical guarantee funds to stimulate the industrialization of MSMEs and energy transition, in addition to the creation of a guarantee fund reinsurance market – as already made possible by the National Credit Guarantee System¹²⁵, in light of the experience of the BNDES – that would allow reshaping the risk in order to give more space to non-traditional borrowers such as fintechs, small rural producers, and MSMEs led by women and black people. The mapping of initiatives in Brazil and abroad is a crucial factor to articulate proposals for an adequate structuring and use of the mechanism by the entire financial system in favor of strengthening the 2030 Agenda.

¹²⁵ Instituted by Decree No. 10.780/2021, pursuant to the provisions of art. 60-A of Supplementary Law No. 123/2006]

In the case of public-private partnerships with inclusion of SDG criteria, the role of the NDFS can be essential, acting as: (i) investor, through direct or indirect equity participation via investment funds; (ii) backer, through the granting of bridge loans to concessionaires or mini-perm structures; (iii) guarantor, by protecting the concessionaire's contract against exchange variation and hedging of interest rates applicable to the financing taken by the concessionaires; (iv) capital market developer, via bond issuance through state development agencies and development banks; (v) provider of additional and subordinated long-term financing, e.g. if the PPP does not generate sufficient cash to pay the debt service and/or provide the minimum level of services, or if additional funds are needed during implementation.

In the case of Law No. 14.227/2021, the NDFS could use the fund to make the structuring and development of concessions and PPP projects feasible; granting guarantees aimed at covering for the risks related to noncompliance with pecuniary obligations undertaken by the public partner in PPPs; and allowing participation in investment funds regulated by the CVM, in the form of seed funding.

The DFIs could also act as structuring actors, with sufficiently small financing to generate confidence and attract private capital, or as enhancing actors, by granting guarantees for company issues or by providing guarantees to small banks that want to take financing for themselves. In addition, the NDFS can act as to support the structuring of a pipeline of projects, in particular for smaller municipalities.

Legislative follow-up: bills of interest to the NDFS regarding PPPs

PL No. 7063/2017 – amends Law No. 11.079/2004 to reduce the minimum value of public-private partnership contracts entered into by the states, Federal District and municipalities.

PEC No. 119/2019 – sets forth, over a fifteen-year period, that 1% (of the 3% estimated) of the constitutional funds of the Northeast, North and Midwest (FNE, FNO and FCO) shall be earmarked for public investments in logistical infrastructure for rail, road and waterway transport, as well as power generation and transmission. PEC No. 119/2019 also authorizes other financial institutions, credit unions, and state development agencies to grant loans with resources from the constitutional funds.

The development of the green and sustainable bond market contributes to the mobilization of national and international private agents towards sustainable investments. This is because green bonds provide greater transparency in the use of resources and the rigorous eligibility of projects are positive points pointed out by investors, thus being extremely important for attracting national and international capital for sustainable projects. Here, we highlight infrastructure debentures as a fundraising opportunity for companies and projects that meet the SDG criteria.

REFERENCES

AECM. **ACME Scoreboard H1 2020**. ACME, Brussels, 2021.

AECM. **Statistical Yearbook 2019**. ACME, Brussels, 2020.

BAKKER, L. B. e Geluda, L. **Sustentabilidade financeira de unidades de conservação federais com manguezais no Brasil**. PNUD e Funbio, Rio de Janeiro.

BANCO MUNDIAL. **Principles for public credit guarantee schemes for SMEs**. Washington, D.C.: World Bank Group, 2015.

BID. **Letra de Desenvolvimento Sustentável: um instrumento inovador para o setor financeiro e de apoio à atuação do Sistema Nacional de Fomento**. Autores: CAVAZZONI, R.; PORTO, R. Documento para discussão número IDB-DP-868, 2021.

BID. **Análisis del potencial de eficiencia energética en iluminación pública: El caso de municipios pequeños y medianos de Brasil**. Autores: POVEDA, M.; ALARCON, A. 2018. Nota Técnica IDB-TN-1574, 2018.

BNDES. **Blended finance**. Rio de Janeiro: Banco Nacional do Desenvolvimento Econômico e Social, 2021.

BNDES. **Painel ODS - nossa contribuição para a Agenda 2030**. Banco Nacional do Desenvolvimento Econômico e Social. Acesso em 2022.

BOLT, J.; VAN ZANDEN, J. L. **Maddison style estimates of the evolution of the world economy: A new 2020 update**. Maddison-Project Working Paper WP-15, 2020.

BRASIL. Banco Central do Brasil. **IF DATA**. Acesso em 2022.

BRASIL. **Decreto nº 10.605, de 22 de janeiro de 2021**. Institui o Grupo de Trabalho Interministerial com a finalidade de desenvolver o Plano Nacional de Fertilizantes. Presidência da República, 2021.

BRASIL. Ministério da Agricultura, Pecuária e Abastecimento. **Transferência de Tecnologia: Processos inovadores de transferência da tecnologia agropecuária**. Acesso em 2022.

BRASIL. Ministério do Meio Ambiente. **Agenda Nacional de Qualidade Ambiental Urbana: Plano de Combate ao Lixo no Mar**. Ministério do Meio Ambiente, Secretaria de Qualidade Ambiental, Departamento de Gestão Ambiental Territorial, Coordenação-Geral de Gerenciamento Costeiro. Brasília: MMA, 2019.

BRASIL. Ministério do Meio Ambiente. **Plano Nacional de Adaptação à Mudança do Clima: 1º Relatório de Monitoramento e Avaliação 2016 – 2017**. Ministério do Meio Ambiente, Secretaria de Mudança do Clima e Florestas. Brasília: MMA, 2017.

BRASIL. Ministério do Meio Ambiente. **Plano Nacional de Adaptação à Mudança do Clima: Relatório Final de Monitoramento e Avaliação - Ciclo 2016-2020**. Brasília: Secretaria de Clima e Relações Internacionais, 2021.

BRASIL. Ministério do Meio Ambiente. **Relatório final de monitoramento e avaliação do Plano Nacional de Adaptação à Mudança do Clima (PNA) Ciclo 2016-2020: Síntese e análise dos resultados do levantamento realizado junto ao setor empresarial**. Ministério do Meio Ambiente, Secretaria de Clima e Relações Internacionais. Brasília: MMA, 2021.

BRASIL. Tesouro Nacional. **SADIPEM - Dados de 2021**. Acesso em 2022.

BRASIL. Tribunal de Contas da União. **Acórdão nº 2.333/2021**. Plenário. Relator: Ministro André Luis de Carvalho. Sessão de 29/9/2021. Diário Oficial da União, Brasília, DF, 08 out. 2021.

CCFLA. **State of City Climate Finance 2015**. Nova York: Cities Climate Finance Leadership Alliance (CCFLA), 2015.

CONWAY, S et al. **Enhancing the Role of National Development Banks in Supporting Climate - Smart Urban Infrastructure: A Policy Brief for the Cities Climate Finance Leadership Alliance**. Nova York: Cities Climate Finance Leadership Alliance, 2020.

COSTA, A. **O desenvolvimento econômico na visão de Joseph Schumpeter**. Cadernos IHU Idéias, ano 4, n. 47. São Leopoldo: Instituto Humanitas Unisinos, 2006.

DE CASTRO, A. **No espelho da China**. Seminários DIMAC, n. 288. Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada, 2008.

DEUTZ, A. et al. **Financing nature: Closing the global biodiversity financing gap**. The Paulson Institute, The Nature Conservancy e Cornell Atkinson Center for Sustainability, 2020.

DIAS, B.; SILVA, M.; MARINELLO, L. **Comentários e recomendações para regulamentar o Protocolo de Nagoia no Brasil**. Revista da ABPI, n. 171, Mar/Abr, 2021.

DIAS, M. et al. **Auditoria da Pesca Brasil 2020: Uma avaliação integrada da governança, da situação dos estoques e das pescarias**. Oceana Brasil, Brasília, 2. ed., 2022.

FINEP. **Transparência e Prestação de Contas**. Acesso em 2022.

FÓRUM BRASILEIRO DE SEGURANÇA PÚBLICA. **Anuário Brasileiro de Segurança Pública**. Ano 15, 2021.

FREITAS, D.; XAVIER, L.; SHINODA, L. **Jornada de Gerenciamento Costeiro e Planejamento Espacial Marinho**. Instituto Oceanográfico da Universidade de São Paulo, 2014.

GADELHA, C. **O complexo industrial da saúde e a necessidade de um enfoque dinâmico na economia da saúde**. Ciência e saúde coletiva, Rio de Janeiro, v. 8, n. 2, p. 521-535, 2003.

GADELHA, C. **O Complexo Econômico-Industrial da Saúde 4.0: por uma visão integrada do desenvolvimento econômico, social e ambiental**. In: Cadernos do Desenvolvimento (jan-abril de 2021). v. 16, n. 28, 2021.

GIZ. **Contas Econômicas Ambientais: O que são?** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Brasília, DF: 2019.

GLOBAL CARBON PROJECT. **Supplemental data of Global Carbon Budget 2021 (Version 1.0) [Data set]**. Global Carbon Project, 2021.

GRIFFITH-JONES, S. **Discussion Paper: Development Banks and their key roles supporting investment, structural transformation and sustainable development**. Berlin: Bread for the World, 2016.

GRUPO DE TRABALHO DA SOCIEDADE CIVIL PARA A AGENDA 2030. **V Relatório Luz da Sociedade Civil Agenda 2030 de Desenvolvimento Sustentável**. Brasil, 2021.

HEISEY, P. W.; FUGLIE, K. O. **Public agricultural R&D in high-income countries: Old and new roles in a new funding environment.** Global food security, v. 17, p. 92-102, 2018.

HENNECKE, P.; NEUBERGER, D.; ULBRICHT, D. **The economic and fiscal value of German guarantee banks.** Thünen-Series of Applied Economic Theory - Working Paper, No. 152, Universität Rostock, Institut für Volkswirtschaftslehre, Rostock, 2017.

HESHMATI, A. **A Review of the Circular Economy and its Implementation.** International Journal of Green Economics, v. 11, n. 3-4, p. 251-288, 2017.

IBGE. **Conta de Ecossistemas: Valoração do Serviço do Ecossistema de Provisão de Água Azul - 2013 – 2017.** Coordenação de Contas Nacionais e Coordenação de Recursos Naturais e Estudos Ambientais. Contas Nacionais n. 81, Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 2021.

IBGE. **Indicadores brasileiros para os Objetivos de Desenvolvimento Sustentável – ODS.** Instituto Brasileiro de Geografia e Estatística, 2021.

IBGE. **Pesquisa de Informações Básicas Municipais (MUNIC) – 2020.** Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 2020.

IFC. **Accelerating Sustainable Finance Together: Global Progress Report of the Sustainable Banking and Finance Network: Evidence of Policy Innovations and Market Actions across 43 Emerging Markets.** International Finance Corporation, 2021.

IMAZON. **Monitoramento.** Imazon, 2021.

INPE. **Monitoramento do Desmatamento da Floresta Amazônica Brasileira por Satélite.** Disponível em: Terrabrasilis – Plataforma de dados geográficos. Instituto Nacional de Pesquisas Espaciais. Acesso em 2022.

INSTITUTO CIDADES SUSTENTÁVEIS. **Índice de Desenvolvimento Sustentável das Cidades. Brasil, 2021.**

IPEA. **A Desigualdade Racial no Brasil nas Três Últimas Décadas. Texto para discussão n. 2657.** Brasília: Instituto de Pesquisa Econômica Aplicada, 2021a.

IPEA. **Atlas da Violência 2021**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2021b.

IPEA. **Cadernos ODS: ODS 6 – O que mostra o retrato do Brasil?**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2019a.

IPEA. **Cadernos ODS: ODS 11 – O que mostra o retrato do Brasil?**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2019b.

IPEA. **Cadernos ODS: ODS 13 – O que mostra o retrato do Brasil?**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2019c.

IPEA. **Cadernos ODS: ODS 14 – O que mostra o retrato do Brasil?**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2019d.

IPEA. **Cadernos ODS: ODS 15 – O que mostra o retrato do Brasil?**. Brasília: Instituto de Pesquisa Econômica Aplicada, 2019e.

IPEA. **Objetivos de Desenvolvimento Sustentável - ODS**. Instituto de Pesquisa Econômica Aplicada. Acesso em 2021.

ISLAM, S. N; KENNETH, I. **From “structural change to transformative change: Rationale and implications**. Department of Economic and Social Affairs - UN-DESA. Working Paper, n. 155, 2018.

MAPBIOMAS. **A dinâmica da superfície de água do território brasileiro: Principais resultados do Mapeamento anual e mensal da superfície de água no Brasil entre 1985 até 2020**. Projeto MapBiomass, 2021.

MARENGO, et al. **Impacto, vulnerabilidade e adaptação das cidades costeiras brasileiras às mudanças climáticas: Relatório Especial do Painel Brasileiro de Mudanças Climáticas**. Painel Brasileiro de Mudanças Climáticas (PBMC), COPPE/UFRJ, Rio de Janeiro, 2016. 184 p.

MAZZUCATO, M. **Mission-oriented innovation policies: challenges and opportunities**. Industrial and Corporate Change, v. 27, n. 5, p. 803-815, 2018.

MIROUDOT, S. **Resilience versus robustness in global value chains: Some policy implications.** In BALDWIN, R., and S. EVENETT (eds.), COVID-19 and Trade Policy: Why Turning Inward Won't Work. VoxEU CEPR Policy Portal, 2020.

NERI, M. **Desigualdade de Impactos Trabalhistas na Pandemia.** Rio de Janeiro: FGV Social, 2021.

NETO, J.; DIAS, J. **O uso da biodiversidade aquática no Brasil: uma avaliação com foco na pesca.** Brasília: IBAMA, 2015.

NOBRE, A. C. S. **A Implementação do 14º Objetivo para o Desenvolvimento Sustentável das Nações Unidas: A Participação da Sociedade Civil Brasileira.** 2019. 132 p. Dissertação (Mestrado em Gerenciamento Costeiro) – Instituto de Oceanografia, Universidade Federal do Rio Grande, Rio Grande, 2019.

NOBRE, C. **Is the Amazon near a Tipping Point?** American Geophysical Union, Fall Meeting, 2020.

OBSERVATÓRIO DO CLIMA. **Análise das emissões brasileiras de gases de efeito estufa e suas implicações para as metas climáticas do Brasil 1970 – 2020.** Sistema de Estimativas de Emissões e Remoções de Gases de Efeito Estufa (SEEG), 2021.

OBSERVATORY OF ECONOMIC COMPLEXITY. **Dados de comércio internacional do Brasil.** Harvard, MIT. Acesso em jan. de 2022.

OCDE. **Framework for SDG Aligned Finance.** Paris: Organização para a Cooperação e Desenvolvimento Econômico, Programa das Nações Unidas para o Desenvolvimento Econômico e Ministère de l'Europe et des Affaires étrangères, 2020.

OCDE. **The role of domestic DFIs in using blended finance for sustainable development and climate action: The case of Brazil,** 2020.

ONU. **Adaptation Gap Report 2021: Executive Summary. Adaptation Gap Report 2021.** Organização das Nações Unidas, 2021.

ONU. **Transformando Nosso Mundo - A Agenda 2030 para o Desenvolvimento Sustentável.** Tradução: Centro de Informação das Nações Unidas para o Brasil (UNIC Rio). Organização das Nações Unidas, 2015.

OUR WORLD IN DATA. **SDG Tracker**. Acesso em: 2021.

PENG, Y. et al. **Plastic waste release caused by COVID-19 and its fate in the global ocean**. Proceedings of the National Academy of Sciences, v. 118, n. 47, 2021.

PINTO, A. **Naturaleza e implicaciones de la” heterogeneidad estructural” de la América Latina**. El trimestre económico, v. 37, n. 145, p. 83-100, 1970.

PNUD. **BIOFIN - Iniciativa de Financiamento para a Biodiversidade: Policy Brief**. Brasília: Programa das Nações Unidas para Desenvolvimento, 2020.

PNUMA. **The heat is on: a world of climate promises not yet delivered. Emission Gap Report 2021**. Programa das Nações Unidas para o Meio Ambiente. Nairobi, 2021.

PUGA, F.; DE CASTRO, L. (Org.). **Visão 2035: Brasil, país desenvolvido: agendas setoriais para alcance da meta**. Rio de Janeiro: Banco Nacional de Desenvolvimento Econômico e Social, 2018.

REDE BRASILEIRA DE PESQUISA EM SOBERANIA E SEGURANÇA ALIMENTAR E NUTRICIONAL. **Inquérito Nacional sobre Insegurança Alimentar no Contexto da Pandemia Covid-19 no Brasil**. Projeto VigiSAN, 2021.

REIS, C. F.; CARDOSO, F. G. **Center and periphery in global value chains: An interpretation based on the pioneers of development**. In: Contemporary Issues in Heterodox Economics. Routledge, 2020. p. 171-190.

REIS, C. F. B.; BARBOSA, M. S.; CARDOSO, F. G. **The South’s thoughts on development: links between Latin America and Africa**. Revista de Economía Mundial, n. 52, 2019.

ROMEIRO, D. L., CARDOSO, F.L., SCHECHTMAN, R., BRIZON, L. C., Figueiredo, Z. M. **Transporte público e a Covid-19: o abandono do setor durante a pandemia**. Rio de Janeiro. Centro de Estudos em Regulação e Infraestrutura da Fundação Getúlio Vargas (FGV CERI), 2021.

ROMERO, J.; GRAMKOW, C. **Economic Complexity and Greenhouse Gas Emissions**. World Development, 139, pp. 1-18. 2021.

SACHS, J. et al. **Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals**. Cambridge University Press, 2021.

SACHS, J.; KROLL, C.; LAFORTUNE, G. **SDG Index**. 2021.

SCHADECK, R. (Org.). **Relatório de danos materiais e prejuízos decorrentes de desastres naturais no Brasil: 1995 – 2019. 2. ed.** Centro Universitário de Estudos e Pesquisas sobre Desastres; Banco Mundial. Florianópolis: CEPED/UFSC, 2020.

SILVA, V.P. M.; CAPANEMA, L. X. L. **BNDES Setorial (Edição Saneamento) - 2011 a 2019**. Rio de Janeiro: BNDES, 2019.

SOMMER, S. **Finanças sustentáveis: um panorama**. Brasília: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Finanças Brasileiras Sustentáveis (FiBraS) e Laboratório de Inovação Financeira (LAB), 2020.

SNIS. **Diagnóstico Temático Serviços de Água e Esgoto (2021)**. Brasília: Ministério do Desenvolvimento Regional, Sistema Nacional de Informações sobre Saneamento, 2021.

SNIS. **Painel de informações sobre o saneamento**. Brasília: Ministério do Desenvolvimento Regional, Sistema Nacional de Informações sobre Saneamento, 2021.

SOUSA, A.C.A. de. **O que esperar do novo marco do saneamento?**. Cadernos de Saúde Pública, v. 36, n. 12, 2020.

STEINER, A. **Financing for Development and 2030 Agenda: Keynote speech at the High-Level Conference on Financing for Development and the Means of Implementation of the 2030 Agenda for Sustainable Development**. Doha, Qatar, 2017.

STUDART, R.; RAMOS, L. **The new development banks and the financing of transformation in Latin America and the Caribbean**. Southern-Led Development Finance: Solutions from the Global South, p. 49-82, 2020.

THE NATURE CONSERVANCY (TNC). **Financiando a conservação da natureza: Eliminando a lacuna no financiamento da conservação da biodiversidade global**, 2020.

UN GLOBAL COMPACT – REDE BRASIL. **Diálogos de Financiamento Climático**. Brasília, 2018.

UNICEF. **O Papel fundamental do saneamento e da promoção da higiene na resposta à Covid-19 no Brasil**. Nota Técnica, p. 10, 2020.

VAZQUEZ, K., ROYCHOUDHURY, S.; BORGES, C. **Building infrastructure for 21st Century Sustainable Development: lessons and opportunities for the BRICS-led New Development Bank**. New Delhi: O.P. Jindal Global University, 2017.

WIJKMAN, A.; SKÅNBERG, K. **The Circular Economy and Benefits for Society Jobs and Climate Clear Winners in an Economy Based on Renewable Energy and Resource Efficiency**. Clube de Roma, 2017.

WMO. **WMO provisional Statement on the Status of the Global Climate in 2019**. World Meteorological Organization, 2020a.

WMO. **WMO Statement on the Status of the Global Climate in 2019**. World Meteorological Organization, 2020b.

ABDE

2030

Plano de Desenvolvimento Sustentável

