

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**PARAGUAY**

**ACCESS TO FINANCING FOR INVESTMENTS IN PARAGUAY'S AGRICULTURE  
SECTOR  
(PR-L1170)**

**SECOND INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE  
FOR INVESTMENT PROJECTS (CCLIP) FOR FINANCING PRODUCTIVE  
DEVELOPMENT  
(PR-X1006)**

**LOAN PROPOSAL**

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4. [Agricultural productivity database](#)
5. [World Bank: Análisis de riesgo del sector agropecuario en Paraguay: identificación y priorización de los riesgos agropecuarios](#)
6. [Ministry of Agriculture and Livestock of Paraguay: "Expanded Agricultural Strategic Framework, Basic Guidelines," 2014. p. 44.](#)
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15. [Safeguard policy filter](#)

## ABBREVIATIONS

AFD	Agencia Financiera de Desarrollo [Development Finance Agency]
BCP	Banco Central de Paraguay [Central Bank of Paraguay]
CCLIP	Conditional Credit Line for Investment Projects
FIMAGRO	Financiamiento de Maquinarias Agrícolas [Financing for Agricultural Machinery]
IFIs	Intermediary financial institutions
MAG	Ministry of Agriculture and Livestock
MICREDITO	Crédito para Micro y Pequeñas Empresas [Credit for Microenterprise and Small Business]
PROCAMPO	Financiamiento de Proyectos de Inversión Ganadera [Financing for Livestock-raising Investment Projects]
PROCOOP	Financiamiento para Socios de Cooperativas de Producción [Financing for Members of Producers Credit Unions]
PROPYMES	Financiamiento para Pequeñas y Medianas Empresas [Financing for Small and Medium-sized Enterprises]
PRORREGADÍO	Financiamiento para Sistemas de Riego [Financing for Irrigation Systems]
SMEs	Small and medium-sized enterprises

## PROJECT SUMMARY

### PARAGUAY ACCESS TO FINANCING FOR INVESTMENTS IN PARAGUAY'S AGRICULTURE SECTOR (PR-L1170) SECOND INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE FOR INVESTMENT PROJECTS (CCLIP) FOR FINANCING PRODUCTIVE DEVELOPMENT (PR-X1006)

Financial Terms and Conditions				
<b>Borrower:</b>			<b>Flexible Financing Facility<sup>(a)</sup></b>	
Agencia Financiera de Desarrollo [Development Finance Agency] (AFD)			<b>Amortization period:</b>	25 years
<b>Executing agency:</b>			<b>Disbursement period:</b>	5 years
Agencia Financiera de Desarrollo [Development Finance Agency] (AFD)			<b>Grace period:</b>	5.5 years <sup>(b)</sup>
<b>Guarantor:</b>			<b>Interest rate:</b>	LIBOR-based
Republic of Paraguay			<b>Credit fee:</b>	<sup>(c)</sup>
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	<b>Inspection and supervision fee:</b>	<sup>(c)</sup>
<b>IDB (Ordinary Capital):</b>	30 million	100	<b>Weighted average life:</b>	15.25 years
<b>Total:</b>	30 million	100	<b>Currency of approval:</b>	U.S. dollars
Project at a Glance				
<b>Project objective/description:</b> The general objective of the program is to help boost the productivity of Paraguay's agriculture sector. The specific objective is to increase access to medium- and long-term financing for eligible agricultural sub-borrowers intending to acquire technologies, for productive investment purposes.				
<b>Special contractual conditions precedent to the first disbursement of the loan:</b> Approval and entry into force of the program <a href="#">Operating Regulations</a> , in accordance with the terms and conditions previously approved by the Bank (paragraph 3.3).				
<b>Exceptions to Bank policies:</b> The program requires a partial exception to the policy on guarantees required from the borrower (document GP-104-2), so the sovereign guarantee issued by the Republic of Paraguay will apply only to the financial obligations arising under the loan contract (paragraph 3.4).				
Strategic Alignment				
<b>Challenges:<sup>(d)</sup></b>	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>	
<b>Crosscutting themes:<sup>(e)</sup></b>	GD <input type="checkbox"/>	CC <input type="checkbox"/>	IC <input type="checkbox"/>	

<sup>(a)</sup> Under the terms of the Flexible Financing Facility (document FN-655-1) the borrower has the option of requesting changes to the amortization schedule, as well as currency, interest rate, and commodity conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail an extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

<sup>(c)</sup> The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the relevant policies.

<sup>(d)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(e)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and rationale

- 1.1 **Macroeconomic issues.** At the close of 2018, Paraguay posted real gross domestic product (GDP) growth of 3.7%, compared with 5.0% in 2017. In 2018, inflation was 3.2%, below the target set by the central bank (4.0±2%) and less than the figure for the previous year (4.5%). The central government deficit stood at 1.3% of GDP, in line with the ceiling set in the Fiscal Responsibility Act (1.5% of GDP) but higher than the figure in 2017 (1.1% of GDP). The estimated net borrowing requirement in 2019 is US\$600 million (1.5% of GDP). Real GDP is expected to increase 3.2% in 2019 and should reach 4.0% in the medium term. However, the Paraguayan economy is vulnerable to external shocks, such as the macroeconomic volatility of regional trading partners and price fluctuations for raw materials. Recent analyses conducted by the IDB show that in order to sustain the rapid growth of recent years, structural challenges in the areas of public management and institutions, productive diversification, infrastructure, and human capital must be addressed.<sup>1</sup>
- 1.2 **Agriculture sector in Paraguay.** The primary agriculture sector is an important driver of the Paraguayan economy. This sector accounts for 10.1% of GDP (agriculture for 7.9% and livestock for 2.2% in 2018) and produces around 62.4% of the country's exports. It employs 20.9% of the country's work force (24.5% of men and 15.4% of women, according to the 2017 Permanent Household Survey).
- 1.3 Part of the Paraguayan economy's volatility can be attributed to the dependence on the agriculture sector, which is in turn associated with climate factors and international prices. Although agricultural GDP grew by 4% in 2018 on the performance of staple crops and livestock, a decline of 0.5% is expected in 2019 as international prices fall.<sup>2</sup>
- 1.4 **Description of the agriculture sector.** From a socioeconomic standpoint, soybeans are the most important crop in Paraguay<sup>3</sup>, accounting for 87% of the total cultivated land area covering 3.51 million hectares, with a 3.8% increase in the 2017/2018 season. The crop segment of the agriculture sector consists of corn (1.07 million hectares, with a year-on-year increase of 13.8%) and wheat (0.43 million hectares, with a 70,000-hectare reduction). Together, these three crops account for nearly 80% of the value of crop production<sup>4</sup> and 49% of the value of crop and livestock production.
- 1.5 In all, 72% of the country's soybean farmers have less than 50 hectares of land (20,000 farmers) and contribute just 6% to national production.<sup>5, 6</sup> These farms

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<sup>1</sup> Paraguay: Rutas para el Desarrollo. IDB, 2018. Available at: <https://publications.iadb.org/es/paraguay-rutas-para-el-desarrollo>.

<sup>2</sup> Agriculture, which is highly dependent on soybeans, also has an impact on the transportation industry, 60% of which relies on this sector. UNDP (2010). Microfinance in Paraguay: Analysis of Supply and Demand.

<sup>3</sup> Ministry of Agriculture and Livestock (MAG): 2017-2018.

<sup>4</sup> If rice, mandioca, sesame, cotton, sugarcane, and vegetables are included, these crops account for 98% of agricultural production and more than 90% of the cultivated land area per year.

<sup>5</sup> Ministry of Agriculture and Livestock (2014). 2014 Yearbook of Environmental Statistics.

<sup>6</sup> Central Bank of Paraguay (2017). Economic Studies - Department of Real Sector Statistics.

cannot operate by exclusively growing that crop, so they diversify by growing other crops such as corn, wheat, sunflower, and canola, as well as by introducing livestock production activities, involving both larger animals such as dairy or beef cattle (semi-intensive and intensive ranching) and smaller livestock such as pigs, poultry, and other animals. This opens the door to the development of other products and the introduction of more sustainable practices.<sup>7, 8</sup> It should be noted that the value of wheat exports increased by 38% in 2018, due to increased prices and higher export volumes (7%). Meanwhile, the volume of corn exports slipped by 21% on stronger domestic demand for animal feed and ethanol.

- 1.6 The livestock subsector primarily produces beef, which generates 3.05% of GDP and involves 153,000 farmers with a herd of nearly 13.8 million head of cattle, 63% of which are located in the eastern part of the country and 37% in the western part. However, this herd has been shrinking since 2014 as livestock-producing regions have been hit by flooding caused by El Niño, price fluctuations, and low productivity, as reflected in the 14% offtake rate (compared with 23% in Argentina, 21% in Uruguay, and 19% in Brazil in 2016). Even so, exports have been increasing thanks to better handling techniques and sanitary standards throughout the production chain.
- 1.7 **Agriculture sector challenges.** The agriculture sector plays a significant role in the growth and stability of the economy as a whole. Nonetheless, its growth capacity is limited primarily by low levels of capitalization and investment, which in turn restrict its productivity growth.<sup>9</sup> The causes that have traditionally explained the sector's low productivity include: (i) the sector's low level of capitalization, stemming from a lack of farmer investments in productive assets, such as infrastructure, equipment, and other fixed assets;<sup>10</sup> and (ii) the low degree of incorporation and adoption of technology and agricultural technology models.
- 1.8 In particular, some of the identified challenges facing farmers in the abovementioned segments in Paraguay are:<sup>11</sup> (i) technology gaps between corporate producers and family farmers, which restricts mobility into higher-value

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<sup>7</sup> It should be mentioned that soybean farming in Paraguay is extremely vulnerable to climate change, both in the production stage and in the commercialization stage, given the limitations of irrigation infrastructure and transportation for exports.

<sup>8</sup> ECLAC (2014). La economía del cambio climático en Paraguay.

<sup>9</sup> De Olloqui and Fernández, Financiamiento del sector agroalimentario y desarrollo rural, IDB, 2017.

<sup>10</sup> Some of the identified investment needs are: for soybeans and corn, planting and harvesting equipment and storage and transportation infrastructure; for rice, water system improvements; for cotton and subsistence crops (cassava, sesame, sugarcane, soybeans, and vegetables), droughts and shortage of available water are the main risks resulting from weak infrastructure for water conservation, storage, and the need to lease harvesting equipment. The absence of long-term credit is more problematic for family farms because it makes it hard for them to pick up where they left off following an economic shock caused by drought, which forces them to reduce their investments and sell assets, increasing their risk of bankruptcy (World Bank, op. cit.). The United States Department of Agriculture and the Food and Agriculture Organization point to an equipment gap of 2.5 machines per 1,000 hectares in Paraguay with respect to Argentina.

<sup>11</sup> World Bank (2014). Análisis de riesgo del sector agropecuario en Paraguay: identificación y priorización de los riesgos agropecuarios.

activities and the commercialization of products;<sup>12</sup> (ii) absence of economies of scale, which makes it hard for farmers to improve their earnings, yields, and productivity; (iii) lack of investment in irrigation infrastructure that would mitigate the effects of drought;<sup>13</sup> (iv) limited supply of appropriate financial products for medium- and long-term investments and for agricultural insurance; (v) low levels of investment for access to commercial markets and in storage systems and the development of new export sectors; and (vi) lack of support for technology transfer and adaptation.

- 1.9 **Financing and investment capacity-building.** Access to medium- and long-term financing is critical for increasing investments, closing technology gaps, and boosting the productivity of rural producers.<sup>14</sup> Access to financing for production purposes facilitates investment in equipment and infrastructure, diversification to other crops, and the adoption of new technologies, enhanced inputs, and technical-production capacities, which all translate into increased earnings and productivity for farms. In particular, access to credit is the key determinant in decisions to invest in production assets and in the volume of investments.
- 1.10 For this reason, eliminating restrictions on access to credit should increase the number of farmers making investments as well as the size of the investments they make, thereby helping to break the cycle of low investment, low productivity, low growth, and small scale in this sector. In addition, studies focused on agricultural value chains<sup>15</sup> show that lack of access to medium- and long-term financing for businesses that participate in industrialization, commercialization, and related

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<sup>12</sup> The role of the small farmer is simply to provide land for the crop expansion of medium-sized and large operations in this area, who have greater investment capacity. Industries perceive the cost of buying production from small farmers to be high.

<sup>13</sup> Paraguay loses around US\$237 million per year on average (5.4% of agricultural GDP) and has lost as much as US\$1 billion due to production risks such as drought and pests that could be managed in agricultural value chains, as well as through production that does not depend on the forest frontier. The United States Department of Agriculture has identified a 12% gap between Paraguay and Argentina with respect to irrigation-ready land. Family-based agriculture usually relies on community wells, running water systems, and natural bodies of water, whereas medium-sized and large operations use water from artesian wells or springs, reservoirs, and stock tanks, which are key assets in drought years. World Bank (2014). *Análisis de riesgo del sector agropecuario en Paraguay: identificación y priorización de los riesgos agropecuarios*.

<sup>14</sup> Access to finance can provide timely resources to purchase inputs, technologies, management and production models, etc. (International Finance Corporation, 2012, *Innovative Agricultural SME Finance Models*). Access to financing through these investments would have an effect on productivity. Mexico experienced positive impacts from agricultural credit issued through Agencia Financiera de Desarrollo [Development Finance Agency], in terms of productivity measured as sales per hectare, in both working capital (32.6%) and fixed assets (23.5%) (IDB, 2019). In Peru, access to credit could boost agricultural productivity by 26% (Guirkingner and Boucher, 2008), while in China it could be as high as 31.6% (Dong et al., 2010). Sidhu et al. (2008) demonstrate the positive relationship between credit, investment, and productivity in India (*Dynamics of Institutional Agricultural Credit and Growth in Punjab: Contribution and Demand-Supply Gap*). Uaiene et al. (2009) perform an empirical analysis of the relationship between agricultural credit and technology, showing that farmers with access to credit are more likely to adopt technology. Foster and Rosenzweig (2010) show that limited credit plays a significant role in the decision to delay technology adoption, which is the leading determinant of productivity growth.

<sup>15</sup> See A. Calatayud and J. A. Ketterer, *Integrated Value Chain Risk Management*, Technical Note 922, Washington D.C., Inter-American Development Bank, 2016; and J. Bueso-Merriam, F. Demichelis, M. C. Fernández Díez, David Giuliodori, Alejandro Rodríguez, and R. Stucchi, "El impacto del Programa de Crédito para el Desarrollo de la Producción y el Empleo en la Provincia de San Juan," Discussion Paper 485, Washington D.C., Inter-American Development Bank, 2016.



services for the agriculture sector significantly hinders the ability of these businesses to make the infrastructure and technology investments that will help improve their productivity.

- 1.11 **Access to medium- and long-term credit.** Access to medium- and long-term financing for Paraguay's agriculture sector is limited by factors such as: (i) the intrinsic risk in the sector due to the effects of climate variability and price volatility;<sup>16</sup> (ii) the strong geographic dispersion of the customer base in rural areas, which generates high transaction and operating costs; and (iii) the maturity mismatch in the banking sector, which reduces the availability of long-term credit. In addition, small and medium-sized farmers face additional restrictions due to: (i) informality in the land tenure system for these farmers,<sup>17</sup> which impedes their ability to provide collateral;<sup>18</sup> and (ii) the absence of a credit history for these farmers, which would help assess their risk.
- 1.12 The supervised financial system in Paraguay is comprised of 17 banks and 13 non-bank financial institutions.<sup>19</sup> The assets of these banks as of December 2018 (US\$21.6 billion) accounted for 95.5% of the supervised system's total assets. As of December 2018, the loan portfolio was concentrated in agricultural activities, but mostly in seasonal loans, with little financing available for investments. A total of 34.1% of bank credit goes to agriculture, livestock, and agribusiness, while 21.5% corresponds to commercial loans, 12.6% to consumer loans, 8.7% to industry, and 4.8% to services.<sup>20</sup> However, 80% of the loan portfolio is in short-term loans (up to one year), 12% is for 1- to 3-year loans, and the remainder (approximately 8%) in loans with terms of over three years.<sup>21</sup>
- 1.13 The banks are the main institutions responsible for financing the sector (96.5% in 2018). At the close of 2018, the balance of agricultural loans issued by the financial system was 14.8043 trillion Paraguayan guaraníes, or 6.9% more than at the close of 2017. However, the preponderance of farm loans at the banks shrank when credit in other sectors expanded (from 19.5% in 2017 to 16.9% in 2018). This was also the case with farm loans at financial institutions (from 17.8% in 2017 to 10.1% in 2018).
- 1.14 In general, credit grew by nearly 26% between 2005 and 2015 alongside increases in dollar-denominated agricultural loans and higher international prices, mainly for soybeans and beef. However, recent price drops point to a contraction in credit

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<sup>16</sup> MAG, 2008. op. cit.

<sup>17</sup> Ibid. Only 47% of all farms have a permanent title, 22% have a provisional title, 8% are leased or farmed on a sharecropping or tenant-farming basis, with the remainder under other types of landholding arrangements

<sup>18</sup> Ibid. Problems in land titling make it difficult to use land ownership as loan collateral.

<sup>19</sup> Paraguay's Superintendency of Banks, which is attached to the Central Bank of Paraguay, regulates and oversees most of the financial system. Non-bank financial institutions differ from banks in that they have lower capital requirements and do not offer checking accounts or conduct foreign trade transactions.

<sup>20</sup> Statistical and Financial Bulletin, December. Central Bank of Paraguay, 2018.

<sup>21</sup> This is partially due to the fact that the funding structure of the banking sector is highly concentrated in short-term deposits (sight deposits and checking accounts account for 60% of the total). This concentration of short-term deposits leads to a liquidity mismatch (90-day liabilities are higher than 90-day assets), generating a system-wide mismatch of US\$4 billion.

- and are reflected in a higher rate of nonperforming loans.<sup>22</sup> The rate of nonperforming loans in the banks closed at 2.25%, an increase of 0.02 percentage points with respect to the end of 2017. Meanwhile, the rate at financial institutions was 8.03%, an increase of 0.2 percentage points compared with December 2017.
- 1.15 The demand for credit should result in future growth in capital assets,<sup>23</sup> given the higher rate of agroindustrial development for using processed seeds to make flour and oils, as well as for other purposes such as biofuels and livestock feed. However, family farms have less access to credit. Of the total number of noncorporate soybean farmers, only 17.7% are served by credit institutions and just 14% of farms receive technical assistance. Demand for credit to increase scale, improve processing and commercialization, and acquire new technologies is also being seen for other crops.<sup>24</sup> In addition, the most recent Global Findex data available for Paraguay on financial inclusion by gender shows that there is a gap in loans issued to men (32.4%) and to women (26.7%) and in the use of bank accounts for business purposes (6.8% for men compared with 4.6% for women).<sup>25</sup>
- 1.16 In short, the financial system does not sufficiently meet the needs of corporate or family farmers for productive credit for investment purposes, i.e., loans with terms of more than one year. Access to medium- and long-term credit is a necessary condition for improving yields and earnings, through investments in processing, commercialization, transportation, and storage infrastructure, management of water and irrigation infrastructure to reduce vulnerability to climate change, pricing information systems, and other investments, as well as for improving the scale and bringing family farmers into the marketplace.
- 1.17 **Rationale.** One of the reasons for the low productivity of the agriculture sector in Paraguay is the lack of access to medium- and long-term financing that would facilitate sustainable productive investment and technology change for large and small farmers alike.<sup>26</sup>
- 1.18 Because the Paraguayan government is aware of the significance of this and other problems in the agriculture sector, it has established long-term goals for agricultural and rural development in the country, which it set out in 2014 in the Paraguay 2030 National Development Plan.<sup>27</sup> The strategy on regionalization and productive diversification is described in the pillar for “inclusive economic growth.”

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<sup>22</sup> IMF. (2016). IMF Country Report 16/117. Paraguay. Selected issues.

<sup>23</sup> BMI. (2017) Paraguay Agribusiness Report, Q3 2017.

<sup>24</sup> Using resources from technical cooperation project ATN/OC-15604, the Bank supported AFD in the design and implementation of a methodology to request financing for new technologies for value chains, which was applied to the dairy value chain (“[Nuevas tecnologías digitales en la promoción del sector agropecuario: Propuestas para su desarrollo y adopción en la cadena láctea de Paraguay](#)”).

<sup>25</sup> However, it should be noted that this is 2011 data, so the current status of the gap in the country is unknown. This makes it difficult to design public policies aimed at closing the gap. Moreover, the economic statistics currently available in Paraguay do not typically look at gender when information is collected.

<sup>26</sup> Although there are multiple factors behind the total factor productivity and competitiveness indicators, the importance of developed financial systems has been well documented. See the IDB’s Sector Framework Document on Support to SMEs and Financial Access/Supervision (2014) and Beck et al. (2000), “Finance and the sources of growth,” *Journal of Financial Economics* 58 (12), 261-300.

<sup>27</sup> See: <http://www.stp.gov.py/pnd/wp-content/uploads/2014/12/pnd2030.pdf>.

The objective of this strategy is to tap the comparative advantages of the country's different regions, make investments, and activate value chains that include micro, small, and medium-sized enterprises.

- 1.19 In this context, and in keeping with its public policy targets, the government of the Republic of Paraguay has requested the Bank's support for the approval of a second operation under the Conditional Credit Line for Investment Projects (CCLIP) for Financing Productive Development, PR-X1006, with Agencia Financiera de Desarrollo [Development Finance Agency] (AFD) as the borrower and executing agency. The objective of the CCLIP is to help boost productivity in Paraguay by providing access to medium- and long-term credit for productive investment.
- 1.20 Although the first program under the CCLIP ([3616/OC-PR](#)) was approved in December 2015, it only received congressional ratification in April 2018 and became eligible for the first disbursement later that year in November. Since then, the pace of execution has been satisfactory, and 60% of the loan has been disbursed as of October 2019. Execution of the loan is expected to conclude in the first half of 2020. This points to the strong level of demand in the sector and its relevance to AFD, which has placed 22% of its portfolio in investments in the agriculture and livestock segments, in equal proportion, according to 2018 data. The proposed operation will help expand the supply of financing that AFD is able to offer to the sector, in order to meet existing demand (see paragraph 1.26).
- 1.21 Changes in the agriculture portfolio over time indicate average year-on-year growth of 23% between 2016 and 2018. In addition, the rate charged by AFD has been decreasing and is currently at 5%, which also reflects a change in the rates charged by financial institutions (6.9% as at December 2018), a 8.1% decline from 2016 to 2018. The average term of a loan in the agriculture portfolio is around seven years.
- 1.22 **Agencia Financiera de Desarrollo.** AFD is an autonomous and independent public entity and the only second-tier public bank in the Republic of Paraguay.<sup>28</sup> It is the sole executing agency for loans and grants that provide financing for development programs and projects, with the financial intermediation and guarantee of the State. AFD is also the only channel for loans from the public sector to public and private first-tier intermediary financial institutions (IFIs), credit unions supervised and regulated by Paraguay's National Credit Union Institute, and other entities established by law.<sup>29</sup> In short, AFD is a second-tier bank that promotes economic development and job creation by channeling resources targeted to investment projects and loans for the general public through IFIs.
- 1.23 As of December 2018, AFD had US\$917 million in assets, with a loan portfolio totaling US\$744 million (81% of its assets).<sup>30</sup> AFD does not take deposits; it is funded by US\$677 million in financial obligations, primarily bonds (76%), multilateral loans (24%), and retained earnings and capitalizations. Although the

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<sup>28</sup> Congress of the Republic of Paraguay: Law 2640, 27 July 2005.

<sup>29</sup> Congress of the Republic of Paraguay: Law 3330, 18 October 2007.

<sup>30</sup> See [AFD Balance Sheet](#).

- agency already plays a relevant role, it holds just 4% of total system assets so there is room to increase its assets for the benefit of Paraguay's development.
- 1.24 At the close of 2018, 23% of AFD's loan portfolio was concentrated in the agriculture sector, surpassed only by the real estate sector which comprises 38% of its portfolio. This distribution has remained relatively unchanged over the last five years (23% vs. 43% in 2017, 26% vs. 43% in 2016, 30% vs. 41% in 2015, and 36% vs. 35% in 2014). This reflects the importance of medium- and long-term financing in the sectors that the Bank has been supporting through AFD since the CCLIP (PR-X1001) was approved (see paragraph 1.30). That operation made it possible to issue more than 4,000 subloans, around 60% of which were for medium- and long-term productive investments, with the remainder used to finance construction and housing improvements.
- 1.25 The proposed program is the second operation under CCLIP PR-X1006 (see paragraph 1.30) and will provide a line of funding to AFD so that it can continue to expand credit in the agriculture sector and achieve the government's objectives. It complements the first CCLIP program by expanding funding for AFD's portfolio of credit products for the agriculture sector that it has been financing and supports productivity by providing financing to farmers (see paragraph 1.20), primarily benefiting: (i) farmers, for the purchase of farm machinery and tools and the construction of bulking centers (41.5%); (ii) members of production cooperatives, for investment in breeding stock and genetic improvement, silvopastoral management, and machinery and infrastructure improvements (27.7%); and (iii) livestock operations, for investment in breeding stock and genetic improvement (27.0%).
- 1.26 **Estimate of potential demand.** According to FAO figures, investment demand for gross fixed capital formation is estimated at nearly US\$300 million per year. In turn, agricultural investments reported by the Superintendency of Banks at the Central Bank of Paraguay in its statistical bulletin stand at nearly US\$2.4 billion at the end of the first quarter of 2019, for both working and fixed capital. Of this US\$2.4 billion, the balance of AFD's portfolio accounts for approximately 12% of the entire financial system (US\$280 million), which is a small percentage of existing demand.<sup>31,32</sup>
- 1.27 **The Bank's experience and lessons learned in the sector.** It is important to note that the Bank has gained extensive experience in productive financing for the region's agriculture sector, through many different operations with different public financial institutions in the region. Lessons were learned, for example, from the Program for the Financing of Investment Projects, Productive Restructuring and Export Development (Bancóldex II) ([2193/OC-CO](#)), which made it possible to continue meeting the financing needs for investment of the real sector of the economy, thereby demonstrating the countercyclical role that these types of operations can play in reassuring the market. Along these lines, the design of this

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<sup>31</sup> See [Analysis of Demand](#).

<sup>32</sup> In terms of potential demand, the IDB has estimated credit opportunities for investment in the dairy value chain, based on the needs and investment capacity of dairy farmers, which resulted in an estimated total amount of technology loans of more than US\$78 million, assuming an investment of 25% of the dairy farms in the industrial dairy chain. See: <https://publications.iadb.org/es/publicacion/14113/nuevas-tecnologias-digitales-en-la-promocion-del-sector-agropecuario-propuestas>.

operation includes monitoring indicators for observing trends and changes in the system in terms of loan maturities and delinquency rates.

- 1.28 In the area of rural agricultural financing, lessons were learned from the program Rural Financing in Mexico ([2656/OC-ME](#)) in terms of the Bank's importance and value-added in medium- and long-term funding for the structuring of lending strategies to generate environmental benefits and promote investment in rural areas. In particular, this program pointed up the feasibility of financing projects with a positive environmental impact and investments in fixed assets by rural productive units in highly marginalized areas, by giving them access to medium- and long-term credit, and demonstrated an effect that could be attributed to the program.
- 1.29 These experiences have been used to develop this proposal and respective annexes. The main lesson learned from the execution of operations with the rural sector, particularly operation [2656/OC-ME](#), is the need to create long-term financing opportunities for rural farmers. From a broader perspective, operations such as the aforementioned [2193/OC-CO](#) demonstrated the need to have financing instruments that play a countercyclical role, especially for small and medium-sized enterprises.
- 1.30 **The Bank's experience with AFD.** The Bank has had a longstanding relationship with AFD ever since it was founded through the loan supporting the Legal Reform of the Second-tier Public Financial System (operation 1682/OC-PR). AFD has served as the executing agency for several different Bank projects: (i) Expanded CCLIP for Investment Projects to Provide Financing to AFD (PR-X1001), under which individual operations for a total of US\$150 million were approved ([1968/BL-PR](#), [2150/BL-PR](#), [2639/BL-PR](#), [2640/OC-PR](#)); (ii) the Financing Program for Paraguayan SMEs ([3354/OC-PR](#)), to finance small and medium-sized enterprises in Paraguay; (iii) the Project for the Development of the Housing Finance Market in Paraguay ([3853/OC-PR](#)), which provides financing to drive supply and demand for housing; and (iv) the first operation ([3616/OC-PR](#)) under CCLIP PR-X1006, currently in execution, which this second operation is part of. In addition, through the Technical Cooperation Project to Support the Institutional Strengthening of AFD (ATN/OC-15778-PR), the Bank provided support for the institutional improvement of AFD in accordance with its Strategic Plan 2016-2018 by providing for changes to its organizational and regulatory structure, for the purpose of increasing its impact in terms of economic development, infrastructure, and job creation in Paraguay.
- 1.31 AFD recently requested institutional strengthening support for the use of digital tools and better oversight and evaluation of its programs, with its participation in a regional cooperation program that will help strengthen it through tools to capture, use, and process digital information and systems to monitor and evaluate its projects. This is an innovative aspect for this second operation under the CCLIP, as it will help AFD increase the efficiency, effectiveness, and transparency of its program management activities. The technical cooperation project will strengthen AFD via methodological resources and enhanced capacities. In terms of methodologies, the project will include: (i) the review and identification of standardized monitoring and evaluation indicators by sector of activity, mandate, and type of institution (first or second tier); (ii) analysis of existing administrative

- data at AFD, whether captured by traditional means such as credit files or by nontraditional means (digital), analysis of the characteristics of such information in terms of standardization of recording, digitizing, compatibility and comparability, both domestic and international; (iii) analysis of secondary sources of potential cross-referencing of administrative data; (iv) review of the monitoring and evaluation models used for different purposes and economic, financial, and development targets, and the way they are integrated into the processes and provide continuous information; (v) review and identification of cases of good practices in the region and applicable methodologies by subject matter; and (vi) pilot for the development of a virtual platform to collect and manage information, which, depending on the access level (IDB, AFD, IFIs), will make it possible to select indicators from drop-down lists, add information periodically, and obtain customized reports, tables, and figures. Lastly, there will be a diagnostic assessment of AFD's monitoring and evaluation systems and a proposal or plan for access and use of administrative data, with economic, financial, and development evaluation methodologies and techniques that are applicable by type of project and sector, which will include definitions of the advantages in terms of improving AFD's efficiency and effectiveness and the design of a virtual data platform.
- 1.32 In the area of capacity-building, the following activities can be expected: (i) review of internal monitoring and evaluation capacities in terms of staff and resources and identification of synergies between the areas that generate and use information, with the creation of shared information spaces; (ii) support for the identification of national agendas, regulatory requirements, and creation of interagency cooperation agreements and arrangements to share and standardize information; (iii) formation of subject-specific work groups for all participating public development banks; (iv) creation of a regional virtual library organized by subtopics as a source of references and documentation of cases; (v) creation of collaborative documents that incorporate demands from public development banks for knowledge and encourage discussions; and (vi) support in the design and systematization of monitoring and evaluation following a roadmap developed in conjunction with AFD. Lastly, training tools will be available to the public development banks to align incentives and gradually build an enhanced information system.
- 1.33 **Complementarity with other IDB Group interventions.** The proposed operation will complement the work of IDB Invest, which has been providing resources to first-tier IFIs to finance the agriculture sector in Paraguay, through the following operations that are currently in execution: (i) SME Financing Agreement with Bancop ([12266-01](#)) to finance SMEs in the productive sector; and (ii) Banco Regional Agribusiness Financing Partnership ([12416-01](#)) to finance subprojects in businesses in the agricultural, agroindustrial, and livestock sectors. It is also expected to build synergies with the IDB Invest operation being designed to provide medium- and long-term financing to SMEs in the productive sector, with an emphasis on the livestock sector. The operation has synergies with a CCLIP in preparation by the IDB, aimed at enhancing the productivity of the agriculture sector through investments that will improve the Paraguayan government's ability to provide quality public agricultural services to farmers, as well as through



targeted investments that will support groups of farmers with high productive potential.

- 1.34 **Lessons learned with AFD.** The lessons learned from the execution of these operations in the area of productive financing show that there is: (i) an opportunity to improve the collection of data to monitor and evaluate the impact of the programs being executed by the Bank and AFD; and (ii) an opportunity to improve institutional capacities to evaluate the development impact of AFD activities on end beneficiaries. The importance of these lessons to AFD and their impact on achieving development outcomes is why AFD requested support for institutional strengthening with its participation in a regional technical cooperation project (see paragraph 1.31).
- 1.35 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the following development challenges: (i) social inclusion and equality, by addressing the agricultural production of small farmers, as well as geographically isolated populations; and (ii) productivity and innovation, by providing sustainable financing for investment in production and technological change.<sup>33</sup> The program is aligned with the Corporate Results Framework 2016-1019 (document GN-2727-6), through the following indicators: (i) micro, small, and medium-sized enterprises financed; and (ii) farmers with access to better agricultural services and investments. It is also aligned with the Sector Strategy on Institutions for Growth and Social Welfare (document GN-2587-2) under the component for providing access to financial services to the majority. The program is also consistent with the Sector Framework Document on Support to SMEs and Financial Access/Supervision (document GN-2768-7), particularly the link between access to financing and increased levels of productivity and the need to develop finance policies for productive development. Likewise, the program is consistent with the Sector Framework Document on Agriculture and Natural Resources Management (document GN-2709-5), in terms of the need to strengthen rural financing through investments to boost productivity. Lastly, the program is aligned with the Country Strategy with Paraguay 2019-2023 (document GN-2958), through the strategic area of integration and diversification with respect to its strategic objective of enhancing financing for investment, and it is aligned with the priority productive development sectors, particularly the financial sector in order to promote the financing of investments through the financial system. It is included in the Update of the Annex III of the 2019 Operational Program Report (document GN-2948-2). It is also aligned with the Paraguay 2030 National Development Plan, with priorities that encompass inclusive economic growth, poverty reduction, and social development.

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<sup>33</sup> Although the program is not aligned with the crosscutting theme of climate change and environmental sustainability, it will support AFD by providing technical assistance to identify projects and activities in its current portfolio that have environmental benefits or could have them if they were implemented under certain conditions. These inputs will be used to recommend guidelines so that future AFD operations with the Bank are aligned with that crosscutting theme. It should be mentioned that the IDB has successfully engaged in similar holistic exercises with various public development banks, ranging from a portfolio analysis to the structuring of green product lines.

## **B. Objectives, components, and cost**

- 1.36 **Objectives.** The general objective of the program is to help boost the productivity of Paraguay's agriculture sector. The specific objective is to increase access to medium- and long-term financing for eligible agricultural sub-borrowers intending to acquire technologies for productive investment purposes.
- 1.37 **Sole component. Improved access to finance (US\$30 million).** The program will be structured around a single component on the provision of medium- and long-term credit (defined as having a term of more than one year). To this end, US\$30 million in resources will be provided to eligible agricultural sub-borrowers engaged in production, processing, and commercialization activities.
- 1.38 **Eligible beneficiaries and product lines.** Eligible beneficiaries are sub-borrowers in the agriculture sector, whether classified as family or corporate farms, including members of production cooperatives. To qualify as beneficiaries, sub-borrowers must meet the eligibility criteria established in the program's [Operating Regulations](#) and in the documents describing AFD's eligible product lines.<sup>34</sup> In keeping with the program's objective, the resources may be used to finance investments for agricultural sub-borrowers using the resources for various activities including but not limited to: the procurement of technology, infrastructure, irrigation, equipment, transportation, storage, bulking, purchase of livestock, and any other purpose related to enhancing agricultural productivity.
- 1.39 **Eligible intermediary financial institutions (IFIs).** Eligible IFIs are those that meet the risk management criteria established by AFD in its [Credit Regulations](#) and product manuals that comprise the program's [Operating Regulations](#).<sup>35</sup> The resources will at all times be channeled through first-tier IFIs that have been identified and previously evaluated by AFD. At present, AFD has 35 eligible IFIs (14 banks, 6 financial institutions, and 15 credit unions).

## **C. Key results indicators**

- 1.40 This second CCLIP operation is expected to increase agricultural output as a result of the support provided by the program. The expected outcomes are: (i) increase in the provision of productive inputs for farms supported by the program; and (ii) better financing terms and conditions for productive investment in the agriculture sector. To this end, the following will be taken into account: changes in the medium- and long-term loan amounts originated by AFD for the productive investment of farmers; the terms of these loans, which are expected to continue to

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<sup>34</sup> The eligible product lines are: (i) [FIMAGRO](#), for farmers and suppliers of agricultural machinery and tools; (ii) [MICRÉDITO](#), for microenterprises and small businesses, as well as independent professionals; (iii) [PROPYMES](#), for small and medium-sized enterprises; (iv) [PROCAMPO](#), for livestock operations; (v) [PRORREGADÍO](#), for agricultural operations wishing to install irrigation systems; (vi) [PROCOOP](#), for members of farm credit unions; and (vii) any other line that has the same objective of providing medium- or long-term agricultural credit used to boost productivity in a sustainable manner, in order to modify or replace those product lines, including lines specifically created for this program.

<sup>35</sup> In regard to the main eligibility criteria for financial intermediaries, it should be noted that AFD only works with institutions with a minimum rating of BB- based on the rating obtained by using the methodologies established by AFD. This same rating determines AFD's maximum exposure to each financial intermediary, with respect to its adjusted equity. There are no limits in terms of the financial intermediary's size or geographic coverage.



be more than four years with program support; and an analysis of nonperforming loans with respect to what is observed in the entire banking system.

- 1.41 **Economic analysis.** The economic evaluation identifies the flows of income and expenditure in a typical enterprise financed with loans originated by the program or, as the case may be, by any private resources of the borrowers. Calculating these flows, with a 12% discount rate, yields a return of US\$9.8 million and an internal rate of return of (IRR) of 24%. In addition, the sensitivity analysis continues to show positive results in the event of various impacts such as: (i) increased production costs; (ii) decreased selling prices; (iii) increased investment costs; and (iv) higher percentage of failed loans (see [Economic analysis](#)).

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 The proposed second operation under CCLIP PR-X1006 will consist of a global credit loan to AFD for US\$30 million, charged to the Bank's Ordinary Capital resources, with the sovereign guarantee of the Republic of Paraguay to back the borrower's financial obligations. No counterpart contribution is anticipated. The operation has a disbursement period of five years.

**Table 1. Disbursement schedule (US\$ million)**

Sole component	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB (Total)	2.0	7.0	7.0	7.0	7.0	30.0
Percentage (%)	6.68	23.33	23.33	23.33	23.33	100.0

- 2.2 **Fulfillment of eligibility criteria for the second operation under the CCLIP.** As stated in the proposed modifications to the CCLIP (document GN-2246-9), this operation meets the eligibility criteria inasmuch as: (i) the operation is included in the sector and component of CCLIP PR-X1006; (ii) the operation is included in the Update of the Annex III of the 2019 Operational Program Report (document GN-2948-2); (iii) AFD is the same executing agency as in the first operation (3616/OC-PR), has demonstrated satisfactory performance, and its financial and institutional soundness has been verified by the Bank. In addition, in the case of the first operation: (iv) satisfactory progress has been made; (v) 60% of the total loan amount has been disbursed; (vi) AFD has met the contractual conditions of the loan contract and the Bank's policies on disbursements and the procurement of goods and services; and (vii) the quality of financial and operations reports are acceptable in terms of the project's financial administration and operational control.

### B. Environmental and social risks

- 2.3 As a financial intermediation operation, in accordance with the Bank's Environment and Safeguards Compliance Policy (Operational Policy OP-703), Directive B.13, it cannot be classified ex ante. The appropriate environmental and social due diligence was conducted pursuant to Directive B.13, by analyzing the potential environmental and social risks of the eligible subprojects and AFD's capacity as executing agency to manage these risks. Based on the results of such due diligence, this operation is considered as having a medium financial intermediation

- risk (FI-2). The majority of the subprojects to be financed will be category “C” operations, but some of them may be category “B.” Category “A” subprojects will not be eligible for financing.
- 2.4 The potential social and environmental risks identified for the subprojects that are eligible to be financed with program resources are low to medium and will be managed by using the environmental and social risk management system that will be included in the program’s [Operating Regulations](#), whose approval by the IDB is a condition precedent to the first disbursement of the loan. The specific requirements can be found in the [environmental and social management report](#).
- 2.5 AFD has developed environmental and social requirements for its previous operations with the Bank, which will continue and will be adapted for this operation, to provide better coverage and monitoring. The portfolio of previous operations has been evaluated in accordance with the terms requested by the Bank on this subject, and the requirements were met as specified.

**C. Other key issues and risks**

- 2.6 **Fiscal sustainability risks.** This is considered a medium-level risk. Exogenous macroeconomic or climate shocks may have an adverse impact on international commodity prices. Therefore, the intermediary financial institutions may cut back on the available medium- and long-term credit due to a higher perceived risk regarding end beneficiaries. The program will specifically act as a countercyclical mechanism to mitigate this risk, along with AFD’s ongoing supervision of the IFIs in accordance with its corporate governance practices and the requirements in the program’s Operating Regulations.
- 2.7 **Development risk.** This is considered a medium-level risk. It relates to the possibility that demand for the program’s resources may decline due to nonmacroeconomic exogenous factors. It should be noted that the Bank’s prior experience with AFD, particularly the first program under CCLIP PR-X1006, shows that the demand for medium- and long-term resources for productive purposes holds firm even in periods of crisis. The business and operational management of AFD in terms of the providing the resources acts as a mitigating factor for this risk.
- 2.8 **Sustainability of results.** Because of its limited amount, this program does not constitute a definitive solution to the problem of providing financing for investments in Paraguay’s agriculture sector. What the program does do is establish channels in the private financial system through IFIs, which makes it possible to expand this credit line, based on healthy banking practices and the existence of long-term funding. At the moment, this funding is provided by the government, but in the future, if the sound performance of these portfolios is consolidated, the private sector could totally or partially replace the source of these funds.

**III. IMPLEMENTATION AND MANAGEMENT PLAN**

**A. Summary of implementation arrangements**

- 3.1 **Borrower and executing agency.** The borrower will be Agencia Financiera de Desarrollo [Development Finance Agency] (AFD). The Republic of Paraguay will be the guarantor of the borrower’s financial obligations under the loan contract (including the payment of principal, interest, and other fees) and will not cover the

- borrower's affirmative covenants. AFD will serve as executing agency for the administration, execution, control, and monitoring of the operation's resources.
- 3.2 **Execution and administration.** The Bank will provide resources to AFD, which, as a second-tier bank, will make them available to intermediary financial institutions (IFIs), which will onlend the proceeds to achieve the operation's objectives, as stipulated in the program's [Operating Regulations](#). AFD will execute the project under its current organizational structure. The participation of the IFIs, as well as the eligibility of the sub-borrowers and beneficiaries, will be based on AFD's current policies, and will be set out in the program's Operating Regulations.
- 3.3 **Special contractual conditions precedent to the first disbursement. A special contractual condition precedent to the first disbursement of the loan will be the approval and entry into force of the program's [Operating Regulations](#), in accordance with the terms and conditions previously approved by the Bank.** This condition is essential because the Operating Regulations will establish the guidelines, procedures, and coordination mechanisms that will guide implementation of the project.
- 3.4 **Partial exception to the policy on guarantees required from borrowers (document GP-104-2).** A partial exception to the policy on guarantees required from borrowers (document GP-104-2) has been requested, so the sovereign guarantee issued by the Republic of Paraguay will apply only to the borrower's financial obligations (including the payment of principal, interest, and fees) under the loan contract but will not cover the borrower's affirmative covenants. This request is justified because the Paraguayan government has indicated that it can only guarantee the borrower's financial obligations associated with servicing the loan. It should be noted that AFD is a solvent entity with solid financial and management capacity to meet the obligations that it will assume vis-à-vis the Bank.<sup>36</sup>
- 3.5 **Disbursements and execution period.** The project resources will be committed and disbursed within 60 months from the effective date of the loan contract. Disbursements, advances, and the respective supporting documentation will comply with the Financial Management Guidelines for IDB-financed Projects (document OP-273-6). Specifically, the loan proceeds will be disbursed in the form of an advance of funds, reimbursements, or direct payments upon request by the borrower, as agreed with the Bank, in order to meet the liquidity needs required to execute the project.
- 3.6 **Financial statements.** AFD will submit annual audited financial statements for the project, in accordance with the terms of reference agreed upon with the Bank, and an annual audited financial statement for the agency. These statements will be

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<sup>36</sup> Source: Treasury Legal Office of the Ministry of Finance based on Law 1.535/1999 on Public Financial Management. Counterparts in Paraguay have stated that the affirmative covenants associated with execution of the loan are outside the legal authority of government officials of the Republic of Paraguay. Pursuant to Article 1 of Law 2640/2005 (as expanded by Law 3330/2007), AFD is an independent, autonomous entity with legal status and its own equity capital; a full guarantee by the Republic of Paraguay covering AFD's affirmative covenants would be contrary to this autonomy. It should be noted that the Bank's Board of Executive Directors has authorized partial exceptions to the scope of the aforementioned policy in other operations, such as 2236/OC-BR (2010), 3866/OC-BR (2016), 3271/OC-ES (2014), 4439/OC-CO (2017), and 4568/GN-PR (2018).

issued by an eligible audit firm acceptable to the Bank and will be submitted within 120 days after the close of the fiscal year. The project's final audited financial statement will be submitted within 120 days after the date of the last disbursement.

- 3.7 **Audit.** The project will be audited by a higher oversight authority or eligible independent audit firm acceptable to the Bank, following the procedures set out in the new audit guidelines currently in effect. It should be noted that previous projects with AFD have been audited and certified with no significant observations.

**B. Summary of arrangements for monitoring results**

- 3.8 **Reporting.** Execution of the project will be monitored through semiannual progress reports submitted by the executing agency within 60 days after the end of each six-month period. The reports will be based on the commitments set out in the Results Matrix and the financial progress reports indicated in the general conditions of the loan contract. In addition, the semiannual progress reports will include monitoring and updates to the project's risk matrix.

- 3.9 **Evaluation.** The evaluation of the project's outcomes will include: (i) an ex post cost-benefit analysis of income and expenditure flows arising from the intervention; (ii) the respective analysis of changes in the portfolio relevant to this intervention; and (iii) an impact evaluation, in accordance with the evaluation commitments agreed upon in the first program under the CCLIP (see [monitoring and evaluation plan](#)). The executing agency will be responsible for compiling the information required to evaluate the program. Evaluation and monitoring costs will in all cases be covered by AFD. The impact evaluation is described in the [monitoring and evaluation plan](#) and involves the use of a quasi-experimental method to identify a control group (regression discontinuity, and alternatively, if the available information does not allow use of the first method, the propensity score matching technique will be used). The objective will be to determine how having access to credit funded by AFD through commercial banks using resources under this program affects the beneficiaries' per-hectare production, with respect to comparable productive units that were not beneficiaries of program resources. The underlying hypothesis is that the relaxation of credit restrictions as a result of the funds provided by AFD using program resources will result in increased productivity.

- 3.10 **Information.** AFD will compile, store, and retain all information, indicators, and parameters, including annual plans and the final evaluation, that are needed to prepare the project completion report. It is important to note the expected collaboration of a group of IFIs relevant to this intervention with which the IDB has worked in the past to collect information on the portfolio and end beneficiaries of the program.

Development Effectiveness Matrix		
Summary		
<b>I. Corporate and Country Priorities</b>		
<b>1. IDB Development Objectives</b>	Yes	
Development Challenges & Cross-cutting Themes	<ul style="list-style-type: none"> <li>-Social Inclusion and Equality</li> <li>-Productivity and Innovation</li> </ul>	
Country Development Results Indicators	<ul style="list-style-type: none"> <li>-Micro / small / medium enterprises financed (#)*</li> <li>-Farmers with improved access to agricultural services and investments (#)*</li> </ul>	
<b>2. Country Development Objectives</b>	Yes	
Country Strategy Results Matrix	GN-2958	Promote financing for development
Country Program Results Matrix	GN-2948-2	The intervention is included in the 2019 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
<b>II. Development Outcomes - Evaluability</b>		
<b>3. Evidence-based Assessment &amp; Solution</b>	7.4	
3.1 Program Diagnosis	1.8	
3.2 Proposed Interventions or Solutions	3.6	
3.3 Results Matrix Quality	2.0	
<b>4. Ex ante Economic Analysis</b>	9.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	3.0	
4.2 Identified and Quantified Benefits and Costs	3.0	
4.3 Reasonable Assumptions	1.0	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	0.0	
<b>5. Monitoring and Evaluation</b>	7.9	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	5.4	
<b>III. Risks &amp; Mitigation Monitoring Matrix</b>		
Overall risks rate = magnitude of risks*likelihood	Low	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	B.13	
<b>IV. IDB's Role - Additionality</b>		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	AFD will participate in regional cooperation RG-T3488 Support to Public Development Banks in the Institutional Strengthening for the Use of Digital Tools and Improvement in the Supervision and Evaluation of their Programs. This TC will allow it to be strengthened with instruments for the capture, use and processing of digital information and with monitoring and evaluation systems for its projects, which will allow it to increase the efficiency, effectiveness and transparency of the management of its programs. See main document, paragraph 1.32.

Note: (\*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

**Evaluability Assessment Note:**

This is operation for US\$30 million is the second operation of a conditional credit line for investment loans (CCLIP). The general objective of the program is to contribute to the growth in productivity of the agricultural sector in Paraguay. The specific objective of the project is to increase access to medium and long-term credit to eligible agricultural sub-borrowers tending to incorporate technologies so that they can invest productively. The agricultural sector represents 10% of GDP and more than 60% of the country's exports. However, its growth capacity is limited by low levels of capitalization and investment. Although the credit portfolio of the banking system exhibits high representation of the agricultural sector (about one third of the system's portfolio), most of these loans are short-term loans for working capital. Family farms have less access to credit, with only 17.7% of non-business soy producers served by credit institutions. In short, the financial system does not adequately supply the productive credit needs for investment of both business and family producers. The document presents this problem in a clear way, although it suffers from some sparsity of information to fully dimension the problems. The results matrix appears as reasonable, oriented to measure impacts on productivity and results in terms of the characteristics of the received financing, and on the decisions of productive inputs use by producers beneficiary of the loans.

The ex-ante economic analysis of the intervention is appropriate, with reasonable assumptions, and with reasonable sensitivity analyzes. The expected net present value of the project is US\$9.8 million, and the expected internal rate of return is 24%.

The project evaluation plan proposes an ex-post cost-benefit analysis. This type of analysis does not allow to measure the ex-post effectiveness, but the efficiency of the project at its end. Additionally, the project expects to be able to carry out an impact evaluation for the productivity results, but there is a high degree of uncertainty about the availability of data necessary to carry out this evaluation.

## RESULTS MATRIX

<b>Project objective:</b>	The general objective of the program is to help boost the productivity of Paraguay's agriculture sector. The specific objective is to increase access to medium- and long-term financing for eligible agricultural sub-borrowers intending to acquire technologies for productive investment purposes.
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### EXPECTED IMPACT

Indicators	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target	Means of verification	Comments
<b>IMPACT 1: INCREASED AGRICULTURAL OUTPUT AS A RESULT OF PROGRAM SUPPORT</b>										
<b>Indicator 1:</b> Average difference in yield between soybean farmers financed by the program and the control group.	Metric tons per hectare (mt/ha)	0	0	0.02	0.05	0.05	0.05	0.05	Impact evaluation. The impact evaluation is to be conducted using information from CAPECO for AFD's entire sector, and other secondary sources (see <a href="#">monitoring and evaluation plan</a> ).	The objective of this indicator is to measure the variation in crop yields that can be attributed to the program. The total impact should be reflected after the first two years of the investment. The baseline target reflects average yields in Paraguay over the last five years (information from the Paraguayan Chamber of Exporters of Grains and Oilseeds, CAPECO). The beneficiaries of this operation are expected to be in the high-yield category of Paraguay's agriculture sector, approaching the levels seen in comparator countries with the highest agricultural output, such as Argentina. A positive difference is expected between the yields obtained by the end beneficiaries of this operation and the control group in Paraguay's agriculture sector. It was decided to not include this indicator in the outcomes since it would require the inclusion of an impact evaluation in the monitoring and evaluation studies for this program, in order to establish that the outcomes of this indicator were attributable to the program, isolating any possible exogenous effects. The average output observed in Paraguay from 2014 to 2018 was 2.78 mt/ha.

Indicators	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target	Means of verification	Comments
<b>Indicator 2:</b> Average difference in yield between wheat farmers financed by the program and the control group.	mt/ha	0	0	0.01	0.02	0.02	0.02	0.02	Impact evaluation	Same as above. The average output observed in Paraguay from 2014 to 2018 was 2.05 mt/ha.
<b>Indicator 3:</b> Average difference in yield between corn farmers financed by the program and the control group.	mt/ha	0	0	0.19	0.37	0.37	0.37	0.37	Impact evaluation	Same as above. The average output observed in Paraguay from 2014 to 2018 was 5.05 mt/ha.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target <sup>1</sup>	Means of verification	Comments <sup>2</sup>
<b>OUTCOME 1: INCREASED PROVISION OF INPUTS FOR FARMS SUPPORTED BY THE PROGRAM</b>										
<b>Indicator 1:</b> Agricultural area prepared for irrigation on the farms supported by the program.	(Hectares prepared for irrigation/Total hectares) x100	3%	3.5%	4.5%	5.5%	6.5%	7.5%	7.5%	AFD, through surveys; FAO and CAPECO	This indicator shows the percentage of agricultural area prepared for irrigation in Paraguay, over total agricultural area. The series shows this indicator for the farms supported by the program. The baseline and targets are established considering the current gap for this input between Paraguay and Argentina (selected as the comparison country in the region), and the expected gradual closing of this gap. With the support of this operation, the financed farms are expected to obtain a percentage of irrigated area close to half the percentage observed in Argentina. FAO and CAPECO provide national information on these indicators, and the plan will be to obtain information on the supported farms through telephone surveys, with the assistance of representative intermediary financial institutions (IFIs) that lend AFD resources, and finally, to elaborate on this indicator in the impact evaluation.
<b>Indicator 2:</b> Agricultural machinery per km <sup>2</sup> on the farms supported by the program.	Agricultural machines/ 100 km <sup>2</sup>	68.7	70.7	72.7	74.7	76.7	78.7	78.7	AFD, through surveys; FAO and CAPECO	This indicator shows the number of agricultural machines per 100 km <sup>2</sup> of agricultural area in Paraguay. The series shows this indicator for the farms supported by the program. The baseline and targets are established considering the current gap for this input between Paraguay and Argentina (selected as the comparison country in the region), and the expected gradual closing of this gap. With the support of this operation, the financed farms are expected to procure a number of machines close to half the number in Argentina. FAO and CAPECO provide national information on these indicators, and the plan will be to obtain information on the supported farms through telephone surveys, with the assistance of representative IFIs that lend AFD resources, and finally, to elaborate on this indicator in the impact evaluation.



Indicators	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target <sup>1</sup>	Means of verification	Comments <sup>2</sup>
<b>OUTCOME 2: BETTER FINANCING TERMS AND CONDITIONS FOR PRODUCTIVE INVESTMENT IN THE AGRICULTURE SECTOR</b>										
<b>Indicator 1:</b> Total amount of new medium- and long-term loans made to the agriculture sector at AFD.	US\$ millions	45.9	51.9	51.9	51.9	51.9	51.9	259.5	AFD administrative records	The baseline reflects data on AFD's portfolio in 2017, the last year it received resources via the first program (PR-L1095) under the CCLIP (PR-X1006). It reflects only the total annual amount of new loans, aggregated to calculate the final target. The expected increase reflects the injection of funds under this program.
<b>Indicator 2:</b> Average term of AFD credit lines supported by the program. <sup>1</sup>	Months	54	54	54	54	54	54	54	AFD administrative records on loan terms	The baseline reflects observed figures. Information on the terms of the AFD lines supported by this program will be provided by AFD.
<b>Indicator 3:</b> Percent difference in the nonperforming portfolio for the agriculture sector observed across the entire banking system vs. the nonperforming portfolio for the sector in the IFIs supported by this intervention. <sup>2</sup>	Percentage points	1.25	1.25	1.25	1.25	1.25	1.25	1.25	Superintendency of Banks (Central Bank of Paraguay)	As this indicator is defined, a positive difference indicates a lower percentage of nonperforming loans at the IFIs that onlend the resources provided by this operation. The baseline reflects observed values. Information on the sector's nonperforming portfolio for the banking system as a whole and for the IFIs within the system is available on the website of the Superintendency of Banks at the Central Bank of Paraguay. The calculation of the relevant nonperforming portfolio includes the agriculture and livestock subsectors. The indicator is calculated as the difference between the weighted average of nonperforming loans in the agriculture/livestock portfolio across the entire financial system and the weighted average of nonperforming loans in the agriculture/livestock portfolio among the IFIs supported by this intervention. <b>Weighted average of nonperforming loans in the agriculture/livestock portfolio of the financial system:</b>

<sup>1</sup> The AFD credit lines supported by the program are long-term products. The objective of this program does not call for increasing the terms of these credit lines per se, but rather ensuring their sustainability, which supports the supply of long-term credit. According to the change theory underpinning this program, long-term credit is necessary and conducive to productive investment, which is why no changes in terms are expected.

<sup>2</sup> The nonperforming segment of the agricultural portfolios of the main IFIs to be supported by this program is already better than the agricultural portfolio for the financial system as a whole. Accordingly, the program does not seek to improve the IFIs' nonperforming rate, but to maintain, even by expanding the portfolio, the strong results that have been observed thus far. For this reason, no changes are expected for this indicator.

Indicators	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target <sup>1</sup>	Means of verification	Comments <sup>2</sup>
										<p>The weighted average is calculated considering the weight of the portfolio of each IFI in the financial system and the weight of the portfolio by subsector (agriculture or livestock) in the agricultural/livestock portfolio for the entire financial system.</p> $\sum_{i=1}^N \left[ \left( \frac{\text{Ag/livestock loan portfolio IFIs } i}{\text{Total ag/livestock loan portfolio of the financial system}} \right) x \right.$ $x \left( \text{Nonperforming ag portfolio IFIs } i \times \frac{\text{Ag portfolio IFIs } i}{\text{Ag/livestock portfolio IFIs } i} \right.$ $\left. \left. + \text{Nonperforming livestock IFIs } i \times \frac{\text{Livestock portfolio IFIs } i}{\text{Ag/livestock portfolio IFIs } i} \right) \right]$ <p><b>Weighted average of nonperforming agriculture/livestock portfolio of the IFIs supported by the program:</b> The weighted average is calculated considering the weight of the portfolio of each IFI over the total sum of the agriculture/livestock portfolio of all IFIs supported; and the weight of the portfolio by subsector (agriculture or livestock) in the agriculture/livestock portfolio of each IFI supported by the program.</p> $\sum_{i=1}^N \left[ \left( \frac{\text{Ag/livestock portfolio IFIs } i}{\text{Total ag/livestock portfolio of all IFIs supported}} \right) x \right.$ $x \left( \text{Nonperforming ag portfolio IFIs } i \times \frac{\text{Ag portfolio IFIs } i}{\text{Ag/livestock portfolio IFIs } i} \right.$ $\left. \left. + \text{Nonperforming livestock IFIs } i \times \frac{\text{Livestock portfolio IFIs } i}{\text{Ag/livestock portfolio IFIs } i} \right) \right]$ <p>Information for this indicator will be taken from the public data reported by the Superintendency of Banks of Paraguay.</p>

OUTPUTS

Outputs	Unit of measure	Baseline 2019	2020	2021	2022	2023	2024	Target <sup>1</sup>	Means of verification	Comments <sup>2</sup>
<b>SOLE COMPONENT: IMPROVED ACCESS TO FINANCE (US\$30 MILLION)</b>										
<b>Output 1:</b> Number of beneficiaries supported by the program.	Number	0	42	42	42	42	42	210	AFD administrative records and information systems through surveys	The number of beneficiaries was calculated based on the average amount of the loans issued.
<b>Cost</b>	US\$ millions	0	6	6	6	6	6	30		
<b>Milestone 1:</b> Number of agricultural units supported by the program with majority participation by women	Number								AFD administrative records and information systems through surveys	This refers to the agricultural units benefited by the program with at least 50% participation of women in management, including directors and managers. This indicator does not include expected outcome targets, since it is only intended to record and measure data.

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

<b>Country:</b>	Paraguay
<b>Project number:</b>	PR-L1170
<b>Name:</b>	Access to Financing for Investments in Paraguay's Agriculture Sector
<b>Executing agency:</b>	Agencia Financiera de Desarrollo [Development Finance Agency] (AFD)
<b>Prepared by:</b>	Fernando Glasman and Jorge Seigneur – Financial Fiduciary Specialists (FMP/CPR)

### I. EXECUTIVE SUMMARY

- 1.1 The fiduciary management of the project was evaluated based on the proposed program, which has the general objective of helping to boost the productivity of Paraguay's agriculture sector. The specific objective is to increase access to medium- and long-term financing for eligible agricultural sub-borrowers intending to acquire technologies for productive investment purposes.
- 1.2 Agencia Financiera de Desarrollo [Development Finance Agency] (AFD), created by Law 2640/05, is the country's only second-tier public bank that makes its lending products available to the public exclusively through qualified banks, financial institutions, and credit unions. It does not lend directly to end beneficiaries. AFD's experience in operations of this kind demonstrates a positive track record in the administration of funds, thus indicating the sufficient fiduciary reliability required.
- 1.3 The project does not include financing from other multilateral institutions.

### II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 As the executing agency, AFD has adequate systems in place to ensure the fiduciary management of the funds intended for intermediation loans, based on technical and financial supervision visits and the internal control reports issued by external auditors. Also, the last official report of the standard internal control model for the first half of 2017 concludes that the agency has sufficient internal control.

### III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 Given AFD's successful experience executing operations with the IDB, the level of supervision required to comply with the Credit Regulations will be the standard level for the normal execution of this program.

#### **IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS**

- 4.1 The following agreements and requirements to be considered in the special provisions of contracts are as follows:
- a. To determine the dollar equivalent of an expense paid in local currency using the loan proceeds, the exchange rate in effect on the date the expense was paid in the local currency of the borrower's country will be used.

#### **V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION**

- 5.1 The executing agency will not conduct any procurement activities to purchase goods or contract services for this operation.

#### **VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS**

##### **A. Financial management**

##### **1. Programming and budget**

- 6.1 Since AFD is an autonomous agency, funds provided by the government are available for its operations, but their execution is discretionary depending on its needs.
- 6.2 AFD is an autonomous, independent entity organized and operating under public law, in accordance with Law 3330/07 "amending Articles 1, 3, 5, 6, and 14 of Law 2640/05." Its core mission is to promote economic growth and job creation by channeling medium- and long-term financing to the private sector through banks, financial institutions, and credit unions (intermediary financial institutions, or IFIs).
- 6.3 The Office of Administration and Financial Management will be responsible for the programming, management, and execution of the budget, based on the zero-based budget system, and AFD's planning system is reconciled with annual and multiyear lending plans. It should also be noted that the availability of the project's initial resources will be subject to ratification of the project by Paraguay's Congress before budget allocations can be made.

##### **2. Accounting and information systems**

- 6.4 The modified cash basis of accounting is used in the country; however, the cash basis is used for the rendering of accounts for IDB-financed projects.
- 6.5 **Information systems.** AFD will have access to the Integrated Financial Management System (SIAF). The country systems do not generate the reports required by the Bank, which are prepared using different systems; however, AFD has an accounting system that can migrate data through an equivalent interface and chart of accounts.
- 6.6 **Disbursements and cash flow.** Program disbursements will be made in the form of advances of funds or reimbursements, which must meet the conditions set out in the loan contract and the program's Operating Regulations in order to be accepted. If there is any discrepancy between those documents, the provisions of the loan contract will prevail.

- 6.7 **Internal control and auditing.** The executing agency’s internal control processes were found to have a satisfactory level of performance according to the last report of Paraguay’s Standard Internal Control Model (MECIP) for the first half of 2017 that was published by the Audit Office of the Executive Branch.
- 6.8 **External control and reporting.** The executing agency will submit audited annual reports for the program, prepared by an independent audit firm acceptable to the Bank, in accordance with terms of reference previously agreed upon with the Bank. The audited financial statements include cash flow statements, the cumulative investment statement, notes to the audited financial statements, and the statement issued by the project management team. The audit report will include an evaluation of the internal control system.
- 6.9 The project will require the selection of an eligible independent audit firm.
- 6.10 External audit costs will be covered by the executing agency.
- 6.11 **Financial supervision plan.** The financial supervision plan may be adjusted based on execution of the project and the audit reports.

**Table 1. Financial supervision plan**

Nature/Scope	Frequency
Submittal of audited financial statements	Annual
Review of disbursement requests and appended reports	2 or 3 per year
Inspection visit/assessment of internal controls and control environment in the management of the project	Annual

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/19

Paraguay. Loan \_\_\_/OC-PR to the Agencia Financiera de Desarrollo. Access to Financing for Investments in Paraguay's Agriculture Sector. Second Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) PR-X1006

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with Agencia Financiera de Desarrollo, as Borrower, and with the Republic of Paraguay, as Guarantor, for the purpose of granting the former a financing aimed at cooperating in the execution of the program Access to Financing for Investments in Paraguay's Agriculture Sector, which constitutes the Second Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) PR-X1006, approved by Resolution DE-158/15 on December 11 of 2015. Such financing will be in the amount of up to US\$30,000,000, from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_ \_\_\_\_\_ 2019)

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