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DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PARAGUAY

PROGRAM TO REHABILITATE AND MAINTAIN AGROINDUSTRIAL CORRIDORS

(PR-L1164)

LOAN PROPOSAL

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2. Monitoring and evaluation plan
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ABBREVIATIONS

BCP	Central Bank of Paraguay
ECATEF	Consulting firm for technical and fiduciary support
ECLAC	Economic Commission for Latin America and the Caribbean
EIRR	Economic internal rate of return
ENPV	Economic net present value
GPV	Office of the Project Manager for Roads
HDM-4	Highway Development and Management Model, Version 4
ICB	International competitive bidding
IRI	International Roughness Index
KIF	Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean
MOPC	Ministry of Public Works and Communications
NCB	National competitive bidding
PEU-MOPC	MOPC project execution unit

PROJECT SUMMARY

PARAGUAY
PROGRAM TO REHABILITATE AND MAINTAIN AGROINDUSTRIAL CORRIDORS
(PR-L1164)

Financial Terms and Conditions					
Borrower:				**Flexible Financing Facility[b]**	**KIF**
Republic of Paraguay			**Amortization period:**	25 years	
Executing agency:			**Disbursement period:**	7 years	
Republic of Paraguay, acting through the Ministry of Public Works and Communications (MOPC)			**Grace period:**	7.5 years[c]	7 years
Source	**Amount (US$)**	**%**	**Interest rate:**	LIBOR-based	2.5%
IDB (Ordinary Capital):	185,000,000	78.72	**Credit fee:**	[d]	N/A
IDB (KIF)[a]	50,000,000	21.28	**Front-end fee:**	[d]	0.1%
			Weighted average life:	15.25 years[e]	N/A
Total	**235,000,000**	**100.00**	**Currency of approval:**	U.S. dollars	

Project at a Glance
Project objective: The objective is to improve the productivity of the agriculture and livestock sector in Paraguay. The specific objective is to help improve and maintain the quality of production roads that serve the agroindustrial sector in the area of intervention.
Special contractual conditions precedent to the first disbursement of the loan: Evidence will be submitted, to the Bank's satisfaction, of the following: (i) the entry into force of the program Operating Regulations (optional link 15), in accordance with the terms agreed upon with the Bank; and (ii) the assignment of the project to the project execution unit, by means of a ministerial resolution (paragraph 3.7). See the contractual conditions in Annex B to the environmental and social management report (required link 3). **Special contractual conditions for execution:** See the contractual conditions in Annex B to the environmental and social management report (required link 3).
Exceptions to Bank policies: None.

Strategic Alignment						
Challenges:[f]	SI	☐	PI	☑	EI	☑
Crosscutting themes:[g]	GD	☑	CC	☑	IC	☐

[a] The Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (KIF) is administered directly by the Bank.

[b] Under 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.

[c] Under the flexible repayment options of the Flexible Financing Facility, changes in the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

[d] 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 applicable policies.

[e] The original weighted average life may be lower based on the date when the loan contract is signed.

[f] SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

[g] 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 **Territorial and socioeconomic context.** Paraguay's economy has been among the fastest growing in the region for the past 15 years. Since 2004, real GDP has grown at an annual average rate of 4.5%, outpacing the 3.0% seen in the rest of the region. This has translated into per capita GDP growth of 46.4%, compared with 21.3% for Latin America and the Caribbean.[1] However, this performance has been accompanied by significant GDP volatility, with the country highly dependent on weather factors and the economies of neighboring countries,[2] and has not resulted in major productivity gains.[3] There has been rapid growth in foreign trade in the past decade, and total exports and imports account for almost 77% of GDP.[4]

1.2 **Agricultural and livestock production.** Paraguay's economy relies heavily on the performance of the agriculture and livestock sector. Figure 1 shows how highs and lows in GDP coincide with increases or decreases in agricultural GDP. In 2018, agriculture and livestock accounted for 10.1% of GDP (7.9% agriculture and 2.2% livestock) and 11.1% of GDP if forestry and fisheries are included.[5] If agroindustrial production is taken into account, the total contribution for the sector would be approximately 35% of GDP. With respect to foreign currency inflows, approximately 77% (excluding revenue from electricity exports) are generated by agricultural and livestock products and their byproducts.[6] Extensive agriculture is dominated by three crops: soybeans, corn, and wheat, which accounted for 86% of the total cultivated area for the 2015/2016 harvest and 50.3% of the agriculture and livestock sector's gross production value.[7] Beef production has increased significantly, making the country one of the seven largest exporters of this product worldwide.[8] As of December 2017, the cattle herd was 13.8 million head, and exports that year totaled 258,200 tons, equivalent to US$1.102 billion.[9] Paraguay has an annual growth rate for output in the primary agriculture and livestock sector of 1.6%, above the average (1.2%) for countries in the region for the 1980-2012 period. This rate is similar to that of Argentina and Uruguay but below countries such as Peru, Brazil, and Chile and approximately 50% less than the average for member countries of the Organisation for Economic Co-operation and Development (OECD).[10] Specifically, there are still challenges in terms of productivity in the dairy sector, considering that the country's average output at

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1 In constant U.S. dollars using purchasing power parities. Source: Authors' calculations based on data from the Central Bank of Paraguay (BCP) and the International Monetary Fund.

2 There were economic recessions in 2009 and 2012, as a result of severe droughts. During these years, GDP fell by 4% and 1.2%, respectively.

3 IDB Group Country Strategy with Paraguay 2019-2023.

4 BCP, 2016.

5 BCP, 2019.

6 Foreign trade report. BCP, 2016.

7 Análisis de políticas agropecuarias en Paraguay, IDB, 2018.

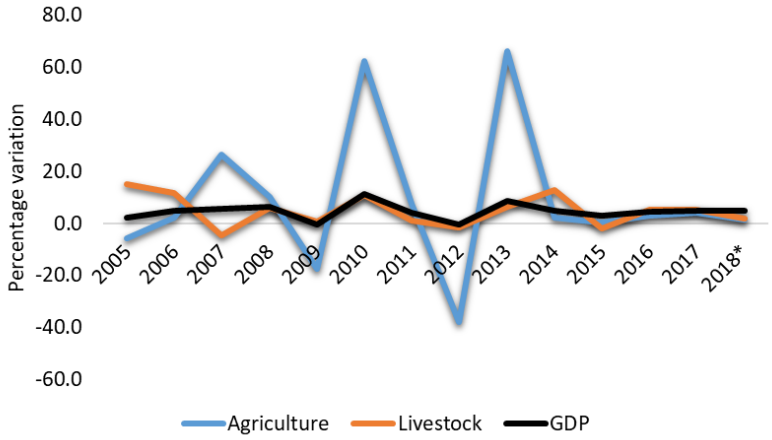
8 Paraguay: Livestock and Products Annual. United States Department of Agriculture, 2016.

9 National Service for Animal Health and Quality, 2017.

10 Productivity and the Performance of Agriculture in Latin America and the Caribbean, Nin-Pratt et al., IDB, 2015.

dairy farms is 10 liters per cow per day,[11] well below the average for other countries in the region.[12] Low productivity is also seen in the livestock sector, where there are still significant output gaps compared with other countries in the region, considering that annual output per hectare in Paraguay is 28.9 kilograms, versus 49 kilograms for Brazil, 34 kilograms for Argentina, and 40 kilograms for Uruguay.[13]

Figure 1. GDP growth rates



Source: BCP (*) preliminary figures.

1.3 **Agriculture and livestock production and industrialization in the Chaco region.** The country is divided into two regions separated by the Paraguay River: the eastern region and the western region, or Chaco. Paraguay has a total area of 406,752 square kilometers and a population of 7 million inhabitants. The Chaco region accounts for 61% of the total land area but is home to just 3% of the population.[14] The demographic and economic organization of the Paraguayan Chaco region is based on Mennonite colonies and their production cooperatives, located mainly in the central area of the Chaco, where the main towns are Filadelfia, Loma Plata, and Neuland. Jointly, these production cooperatives own four dairy plants, three meat processing plants, eight animal feed processing plants, and yerba maté facilities, among other businesses that supply local and international markets. There are approximately 6.1 million head of cattle (44% of the country's total) in this region, from which almost 47% of beef exports originate.[15] For the 2018-2023 period, the number of cattle for the three departments in the Chaco is expected to grow at an annual rate of 4%, well above the projections for the eastern region, estimated at 0.5%.[16] The dairy sector in the

[11] Chamber of Dairy Industries of Paraguay, 2015.

[12] Argentina: 20 liters per cow per day (Ministry of Agriculture, Livestock, and Fisheries, 2017); Uruguay: 17 liters per cow per day (Ministry of Agriculture, Livestock, and Fisheries of Uruguay, 2016).

[13] EA Digital, 2014.

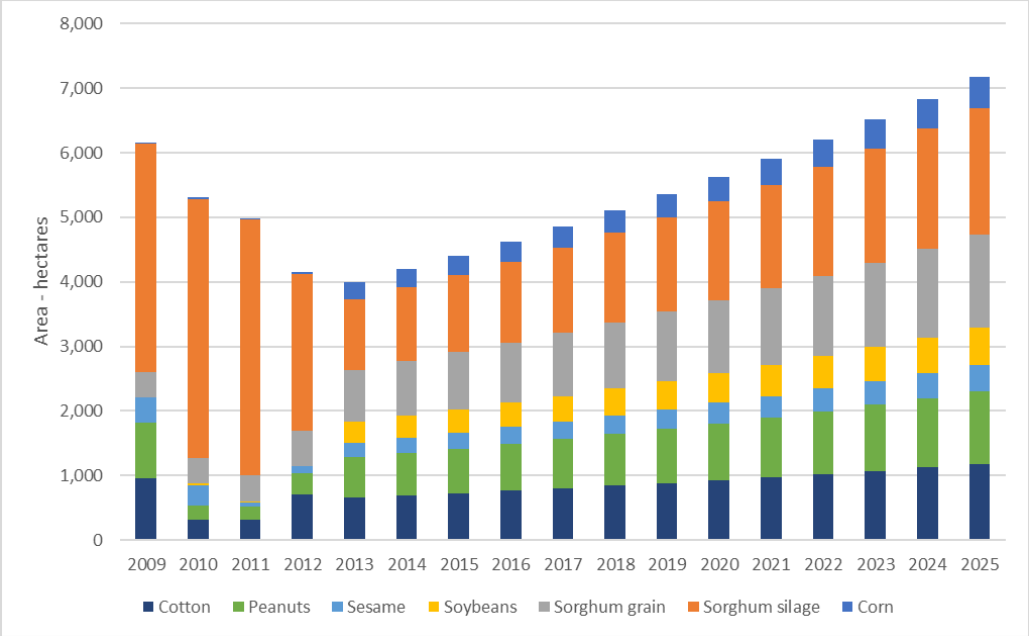
[14] Permanent Household Survey; Bureau of Statistics, Surveys, and Census; 2017.

[15] National Service for Animal Health and Quality, 2017.

[16] 2018-2023 Transportation Master Plan. MOPC, 2018.

Chaco has 109,000 head of cattle, accounting for more than 55% of the country's herd. Paraguay produces 888 million liters of milk per year.[17] More than 90% of the Chaco region's dairy production is industrialized[18] for exports[19] and for domestic consumption, and processing plants use state-of-the-art technology. In addition to livestock production, the area of influence in central Chaco has experienced sustained growth in agricultural production, notably of sorghum, soybeans, peanuts, cotton, and corn (Figure 2).

Figure 2. Estimates of agricultural production in central Chaco



Source: Cooperativa Chortitzer Ltda.

1.4 According to the 2030 National Development Plan of Paraguay, the country is trying to promote industrialization processes in the agriculture and livestock sector and to increase its diversification by: (i) promoting the establishment of value chains and production clusters; (ii) fostering the identification of potential for productive integration; (iii) generating industrial innovation; (iv) promoting improvement and processing techniques; (v) providing cargo transportation and logistics infrastructure; and (vi) developing the livestock and farming sector. All these activities depend on the levels of accessibility, coverage, and quality of the road system (serviceability and level of service).

1.5 **Condition of road infrastructure and organization of the road sector.** Paraguay has a road system measuring approximately 80,127 kilometers, of which 10.9% are national roads and the remainder are department and local roads.[20] In

[17] Chamber of Dairy Industries of Paraguay, 2017.

[18] Nationwide, approximately 75% of dairy production is industrialized. Source: Chamber of Dairy Industries of Paraguay, 2017.

[19] Chamber of Dairy Industries of Paraguay, 2017.

[20] Roads inventoried as of 2018. Source: MOPC.

all, there are 8,446 kilometers of all-weather roads,[21] of which 38% are in fair condition and 20% are in poor condition.[22] Roads in the Chaco cover approximately 18,962 kilometers,[23] equivalent to a road density of 0.077 kilometers per square kilometer, well below that of the eastern region (0.38 kilometers per square kilometer),[24] which illustrates the clear discrepancy in access to infrastructure between the two regions. In turn, a large portion of the Chaco's paved infrastructure is extremely deteriorated, as reflected in an average International Roughness Index (IRI) of 4.27 for National Route 9,[25] the only north-south paved arterial road in the Paraguayan Chaco. The national government, acting through the Ministry of Public Works and Communications (MOPC), prepares and implements policies and provisions related to basic services and infrastructure for the economic development and integration of the country, with primary responsibility for planning and managing the development and maintenance of the country's road infrastructure. These responsibilities extend to all types of road, with a Roads Division in charge of national and departmental roads and a Rural Roads Division in charge of rural roads.

1.6 Paraguay is one of the Latin American and Caribbean countries with the highest costs associated with the movement of goods within the region.[26] This is due in part to its lack of direct access to the sea and, therefore, the fact that is heavily dependent on ground and fluvial transportation, as well as on cargo transfer operations with bordering countries. All agriculture and livestock exports must be shipped by road, whether to be exported directly by ground or delivered to ports on the Paraná and Paraguay Rivers for transport by river. National logistics costs were US$2.9 billion, as estimated in 2011 (11.52% of GDP for that year), of which 50.3% represent the operating costs of road transportation.[27] In 2018, Paraguay obtained a score of 2.78 in the Logistics Performance Index, ranking 74th of 160 countries. Paraguay has transportation costs estimated at 9.3% of the trade value, above the regional average for member countries of the Latin American Integration Association (6.3%).[28] This situation is a major obstacle to increasing productivity and diversifying production.[29]

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21 This includes interventions with asphalt, surface treatment, concrete, block paving, and rough-hewn cobblestone.

22 Overall condition of Paraguay's paved roads based on IRI results (2013-2014). The thresholds adopted are: IRI <2.5, good; IRI between 2.5 and 4, fair; IRI >4, poor. Source: MOPC (optional link 7).

23 Of these, 1,012 kilometers are considered as all-weather roads.

24 MOPC, 2018.

25 Located between Kilometer 50 and 425, and equivalent to 47% of the Chaco's paved network (2017), MOPC.

26 For Paraguay, the cost to export is US$1,850 per container, above the countries in the region: Argentina, US$1,770; Bolivia, US$1,440; Uruguay, US$1,125; and average for Latin America and the Caribbean: US$1,287. Source: Trading Economics.

27 National Logistics Plan, logistics cost, 2013.

28 El costo de la mediterraneidad: Los casos de Bolivia y Paraguay. Latin American Integration Association, 2016.

29 Diagnóstico de crecimiento de Paraguay. IDB, 2015.

1.7 **Insufficient investment and deterioration of road infrastructure.** Historically, due to limited resources for financing, there has been insufficient investment[30] in transportation infrastructure with respect to the country's needs. Public spending on infrastructure between 2008 and 2016 in Paraguay averaged 2.73% of GDP,[31] below the estimated rate needed (5%) to cover infrastructure gaps in the region.[32] During the same period, average public investment in transportation accounted for 0.92% of GDP and mainly went to roads. Meanwhile, no investments were recorded for the private sector.[33] According to the Global Competitiveness Report 2018,[34] with respect to infrastructure quality, the country ranks 101st of 140 countries. Specifically, for road quality, it ranks 129th of 140, demonstrating a deficit in infrastructure quality. As far as maintenance of road infrastructure, considering the limited capacity and weaknesses characterizing the mechanism for centralized management of the country's road system (paragraph 1.5), the MOPC has decided to address about 39% of the country's paved roads, through contracts with the private sector for rehabilitation and maintenance based on levels of service.[35] The rest is maintained administratively by the MOPC,[36] with a low allocation of resources. The centralized system used by the MOPC for maintenance of the country's road system lacks efficiency, especially as concerns subsidiary roads, with provincial and municipal governments having to supplement the interventions in order to cover investment shortfalls for works and maintenance. The low percentage of paved roads and poor maintenance of the road system increase logistics costs, restricting connectivity, productivity, and national competitiveness (paragraph 1.6).

1.8 **Vulnerability to climate change and sustainable infrastructure.** In 2013, Paraguay was ranked 16th of 180 countries with a high degree of exposure to climate change effects, according to the Climate Risk Index (2015). The index also ranked Paraguay in 7th position in terms of greatest impact on GDP (0.63%), due to its heavy reliance on a primary production system and because its infrastructure, logistics capacity, and service sector are still developing. Specifically, the Chaco will be highly vulnerable over the next three decades, during which average annual temperature is expected to increase by up to 1º C with respect to temperatures recorded during the 1961-1990 period.[37] This would increase the intensity of

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30 According to the 2013-2018 MOPC Road Investment Plan, suboptimal investment in conservation is reflected in having almost 58% of paved roads in fair or poor conditions (paragraph 1.5). Source: Transportation Master Plan, 2013.

31 Infralatam, 2019.

32 Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy, IDB, 2014.

33 Although there are two laws on the books in Paraguay to promote private participation in the construction of infrastructure (Law 5112/2013 on public-private partnerships and Law 5074/2013, or the Turnkey Law), the first PPP contract was signed in 2017 to expand and operate National Routes 2 and 7 (US$520 million) and the first contract under the Turnkey Law was signed in 2018 to build the first stage of the Interoceanic Road Corridor (US$443 million).

34 World Economic Forum, 2018.

35 These contracts include capital and routine maintenance investments necessary for the conservation of the segments to be intervened.

36 MOPC road management system report (optional link 7).

37 Estudio de vulnerabilidad e impacto del cambio climático en el Gran Chaco americano, 2017.

rainfall,[38] with subsequent floods, resulting in loss of connectivity and in isolation due to the deterioration and interruptions in the use of the road infrastructure, as well as impacting production activities and the population in general.

1.9 **Road safety.** The country acknowledges the high economic cost and social problems of traffic accidents. These accidents have been rising steadily to become the second main cause of premature deaths in the country,[39] with a rate of 22.7 fatalities per 100,000 inhabitants, which makes Paraguay the sixth most dangerous country in the region in terms of road-traffic fatalities.[40] Estimates show that having a patient in intensive care costs the government US$1,200 per day, with an average hospital stay of 16 days.[41] To address road safety issues, the MOPC is leading the implementation of the National Road Safety Plan 2013-2018 in coordination with other ministries and entities. This plan is being updated for the 2019-2030 period.[42]

1.10 **Identification of the problem and its main determinants.** The low density of paved roads, coupled with the low quality of the road system (paragraph 1.5) and high rainfall levels (paragraph 1.8), limit access to transportation services for the population and productive activities. This highlights the importance of improving and maintaining the road system, which is essential to promote economic and social development in a country that is heavily dependent on an economy that exports agricultural and livestock products (paragraph 1.2). Two of the main challenges related to Paraguay's low productivity levels are associated with structural development issues linked to economic integration and productive diversification, as well as the lack of infrastructure[43] (paragraph 1.5).

1.11 Limitations in terms of accessibility and serviceability result hinder opportunities for productivity growth, taking into account that interventions on road infrastructure facilitate investment or act as a multiplier, decreasing production costs and providing access to new markets. Therefore, they create new production, trade, and economic opportunities for various stakeholders.[44] According to one calculation, owing to the lack of all-weather roads in the central region of the Chaco, more than 2 million liters of milk were lost in March and April 2018 alone because the product could not be delivered to the processing plants. In particular, this lack of accessibility and serviceability is even more sensitive and critical in milk-producing areas, where the supply chain from production to processing is of short duration and any interruption in serviceability entails an interruption in the supply of the product for processing. Therefore, despite the production potential, Paraguay's market ends up with product shortages domestically and exports fewer products with respect to its installed capacity. In addition, there are problems with

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38 Total rainfall at the Pozo Colorado weather station (2017), located in central Chaco, was 1,084 millimeters. Added to the characteristic flatness of the Chaco, this generated flooding issues.

39 Health Data.

40 World Health Organization, data as of 2016, published December 2018.

41 Ministry of Public Health and Social Wellness, 2013.

42 Financed with resources from loans 2934/OC-PR and 2935/BL-PR.

43 Paraguay – Rutas para el Desarrollo (optional link 9). IDB, 2019.

44 Infrastructure and growth in South Africa: Direct and indirect productivity impacts of 19 infrastructure measures. Fedderke, J. W. and Ž. Bogetić, 2009.

road safety that affect the roads in this operation, increasing the risk of traffic accidents (paragraph 1.14).

1.12 **Rationale and proposed interventions.**[45] Transportation infrastructure in rural areas is fundamental for agricultural productivity and poverty reduction because it enables access to inputs on time and at lower cost, prevents losses during transport, and improves access to domestic and international markets. Considering the prevalence of road transportation in the movement of domestic and export freight in Paraguay (paragraph 1.6), the improvement and timely maintenance of the level of service for roads that serve the country's agroindustrial sector will help reduce transportation costs for areas with high economic and productive potential.[46] Therefore, this is expected to increase average annual growth in production and exports for industries located in the area of influence[47] (paragraph 1.14). In addition, road infrastructure must be adapted for extreme precipitation events through interventions that include criteria for sustainability and resilience to climate change in the design of road surfaces, bridges, drainage, and sewers.

1.13 This operation will also complement the Bank's support in promoting the diversification and industrialization of agriculture and livestock sector products and the functional integration of Paraguay with the rest of the countries in the region and other parts of the world (optional link 18). An impact evaluation of agricultural development projects (Lema, Guerrero, and Galetto, 2016) found that for road improvement projects, there is an increase in total production and productivity levels of dairy farms before and after improvement of the road[48] (2005-2011). With this in mind, the proposal is to develop a multiple works investment project to carry out a program of rehabilitation and maintainenance of agroindustrial corridors (the program), which will contribute to the development of a more efficient transportation system with shorter travel times, lower operating costs, and increased safety, for lower transaction costs. This will, in turn, result in higher productivity rates for the area's agriculture and livestock sector, which will have a positive impact on the activities of the other sectors in the area of intervention.

1.14 **Cruce Pioneros-Paratodo segment and access roads.** This segment constitutes the representative sample for the program. Measuring approximately 104 kilometers, including access roads to various communities,[49] it runs between

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45 Expansão Rodoviária e Desenvolvimento Agrícola dos Cerrados (Castro, N., 2002) studied the impact of transportation costs on agricultural production between 1970 and 1996 in Brazil's Center-West. It found that this region showed a marked, robust sensitivity to transportation costs, reflected in negative elasticity between -0.4 and -0.9 (a 1% increase in transportation costs reduces soybean production and trade between 0.4% and 0.9%). This impact is even larger in locations in the region where agriculture comprises a high proportion of GDP and that have longer transportation routes, such as the Paraguayan Chaco.

46 Logistics cost overruns for products representative of foreign trade surpass 2% of GDP. Impacto del Transporte y de la Logística en el Comercio Internacional del Paraguay. United States Agency for International Development, 2006.

47 In Peru, Volpe Martincus C. et al. (2014), cited by Berg et al. (2016), found that a road investment program led to a significant increase in the average annual growth of exports from companies (6.4%).

48 Average increase of 7,370 liters per year per kilometer of proximity to the improved road.

49 Access to: Santa Cecilia (10.63 kilometers); Lolita (3.78 kilometers); Campo Aceval (5.1 kilometers); and Paratodo (12.67 kilometers).

Cruce Pioneros, located at kilometer 410 of National Route 9,[50] and the town of Paratodo. It is mostly used by the area's farmers and ranchers, since the farms and ranches of Mennonite colonies in central Chaco are located along this segment. At its busiest point, annual average daily traffic (2018) on the segment totals 3,615 vehicles (optional link 2). This segment is currently unpaved and has rutting and loose material that raises considerable dust during the dry season, causing serious road safety issues.[51] The width of the road varies, and it is not properly graded to enable water runoff from the surface. Given the flat terrain of the Paraguayan Chaco, this means that during rainy seasons water does not drain properly, causing extensive flooding of the roadway (paragraph 1.8) and isolating the area, with ensuing delays in the delivery of staple goods and health care items, production losses, and underutilization of the area's production capacity. The area of direct influence of this segment supplies 43.7% of the milk and 20.3% of the beef industrialized by plants in the central Chaco (paragraph 1.3).[52] Based on the production volume, this represents approximately 150,000 liters of milk per day and 250 cows per day that are transported on this road to supply the area's meat processing and dairy plants (Map 1).

1.15 **Regional integration.** The operation is connected to integration initiatives in the portfolio of the South American Council on Infrastructure and Planning. Linking a segment to National Route 9 (paragraph 1.14) will enable the direct connection of people and goods produced in the area of influence with Bolivia and Argentina. Also, the connection with the first phase of the Interoceanic Corridor, which runs from Loma Plata[53] to Carmelo Peralta (currently in execution), will enable a direct link to the border with Brazil.

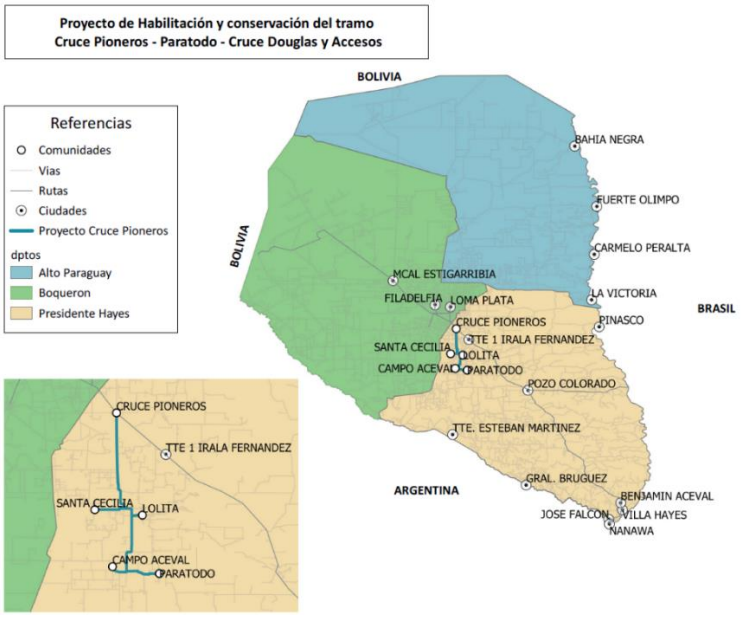
[50] The rebuilding and maintenance of National Route 9 are part of loan 4402/OC-PR.

[51] In addition, the area has few road signs, many of which are makeshift; it is in proximity to electrical transmission line poles; and it lacks visibility due to dust and road debris.

[52] Cooperativa Chortitzer, 2018.

[53] Access to Loma Plata is 13 kilometers from Cruce Pioneros, on National Route 9.

Map 1. Cruce Pioneros (National Route 9)-detour to Paratodo segment and access roads to Santa Cecilia, Lolita, Campo Aceval, and Paratodo



Source: Prepared by the project team.

1.16 **Gender and diversity.** The labor force participation rate for Paraguayan women in the economically active population (55.8%) was relatively close to the regional rate (54.3%). However, it is below the labor force participation rate for men (85.8%).[54] These gaps are even more pronounced in rural areas (50.6% for women and 86.6% for men). In terms of sectors, women have low rates of labor force participation in transportation (14%) and construction (2%),[55] owing, among other factors, to gender stereotypes and cultural paradigms that limit the informal transfer of knowledge about activities related to these sectors to women or that influence vocational decisions about embarking on university degrees or seeking out training in the sector, which limits the pool of qualified women. In addition, a sociocultural study conducted as part of this operation found that 6 indigenous communities made up of 27 villages reside in the area of indirect influence of the sample project, representing a total population of 4,851 inhabitants. In this regard, in consultation with indigenous communities, a management plan for indigenous communities is being proposed. Its objective is to ensure the participation and inclusion of indigenous peoples, seeking to strengthen capacities so that these vulnerable communities have access on an equal footing to the benefits of the operation (optional link 12).

1.17 **Technological innovation and production-oriented local development.** In coordination with the Environment, Rural Development, and Risk Management Division (RND) and IDB Lab, the Bank is conducting an analytical study of technology gaps for dairy farmers and production cooperatives in the area of direct influence of the operation (drawing on examples of dairy farmers who have

54 Economic Commission for Latin America and the Caribbean (ECLAC), 2016.

55 Calculations based on Household Survey, 2014.

adopted state-of-the-art technology, infrastructure, and practices in other parts of the world). In this regard, an opportunity was identified to implement a pilot project, through IDB Lab, to be executed with farmers and production cooperatives. It consists of developing a local facility to adapt agricultural and livestock technologies to the conditions of the Paraguayan Chaco.

1.18 **The Bank's experience in the sector.** For the past 20 years, the Bank has been playing a significant role in the development of the transportation and logistics sector in Paraguay. It has approved operations totaling US$793 million for the country's major road corridors, which, given Paraguay's production matrix, primarily support the agriculture and livestock sector. This has included financing for works to pave 1,035 kilometers of major primary roads, rebuild 535 kilometers, and develop a management system for service-level maintenance of 1,520 kilometers of road.[56] The proposed operation will complement the Bank's activities in the transportation and logistics sector, increasing the quantity[57] and improving the quality of all-weather roads serving the agroindustrial sector.

1.19 In addition, over the past few years, the Bank has approved operations to increase the productivity of the country's agriculture and livestock sector, including: Project to Implement the Census and Agricultural Surveys System (4423/OC-PR); Project to Improve and Expand Animal Health Services in Paraguay (4526/OC-PR); and Project for the Improvement of the National Early Warning System for Hydrometeorological Events (4646/OC-PR). The Bank is also preparing two additional operations: one to improve the innovation and transfer of agricultural technology and another to improve the competitiveness of the national service for health, quality, and safety in vegetables and seeds. The proposed operation is complementary to the mentioned interventions and will leverage them, directly contributing to fostering agricultural and livestock value chains and developing new export sectors.

1.20 **Lessons learned.** A study to evaluate the lessons learned in road corridor improvement and maintenance operations undertaken by the Bank in Paraguay (optional link 3) produced the following recommendations, which have been taken into account in the design of this operation: (i) MOPC technical teams should be of sufficient size to supervise consulting and works contracts and the implementation of environmental and social programs, which is reflected in this operation through specialists and additional personnel to be hired using program resources (paragraph 3.3); (ii) indigenous communities should participate in the planning of support programs and their leaders should be involved for effective implementation, which has occurred in this operation through the personalized consultations held (paragraph 2.8); (iii) the right-of-way should be cleared prior to the start of activities in the work sites, in order to minimize conflicts, which is part of the special contractual conditions precedent to the start order for each segment; (iv) maintenance financing should continue under the service-level standards modality, which is reflected in this operation through the use of rehabilitation and

[56] Loans executed: 933/OC-PR; 1230/OC-PR; 1278/OC-PR; and 1822/OC-PR. Loans in execution: 2934/OC-PR and 2935/BL-PR; 3372/OC-PR; and 3837/OC-PR and 4402/OC-PR.

[57] The density of paved roads in the country remains low compared with the rest of the countries in the region: Paraguay, 0.020 km/km^2; Argentina, 0.0284 km/km^2; Brazil, 0.0250 km/km^2; and Uruguay, 0.0447 km/km^2. Source: ECLAC, 2015.

maintenance contracts (paragraph 1.25); and (v) the processes to review detailed engineering designs should be strengthened prior to launching the tendering process, in order to minimize amendments to agreements, which draw out timeframes and increase execution costs (paragraph 2.13).

1.21 **The Bank's country strategy.** The operation is aligned with the IDB Group Country Strategy with Paraguay 2019-2023 (document GN-2958), specifically with the strategic objective of improving the supply and quality of infrastructure, contributing to the indicator "kilometers of paved road system per thousands of square kilometers of surface." It is also aligned with the crosscutting themes of support to vulnerable populations, environmental sustainability, and innovation and technology. This operation is included in the 2019 Operational Program Report (document GN-2948).

1.22 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the development challenges of: (i) productivity and innovation, by supporting the rehabilitation and maintenance of the infrastructure of road corridors that are strategic for the country; and (ii) economic integration, by helping facilitate access to production and transportation of goods to markets (optional link 18). The program is aligned with the crosscutting themes of: (i) gender equality and diversity, by including women and indigenous communities through actions aimed at strengthening their productive capacity, offering training in various work areas, providing education, awarding paid internships in technical areas related to road works, and promoting women's safety at work sites (optional link 12 and optional link 19); and (ii) climate change and environmental sustainability, because it takes into account recent precipitation levels and estimates of climate change in infrastructure design, enabling better adaptation of infrastructure to this phenomenon. The program is also aligned with the IDB Integrated Strategy for Climate Change Adaptation and Mitigation and Sustainable and Renewable Energy (document GN-2609-1). Approximately 33.3% of the operation's resources will be invested in climate change adaptation activities, according to the joint methodology of the multilateral development banks for tracking climate change adaptation finance (optional link 21). These resources contribute to the IDB Group target of increasing financing for climate-related projects to 30% of approvals by the end of 2020.[58] The program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) through the output "kilometers of roads built or upgraded."

1.23 The program is also consistent with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), since it contributes to the following strategic principles: (i) financing and technical assistance for infrastructure that supports economic growth, provides access, and fosters regional and global integration; and (ii) planning, building, and maintaining road infrastructure to support the delivery of quality services that promote the country's sustainable and inclusive growth. The program is also consistent with the Transportation Sector Framework Document (document GN-2740-7), since it contributes to the following: (i) improving accessibility; and (ii) rehabilitating and improving the conditions of the country's roads to ensure full use of existing assets, increasing safety and promoting logistics development. The operation is also

[58] Resolutions AG-6/16 and CII/AG-2/16, approved on 10 April 2016.

consistent with the Gender and Diversity Sector Framework Document (document GN-2800-8); the Agriculture and Natural Resources Management Sector Framework Document (document GN-2709-5); and the Sector Strategy to Support Competitive Global and Regional Integration (document GN-2565-4). Lastly, the operation includes elements from the Bank's framework for sustainable infrastructure, since for works designs it takes into account recent precipitation levels to ensure the infrastructure's resilience to the effects of climate change.

B. Objectives, components, and cost

1.24 **Objective.** The objective is to improve the productivity of the agriculture and livestock sector in Paraguay. The specific objective is to help improve and maintain the quality of production roads that serve the agroindustrial sector in the area of intervention. The program has a single component.

1.25 **Single component. Civil works and inspection (US$229.5 million).** Financing will be provided under this component for: (i) the paving and subsequent maintenance for a maximum period of four years[59] of 104 kilometers of system roads for the Cruce Pioneros-Paratodo segment and access roads to the towns of Santa Cecilia, Lolita, Campo Aceval, and Paratodo. This segment constitutes the representative sample for the program, and the planned interventions along it include improving the technical characteristics of the existing road by paving it with asphalt, adjusting embankments and engineering works for critical hydrological conditions using climate change adaptation criteria, and implementing road safety interventions.[60] At points of access to urban areas, universal accessibility criteria for people with disabilities will be incorporated into infrastructure design. There are also plans to finance works in addition to those for the representative sample: (ii) the paving and subsequent maintenance of approximately 115 kilometers of roads[61] with interventions similar to those for the roads in the representative sample; (iii) basic improvement works and subsequent maintenance along approximately 51 kilometers[62] with interventions involving the elevation of embankments, drainage, and bridges to adapt them to the area's hydrological conditions; (iv) technical and environmental monitoring; (v) environmental and social management of the operation, and expropriations in specific areas in order to expand the existing right-of-way to improve the geometric conditions of the roadway. The operation's social management includes a gender action plan to promote equity and foster job opportunities for women in the area of influence

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59 In the case of paving works, the maximum period of maintenance will be four years, and for basic improvement works, it will be three years.

60 Road safety audits of the paving works will be conducted with resources from the technical cooperation operation that supports this program.

61 The segments that were preidentified to be part of this intervention are: (i) National Route 22 in the Villa del Rosario-Volendam-San Pablo-intersection with National Route 11 (Cruce Yakare Ñe'e) segment and access road to Puerto Mbopicua, with an approximate length of 80 kilometers in the department of San Pedro; and (ii) Campo Aceval-Cruce Jordán segment, with an approximate length of 35 kilometers in the department of Presidente Hayes (optional link 1). These segments have to fulfill eligibility criteria (paragraph 2.5).

62 The segments that were preidentified for basic maintenance works are: (i) Cruce Jordan-Avalos Sanchez; and (ii) Paratodo-Cruce Douglas. These segments have to fulfill eligibility criteria (paragraph 2.5).

(optional link 19); (vi) payments for environmental services; and (vii) price escalations.

1.26 **Other costs (US$5.5 million).** In addition to the single component, financing is proposed for the following: (i) administration; (ii) establishment of the baseline; (iii) a strengthening plan for departmental road maintenance; (iv) preinvestment studies; (v) the final and impact evaluations; and (vi) external financial audits.

1.27 **Beneficiaries.** The main program beneficiaries will be users of the road system, particularly farmers and ranchers. Estimates show that there are more than 1,300 dairy farmers, including farming communities and Mennonite colonies, and approximately 6,000 cattle ranchers and farmers. The area of direct influence of the sample project is estimated to have a potential beneficiary population of at least 38,431 people (optional link 6). In addition, in the area of indirect influence of the sample project, there is an indigenous population of 4,851 people who would benefit from the operation.

C. Key results indicators

1.28 The main program outcomes will be verified through the following indicators: (i) reduction in vehicle operating costs (constant U.S. dollars per vehicle kilometer); (ii) reduction in average travel times (minutes per trip); and (iii) reduction of wasted milk production due to deficiencies in road infrastructure (liters of milk per year).

1.29 **Economic viability.** An economic feasibility analysis was done (optional link 2) for the project, based on a comparison of costs and benefits, at economic prices, in scenarios with and without the road intervention. The benefits were estimated by applying an analytical methodology widely used in road projects (consumer surpluses), quantifying both the savings in general transportation costs for normal traffic (both induced and derived), as well as the reduction in maintenance costs for the segment. The Highway Development and Management System (HDM-4) model was used to calculate project returns, considering: (i) investment costs, including direct socioenvironmental impact mitigation costs; (ii) vehicle operating costs, including time; and (iii) annual maintenance costs defined for scenarios with and without the operation.

1.30 The result of the analysis yielded an economic internal rate of return (EIRR) of 39.5% and an economic net present value (ENPV) of US$205.36 million. In addition, under the sensitivity analyses conducted, the project maintained an EIRR above the 12% discount rate (considering a 20% increase in investment cost, a 20% decrease in benefits, and a combined 10% increase in the investment cost and 10% decrease in benefits), thus confirming its robustness under less favorable scenarios. Table 1 summarizes the results of the cost-benefit and sensitivity analyses.

Table 1. Economic cost-benefit analysis

Project	Length (km)	Investment cost (US$ million)	ENPV (US$ million)	EIRR (%)			
				Baseline	Sensitivity analysis		
					Cost +20%	Benefit -20%	Cost +10% Benefit -10%
Paving of the Cruce Pioneros-Paratodo segment and access roads to Santa Cecilia, Lolita, and Campo Aceval	104.05	92.49	205.36	39.5%	35.2%	33.9%	34.6%

1.31 The benefits that have been calculated consider factors including the impact on the supply of local production and increases in value added for agriculture and livestock production and the effect of improved year-round serviceability on access to social services (schools, clinics, markets, etc.).

1.32 In addition, the impact of the interventions on improvements in agricultural and livestock productivity in the area of influence (Cruce Pioneros-Paratodo segment) will be analyzed based on two indicators: (i) average volume of milk per cow delivered to industrial plants; and (ii) average stocking rate per hectare for cattle (optional link 16).

II. Financing Structure and Main Risks

A. Financing instruments

2.1 **Modality.** The program will be financed by an investment loan under the modality of multiple works, since it includes works of technically similar characteristics but independent of each other, with a disbursement period of seven years from the effective date of the loan contract. This period includes one year for tendering, two years for paving works, and four years for maintenance.

2.2 **Cost and financing.** The program will have a total cost of US$235 million, of which US$185 million will be financed by the IDB from Ordinary Capital resources and US$50 million by the Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (KIF), which is administered by the Bank.[63]

2.3 The following table shows program cost and financing by investment category and funding source:

[63] The program preparation process was coordinated with the Export-Import Bank of Korea, which agreed with the operation's scope.

Table 2. Program cost and financing by investment category (*)

Cat.	Description	IDB (Ordinary Capital)	IDB (KIF)	TOTAL	
		(US$)	(US$)	(US$)	%
1	**Single component: Civil works and inspection**	**180,670,213**	**48,829,787**	**229,500,000**	**97.66**
1.1	Works for paving and maintenance of the Cruce Pioneros-Paratodo segment and access roads	78,058,951	21,097,014	99,155,965	42.19
1.2	Works for paving and maintenance of segments in addition to the sample	66,390,723	17,943,439	84,334,162	35.88
1.3	Basic works for improvement and maintenance of segments in addition to the sample	11,769,352	3,180,906	14,950,258	6.37
1.4	Technical inspection and environmental/social supervision	10,935,332	2,955,495	13,890,827	5.91
1.5	Environmental and social management plan	1,102,128	297,872	1,400,000	0.60
1.6	Payment for environmental services	1,562,190	422,214	1,984,404	0.84
1.7	Expropriations	842,340	227,660	1,070,000	0.46
1.8	Contingencies and escalations	10,009,196	2,705,188	12,714,384	5.41
2	**Other costs**	**4,329,787**	**1,170,213**	**5,500,000**	**2.34**
2.1	Program administration	3,542,553	957,447	4,500,000	1.91
2.2	Evaluations, studies, and audits	787,234	212,766	1,000,000	0.43
	Total	**185,000,000**	**50,000,000**	**235,000,000**	**100.00**

(*) The amounts include local taxes, which will be financed with proceeds from the loan in accordance with the Bank's policies.

2.4 Table 3 presents the disbursement schedule.

Table 3. Disbursement flow (US$ millions)

Financing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
IDB	43.25	73.68	35.38	17.13	5.67	5.55	4.33	**185.00**
KIF	11.69	19.91	9.56	4.63	1.53	1.50	1.17	**50.00**
Total	**54.94**	**93.59**	**44.95**	**21.76**	**7.21**	**7.05**	**5.50**	**235.00**
% of total	**23.38**	**39.83**	**19.13**	**9.26**	**3.07**	**3.00**	**2.34**	**100.00**

2.5 **Representative sample and eligibility criteria for projects.** For program evaluation, a representative sample of approximately 42.19% of the total program amount was analyzed. There are technical engineering designs, environmental and social assessments, and economic viability reports for this project, which consists of the paving of 104 kilometers of departmental roads from Cruce Pioneros to Paratodo, plus access roads to the towns of Lolita, Santa Cecilia, and Campo Aceval (paragraph 1.14). Other projects under the program[64] will be for departmental or national roads, based on the recent reclassification of roads conducted by the MOPC, or feeder roads associated with these national or departmental roads, and they will meet following eligibility criteria, subject to the Bank's no objection: (i) for paving works, be part of the national or departmental road system and be located in areas where the main productive activities are agriculture and/or cattle ranching, or that are supplementary or feeder roads for

[64] The MOPC has preidentified two segments that are potentially eligible for the program.

representative sample segments; (ii) for basic improvement works, be part of the same road system and supplement the paving interventions financed under the program; (iii) have technical and road safety standards that match the characteristics of the road's location and are appropriate for the natural surroundings and demand level; (iv) have an EIRR above 12%; (v) be classified as a category "B" operation in accordance with the Bank's classification in terms of social and environmental impact; and (vi) fulfill the requirements of the environmental and social management framework (optional link 14) for the program included in the environmental and social management report (required link 3), disqualifying any projects that require involuntary resettlement or are classified as category "A" operations in terms of environmental and social impact.

B. Environmental and social risks

2.6 The program has been classified as a category "B" operation, since its potential impacts and direct and indirect risks are moderate, temporary, and of localized scope, and for which feasible mitigation and offsetting measures exist and can be implemented. These program impacts are mainly related to the negative impacts typical of road construction works. The operation will be implemented on existing roads, with consolidated, delimited rights-of-way throughout the entire route. It does not involve deforestation of native stands or impacts to protected areas, other types of critical natural habitats, or cultural sites.

2.7 The main social risks and impacts associated with the segments in the program sample are related to temporary effects during the construction phase, due to the works to rehabilitate the route. This entails the expansion of the rights-of-way along part of the segment,[65] which will affect private lands, as well as upgrades (mostly poles and wiring), without causing impacts due to physical or economic displacement. Significantly, the area of indirect influence of the operation includes 27 indigenous communities/small villages that are considered to have a high degree of vulnerability. In addition, during construction, the intervention will have minor social impacts due to mobility restrictions for the local population, including indigenous communities, as well as the presence of outside workers, which could generate social tensions and a potential increase in gender violence. Other impacts and risks are expected from the road improvement works, related to occupational and community health and safety, potential road accidents involving users and workers, access restrictions as a result of earth-moving, heavy machinery traffic, and nuisances in the form of noise and dust.

2.8 During the operational phase, the main negative impacts and risks relate to inconvenience due to maintenance works; road accidents, particularly in areas near small towns; and animals being run over. Also, potential indirect impacts are associated with increases in land costs, deforestation, agricultural encroachment, and land use changes for agroindustrial activities.

2.9 During program preparation, there was a significant public consultation process based on a consultation plan, pursuant to the Bank's policies, including several rounds of in-person consultations with the affected populations and stakeholders, which were socioculturally appropriate in the case of indigenous communities. These consultations confirmed that there is interest and demand for road

[65] According to the guidelines of Expropriations Law 5389.

improvements in the region. There was a request to include the largest number of roads possible, which could mean changes in the route or type of intervention planned. In addition, for indigenous communities, a management plan was prepared with the recommendations that emerged from the various rounds.

2.10 The program prepared an environmental and social impact study, which includes measures to prevent, reduce, mitigate, and/or compensate for its potential environmental and social impacts. The operation includes an environmental and social management plan for the sample works, an environmental and social management framework, and a consultation plan for the works, to be defined during execution.

2.11 Both the environmental and social management plan and framework will be part of the program Operating Regulations (optional link 15), establishing environmental and social requirements to ensure that the program is executed in compliance with the Bank's safeguards and according to the conditions set forth in Annex B to the environmental and social management report (required link 3).

C. Fiduciary risks

2.12 The Ministry of Public Works and Communications (MOPC), acting through the MOPC project execution unit (PEU-MOPC), has experience in the application of Bank policies and procedures. However, areas for improvement have been identified, such as planning, organization, internal control, and personnel and property management, which, according to the latest Institutional Capacity Assessment System study, have medium levels of development and risk. This PEU-MOPC, acting through the Office of the Project Manager for Roads (GPV), is executing loans 2934/OC-PR, 2935/BL-PR, 3372/OC-PR, 3837/OC-PR, and 4402/OC-PR. A medium risk was identified in terms of the responsiveness of this structure, considering the operational overload in the execution of all the operations under its responsibility. This could entail limited monitoring of the investment and delays in program procurement. To mitigate this risk, a consulting firm for technical and fiduciary support (ECATEF)[66] will continue to assist the PEU-MOPC, particularly the GPV, in the overall management and coordination of the execution of the projects under its responsibility (paragraph 3.3).

D. Other risks and key issues

2.13 **Additional costs.** A medium risk of an increase in the cost of the program was identified and has been mitigated from the start of the design process by using conservative assumptions, including contingencies and/or projected cost escalations (reference costs obtained from similar, currently executing works were used); and support from the Bank and the MOPC in preparing studies and engineering designs for the representative sample project. The Bank approved a nonreimbursable technical cooperation operation (ATN/OC-17347-PR) to support the MOPC with the technical designs of the works that are not part of the representative sample, the review of designs, and assistance during works execution.

[66] The contracting of this firm is currently being funded under loan 3372/OC-PR, but it supports the execution of the other operations by the GPV of the PEU-MOPC.

2.14 **Sustainability of long-term investments.** A high risk has been identified with respect to the timely availability of resources for the long-term maintenance of infrastructure. In the short to medium term, the implementation of rehabilitation and maintenance contracts is planned for this operation. Under these contracts, the company awarded the rehabilitation works is also subsequently responsible for their maintenance during the period specified in the contract (estimated at four years). Significantly, the MOPC's current strategy for the maintenance of the entire paved road system is based on gradually migrating toward third-party rehabilitation and maintenance contracts or service-level maintenance management (optional link 7). This is because of positive experiences with these types of contracts, based on an analysis by the MOPC and the World Bank (optional link 20). Likewise, and with a view to medium- to long-term sustainability, the Bank is supporting the MOPC[67] and will continue to support it to foster the establishment of a road fund intended to ensure funds for the conservation and maintenance of the country's road system. Therefore, this operation includes resources to strengthen the MOPC Road Maintenance Department and local governments for the implementation of a sustainable maintenance plan.

2.15 **Delays in execution of works.** A medium risk is anticipated for delays in the execution of works, considering the current high demand in the construction market and the historical performance of the executing agency in the execution of infrastructure works and programs (optional link 3). To mitigate this risk, the Bank is working with the MOPC[68] to implement tools for monitoring and operational management of works, optimize information management, conduct timely follow-up, and issue early alerts to support execution of the various works by that agency. The period for the physical startup of the works planned as part of the program will be three years from the entry into force of the loan contract.

III. Implementation and Management Plan

A. Summary of implementation arrangements

3.1 **Borrower and executing agency.** The borrower will be the Republic of Paraguay. The borrower, acting through the MOPC, will be the executing agency. Within the MOPC, the Office of the Project Manager for Roads (GPV) of the PEU-MOPC, which reports to the Office of the Deputy Minister for Public Works and Communications, will be responsible for program execution, and its main function will be the technical, administrative, and operational management of the program. Execution actions will be coordinated with line units within the MOPC structure.

3.2 The PEU-MOPC, acting through the GPV, will be responsible for the program's technical, administrative, and operational management, including these tasks: (i) timely presentation of evidence of fulfillment of the conditions precedent to the first disbursement and the special execution conditions; (ii) contracting and procurement of works, goods, and services; (iii) processing of loan disbursements with the Bank; (iv) performance of the external audit; (v) delivery of operational

[67] As part of loans 3363/OC-PR and 3364/CH-PR.

[68] As part of technical cooperation operation ATN/OC-17418-PR, the MOPC has already implemented a system to certify works electronically, which will be supplemented with additional modules for management and monitoring of works.

plans to the Bank (including the financial plan, procurement plan, annual work plan, etc.); (vi) delivery of reports (including audit, status, and evaluations) and other documents to the Bank; (vii) assistance in the supervision and monitoring of works and service contracts; and (viii) acting as liaison with the Bank.

3.3 To provide support to the PEU-MOPC, and especially the GPV, individual consultants, specialized agencies, and/or a consulting firm for technical and fiduciary support (ECATEF) with experience in executing similar projects will be engaged, in order to assist with the preparation of technical specifications for the contracting of services and works, planning and programming of program activities, review of designs, works technical and environmental supervision, procurement and financial control, socioenvironmental considerations, institutional relations, monitoring and evaluation, etc.

3.4 The contractors and works-inspection firms must each have at least one permanent environmental and social specialist per works segment on their team to verify compliance with the General Environmental Technical Specifications provided for in the applicable specifications, conditions, and manuals.

3.5 The program Operating Regulations will be consistent with MOPC and Bank policies and procedures, as well as with the laws and financial practices in force in Paraguay. The document will cover at least the following items: (i) the program's execution and coordination mechanisms; (ii) the institutional, organizational, and functional framework; (iii) the programming, monitoring, control, and evaluation mechanisms; (iv) the financial management, budget, accounting, and payment mechanisms; (v) procurement management; and (vi) exchange control procedures. In terms of environmental and social management, the documents referred to in the environmental and social management report (required link 3) will be included in the Operating Regulations.

3.6 **Procurement of works, goods, and services.** Procurement will be carried out in accordance with the Policies for the Procurement of Goods and Works financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank (document GN-2350-9), both of March 2011, or their future updates. The loan contract and procurement plan (required link 4) establish the review modality, processes, and monitoring of procurement processes under the project. All procurement and/or contracting processes will be subject to ex ante review by the Bank.

3.7 **As special contractual conditions precedent to the first disbursement of the loan, evidence will be submitted, to the Bank's satisfaction, of the following: (i) the entry into force of the program Operating Regulations (optional link 15), in accordance with the terms agreed upon with the Bank; and (ii) the assignment of the project to the project execution unit, by means of a ministerial resolution.** These conditions are considered essential to ensure effective program execution and for the borrower to demonstrate that it is prepared with a technical and administrative team in place to begin execution of the operation.

3.8 **Disbursements.** The loan will be disbursed under the advance of funds modality. The frequency of advances will be determined on the basis of the operation's financial programming, which will be updated periodically by the PEU-MOPC. The Bank may process a new advance of funds when at least 80% of the total funds disbursed in the form of advances have been justified. The financial review of disbursement requests will be conducted on an ex post basis, as anticipated in the external audit.

B. Summary of arrangements for monitoring results

3.9 The monitoring and evaluation plan will support program execution pursuant to the targets and progress indicators defined in the results matrix. The following tools will be used for these purposes: (i) the program execution plan, the procurement plan, and annual external audits; (ii) semiannual status reports, including monitoring for impact and outcome indicators, component execution, and fulfillment of environmental, social, and occupational safety and health requirements, particularly for the plan to support indigenous communities and the environmental and social management plan; (iii) the impact evaluation;[69] (iv) the program's final evaluation (paragraph 3.10); and (v) audited financial statements.

3.10 The executing agency will submit a final evaluation to the Bank when 90% of the program disbursements have been released. This evaluation will include, at a minimum: (i) an ex post cost-benefit analysis, using the methodology applied in the ex ante analysis, and including a comparison of the outcomes to verify the assumptions and parameters considered, all according to the details specified in the monitoring and evaluation plan (required link 2); (ii) the results of the financial execution; (iii) fulfillment of the targets established, pursuant to the agreed upon outcome indicators; and (iv) fulfillment of contractual obligations.

[69] Based on a difference methodology, the evaluation will measure the impact of the operation by determining causality and the changes generated by the project at the level of improvements in agricultural productivity (optional link 16).

Development Effectiveness Matrix		
Summary	PR-L1164	
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Productivity and Innovation -Economic Integration -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Roads built or upgraded (km)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2958	i) Productive and resilient infrastructure and the result of improving the coverage of the road network; ii) Transversally support the challenges of gender, diversity and indigenous populations, and innovation and technology.
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)		1.19; 1.4
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution	9.6	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	3.6	
3.3 Results Matrix Quality	3.0	
4. Ex ante Economic Analysis	10.0	
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	1.0	
5. Monitoring and Evaluation	8.2	
5.1 Monitoring Mechanisms	1.8	
5.2 Evaluation Plan	6.4	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
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	
IV. IDB´s Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury. Procurement: Information System, Price Comparison, National Public Bidding.
Non-Fiduciary	Yes	Strategic Planning National System.
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	Technical Cooperation PR-T1271

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

UPGRADE AND CONSERVATION PROGRAM FOR AGROINDUSTRIAL CORRIDORS (PR-L1164)
Evaluability Note

The main goal of the operation is to contribute to improving the productivity of the agricultural/husbandry sector of Paraguay. To achieve this, the proposal defines one specific area of intervention that proposes to contribute to the improvement and maintenance of the quality of the productive roads that serve the agribusiness in the area of intervention.

The project proposal diagnosis describes that Paraguay has a logistic system based mostly on the road network since the country has no direct exit to the ocean. However, the quality of the roads is in depreciation, both in the occidental (known as Chaco) and oriental regions. This situation has impacted the logistic costs of the country and created challenges to agricultural/husbandry productivity. Moreover, diagnosis states that Paraguay has an economy highly dependent on the agricultural and husbandry sectors and that significant portion of this production comes from the central Chaco. Finally, the diagnosis identifies some vulnerabilities related to the Climate Changes - which can increase the level of precipitation and affect the road service - and some gender challenges in the country/sector. In this sense, solutions are aligned to problems, although no evidence is presented for the country on the effectiveness of some proposed solutions.

The economic analysis uses the HDM-4 model and provides a quantification of some economic benefits. The study quantifies benefits associated with the reduction of the vehicle operating cost and of the travel time for a portion of the works. The model assumptions are based on the road network and local sector data. The analysis concludes that the Project has an internal rate of return of 39.5%.

Monitoring relies mainly on executing agency reports and studies. The evaluation plan includes an impact evaluation. The evaluation aims to quantify the effect of the improvement of the roads' quality on the dairy and livestock productivity.

RESULTS MATRIX

Project objective:	The objective is to improve the productivity of the agriculture and livestock sector in Paraguay. The specific objective is to help improve and maintain the quality of production roads that serve the agroindustrial sector in the area of intervention.

EXPECTED IMPACT

Indicators	Unit of measure	Baseline	Baseline year	Final target	Target year	Means of verification	Comments
Impact 1: Help improve the productivity of the agriculture and livestock sector in Paraguay.							
Average volume of milk per cow delivered to industrial plants in the area of influence of the Cruce Pioneros-Paratodo segment and access roads	Liters per day per cow	TBD	2020	1.12 x baseline	2026	Baseline study and final evaluation. Responsibility: MOPC	During 2020, data will be collected for the baseline.
Average stocking rate per hectare for cattle in the area of influence of the Cruce Pioneros-Paratodo segment and access roads	Head per hectare	TBD	2020	1.10 x baseline	2026	Baseline study and final evaluation. Responsibility: MOPC	During 2020, data will be updated for the baseline.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline	Baseline year	Final target	Target year	Means of verification	Comments
Outcome 1: To help improve and maintain the quality of production roads that serve the agroindustrial sector in the area of intervention.							
Average vehicle operating costs a. Paving and maintenance of the Cruce Pioneros-Paratodo segment and access roads b. Other paving and maintenance works c. Basic works for upgrading and maintenance	Constant U.S. dollars per vehicle kilometer	a. 22.35 b. TBD c. TBD	a. 2019 b. 2020 c. 2020	a. 13.79 b. BL x 0.65 c. BL x 0.80[1]	a. 2026 b. 2026 c. 2026	Traffic study, Highway Development and Management Model (HDM-4). Responsibility: MOPC	Type of vehicle: heavy trucks. Baseline indicators for segments that are not part of the representative sample will be defined in 2020, once technical studies are completed.
Average travel times a. Paving and maintenance of the Cruce Pioneros-Paratodo segment and access roads b. Other paving and maintenance works c. Basic works for upgrading and maintenance	Minutes	a. 149.85 b. TBD c. TBD	a. 2019 b. 2020 c. 2020	a. 86.71 b. BL x 0.60 c. BL x 0.80[2]	a. 2026 b. 2026 c. 2026		
Liters of milk wasted during transportation due to deficiencies in road infrastructure in the area of influence of the Cruce Pioneros-Paratodo and access roads project	Liters of milk per year	2,000,000	2018	0	2026	Data from Cooperativa Chortitzer. Responsibility: MOPC	

[1] This percentage variation is related to the percentage variations projected for similar works in Bank-financed programs to upgrade minor roads in Paraguay.

OUTPUTS

Outputs	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Final target	Means of verification	Comments
Component 1: Civil works and inspection													
Kilometers of system roads paved by the project (representative sample)	Kilometers	0	2019	0	0	104	0	0	0	0	104	Technical and environmental inspection reports. Responsibility: MOPC	
Kilometers of system roads paved by the project (not part of the representative sample)	Kilometers	0	2019	0	0	80	35	0	0	0	115		
Kilometers of system roads upgraded with basic works	Kilometers	0	2019	0	0	0	51	0	0	0	51		
Kilometers of system roads maintained by the project	Kilometers	0	2019	0	0	184	270	270	270	270	270		
Women trained	Number	0	2019	0	20	20	20	10	0	0	70		Pro-gender

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Paraguay
Name:	Program to Rehabilitate and Maintain Agroindustrial Corridors
Project number:	PR-L1164
Executing agency:	Ministry of Public Works and Communications (MOPC)
Prepared by:	Fernando Glasman, Jorge Seigneur, and Jorge Luis González (Fiduciary Specialists)

I. EXECUTIVE SUMMARY

1.1 The institutional assessment for the program's fiduciary management was based on: (i) the fiduciary context of the country; (ii) the results of the fiduciary risk assessment and Project Risk Management Workshop; (iii) the results of the institutional capacity assessment of the executing agency, conducted in September 2014; and (iv) ongoing evaluation by the executing agency through visits to perform fiduciary supervision of loans in execution. The fiduciary agreements applicable to the execution of this program are based on this assessment.

II. FIDUCIARY CONTEXT OF THE COUNTRY

2.1 Paraguay's national financial management systems are generally considered to present a medium level of development. Nonetheless, they need to be supplemented for purposes of executing Bank-financed projects. Specific financial reports are currently produced through auxiliary accounting systems. Financial control tools, such as the Integrated Financial Management System (SIAF), the Integrated Accounting System (SICO), and other subsystems, enable executing agencies to transfer payments to suppliers through the Central Bank of Paraguay under acceptable conditions. External control is currently being performed through independent audit firms.

2.2 Paraguay's national public procurement system has shown great progress in terms of efficiency and transparency in the past 10 years, as a result of the creation of its lead agency, the National Public Procurement Office. This enabled the implementation of a procurement transaction platform with electronic processing that includes online reverse auctions, a supplier system, and a statistical information system. Paraguay's Public Procurement Information System (SICP) has been fully used in the Bank's operations, in conjunction with the country online reverse auction and competitive tendering subsystems, for the amounts and categories specified in the agreement on the use of those subsystems signed on 17 June 2014.

III. Fiduciary Context of the Executing Agency

3.1 The executing agency will be the MOPC project execution unit (PEU-MOPC), which reports to the Office of the Deputy Minister of Public Works. This unit will represent the executing agency in the administrative aspects of the program, supported by the Office of the Project Manager for Roads (GPV), which is also assigned to the execution of loans 2934/OC-PR, 2935/BL-PR, 3372/OC-PR, 3837/OC-PR, and 4402/OC-PR. To support the PEU-MOPC, particularly the Project Division of the Highways Directorate, in the overall management and coordination of the execution of the projects under its responsibility, a technical and fiduciary support consulting firm will be retained. This will be financed with partial funds from each operation.

3.2 Based on the institutional capacity assessment and knowledge of the fiduciary aspects of the PEU-MOPC, this unit needs its core personnel to be reinforced in the technical and fiduciary areas, to be able to absorb the greater operational demands that this operation will entail. This situation is considered a crosscutting factor that is very likely to generate risks for attaining the program's objectives within the scope, timeframe, and costs (quality) initially estimated. As this is seen as a problem, it will be mitigated as indicated in paragraph 4.2.

IV. Fiduciary Risk Evaluation and Mitigation Actions

4.1 Based on the assessments of the PEU-MOPC and the Bank's experience to date, since this unit is currently executing other Bank-financed programs, opportunities for improvement should focus on:

- Designing and preparing profiles for positions at the PEU-MOPC, as well as implementing program Operating Regulations.
- Strengthening the accounting and internal control areas regarding the Bank's financial management policies.

4.2 **Procurement management.** For the Goods and Services Management System (SAB), the Institutional Capacity Assessment System has reported satisfactory development and low risk. Nonetheless, a medium risk is identified in possible delays in procurement processes as experienced with the Highway Directorate in the execution of loans 2934/OC-PR, 2935/BL-PR, and 3327/OC-PR, during which some of the probability factors indicated in the matrix materialized. Accordingly, the situation mentioned in paragraph 3.2 is a problem requiring mitigation measures. It is therefore proposed to provide the PEU-MOPC, in a timely manner, with personnel suitable for implementing the program and fulfilling the proposed objectives. The PEU-MOPC will be assisted by a consulting firm contracted for technical and fiduciary support (ECATEF), which will provide technical, fiduciary, and logistics management personnel who satisfy the profiles defined by the PEU and required for program execution.

4.3 **Financial management.** Basic functions will be established in the PEU-MOPC to mitigate risks of overlapping functions with the various operations being executed within this unit.

V. Considerations for the Special Provisions of the Contract

5.1 The following agreements and requirements should be considered in the special clauses:

5.2 The opening of a special bank account for the program's exclusive use.

5.3 The PEU-MOPC will submit annual financial statements, under specific terms of reference acceptable to the Bank, within 120 days following its fiscal year-end. The final audit report will be submitted within 120 days following the expiry of the last disbursement period.

5.4 According to the provisions of Article 4.10 of the General Conditions, the parties agree that the exchange rate applicable will be as indicated in section (b)(i) of this article. The agreed upon exchange rate will the one in effect on the date on which the approval currency or disbursement currency is converted to the borrower's local currency. The agreed upon exchange rate to be used for determining the equivalence of expenditures incurred in local currency and chargeable to the local contribution will be the exchange rate in effect on the date on which the MOPC or any other legal entity or individual that has been delegated the authority to incur expenditures makes the respective payments to the contractor, provider, or beneficiary. To determine the equivalency of the reimbursement of expenditures from the loan proceeds, the agreed upon exchange rate will be the one in effect on the date of the reimbursement request.

VI. Fiduciary Agreements and Requirements for Procurement Execution

6.1 The procurement policies applicable to this loan are contained in documents GN-2349-9 and GN-2350-9, or their subsequent updates. The Bank's Board of Executive Directors also approved, through document GN-2538-11, the use of the online reverse auction and competitive tendering subsystems of Paraguay's Public Procurement System (Law 2051/03). The use of other country systems that may be approved after project approval will be automatically applicable and will be indicated in the procurement plan.

A. Procurement execution

6.2 **Procurement of works, goods, and nonconsulting services.** Works, goods, and nonconsulting services[1] subject to international competitive bidding (ICB) will be procured using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be executed using national bidding documents agreed upon with the Bank. The program sector specialist is responsible for reviewing the technical specifications for procurement. Initially, no direct contracting is anticipated.

6.3 **Selection and contracting of consultants.** Consulting services contracts generated under the program will be executed using the standard request for proposals issued by or agreed upon with the Bank. The program sector specialist is

[1] Policies for the Procurement of Goods and Works financed by the Inter-American Development Bank (document GN-2349-9), paragraph 1.1: Nonconsulting services are treated as goods.

responsible for reviewing the terms of reference for the contracting of consulting services.

a. **Selection of individual consultants.** The selection of individual consultants will be carried out pursuant to the respective procurement policies (document GN-2350-9), or their subsequent updates.

b. **Training.** Procurement workshops will be offered.

c. **Use of country system.** Pursuant to document GN-2538-11 of October 2013, use of the online reverse auction and competitive tendering subsystems of Paraguay's Public Procurement System (SCSP) will be applicable in Bank-financed operations, as follows:

(i) In all goods and nonconsulting service contracts subject to online reverse auction under the SCSP, provided the amount is below the threshold set by the Bank for application of the shopping method for off-the-shelf goods (US$250,000).

(ii) In all works contracts for amounts below the threshold set by the Bank for application of the shopping method for custom goods (US$250,000), and contracts for goods and nonconsulting services up to the amount set by the Bank for application of the shopping method for custom goods and services (US$50,000).

(iii) Contracts for amounts equal to or above the aforementioned thresholds will be governed by the Bank's policies (document GN-2349-9).

6.4 Section 1 of the Bank's policies (document GN-2349-9) will be applicable in all contracts executed regardless of amount or procurement modality. Any system or subsystem approved subsequently will be applicable to the operation. The operation's procurement plan and its updates will indicate which contracts will be executed through approved country systems.[2]

6.5 **Domestic preference.** Not anticipated for this operation.

Table 1. Thresholds for ICB and international shortlist (US$)

Method	ICB for works	ICB for goods and nonconsulting services	International shortlist for consulting services
Threshold	3,000,000	250,000	200,000

[2] If the Bank validates another system or subsystem, this will be applicable to the operation, pursuant to the provisions of the loan contract.

Table 2. Amounts by type of contracting[3]

Activity	Type of tender	Estimated date	Estimated amount (US$ thousands)
Works			
Paving and maintenance of the Cruce Pioneros-Paratodo segment (104 kilometers)	**ICB**	Year 1	99.15
Paving and maintenance of the Villa del Rosario-intersection with National Route 11 segment	**ICB**	Year 1	60.30
Paving and maintenance of other segments in the Chaco	**ICB**	Year 2	24.03
Basic works for rehabilitation and maintenance in the Chaco	**ICB**	Year 2	14.95
Consulting services			
Inspection of paving and maintenance of the Cruce Pioneros-Paratodo segment	**QCBS[4]**	Year 1	6.98
Inspection of paving and maintenance of the Villa del Rosario-intersection with National Route 11 segment	**QCBS**	Year 1	4.22
Inspection of paving and basic rehabilitation works in other segments in the Chaco	**QCBS**	Year 2	2.72
Technical and fiduciary support consulting firm for the program	**QCBS**	Year 3	4.50

6.6 **Procurement supervision.** Procurement and/or contracting processes governed by Procurement Policies GN-2349-9 and GN-2350-9 will be reviewed by the Bank ex ante, after consulting the Ministry of Finance in this regard. The supervision of all procurement and/or contracting processes governed by the online reverse auction and competitive tendering subsystems of Paraguay's Public Procurement System (document GN-2538-11) will be processed through the country system.[5]

6.7 **Special provisions.** No special provisions are anticipated, other than those specified in paragraph 5.1.

6.8 **Records and files.** Program reports will be prepared and filed using systems, formats, or procedures that the Bank stipulates or that have been agreed upon with the Bank.

VII. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL EXECUTION

A. Financial management

7.1 **Programming and budget.** The PEU-MOPC will centralize the coordination of program execution, supported by other MOPC units and departments, as necessary. The budget will be programmed, managed, and executed by the PEU-MOPC, under the zero-based budgeting system.

7.2 **Accounting and information systems.** Paraguay uses modified cash accounting; however, for record-keeping in Bank-financed projects, it is working on a cash basis.

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3 Works can be tendered in lots, based on efficiency and effectiveness criteria.

4 Quality- and cost-based selection.

5 Depending on the extent of use of the system, supervision may be supplemented with program audits, in which case it should be mentioned in this annex.

7.3 **Information systems.** The PEU-MOPC will have direct access to the SIAF, since it has the rank of financial management subunit. Given that the country systems are unable to issue the reports the Bank needs, these will be prepared using different systems, which will require additional work from this unit.

7.4 **Disbursements and cash flow.** Program disbursements will be made through advances of funds, which must be supported by a detailed monthly financial plan covering a period of up to six months, and another long-term plan, making it possible to determine the program's actual needs arising from the execution plan, annual work plan, and procurement plan. The second and subsequent disbursements will require justification of 80% of funds already advanced.

7.5 **Exchange rate.** The exchange rate agreed upon with the executing agency for financial reporting will be the conversion rate, unless the borrower decides otherwise during loan negotiations.

7.6 **Internal control and internal audit.** With respect to internal control, the 2018 second-semester report of the Standard Internal Control Model of Paraguay (MECIP) produced a score of 4.7, corresponding to an adequate performance level. This has been published on the website of the Public Audit Office, which monitors internal control of the MOPC. Nevertheless, the MOPC internal audit unit does not comprehensively include Bank-financed projects.

7.7 **External control and reporting.** The executing agency will submit annual auditing reports for the program, prepared by an independent audit firm acceptable to the Bank, under the terms of reference previously approved by the Bank. The program financial statements include: statement of cash flows, statement of cumulative investments, notes to those statements, and the declaration by the executing agency. The audit report will include an evaluation of the internal control system.

7.8 The program will require selection of an independent audit firm rated at the "Plus" level.

7.9 The cost of the external audits, estimated at US$320,000 for the seven years anticipated for loan execution, will be financed with the loan proceeds.

7.10 **Financial supervision plan.** Financial supervision may be adjusted in response to program execution and audit reports. Supervision will be provided through three methods.

Table 3. Financial supervision plan

Nature and scope	Frequency
Financial audit and presentation of financial statements	Annually
Review of disbursement requests and attached reports	Twice or three times per year
Inspection visit/analysis of internal controls and control environment at the executing agency	Annually

7.11 **Execution mechanism.** The PEU-MOPC, in coordination with the Office of the Deputy Minister of Finance, will be responsible for: (i) coordinating all program-related activities; (ii) preparing financial execution reports; (iii) submitting requests for no objection and disbursement of the loan proceeds and keeping accounting records; (iv) implementing and keeping a dedicated financial system for the program that ensures the correct use of resources, and keeping transaction records; and (v) preparing and updating required reports, prior to presentation to the IDB.

PROGRAM TO REHABILITATE AND MAINTAIN AGROINDUSTRIAL CORRIDORS

PR-L1164

CERTIFICATION

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the operation received the non-objection for financing by the **Korea Infrastructure Development Co-Financing Facility for Latin America and the Caribbean (KIF)** for up to **US$50,000,000** confirmed by Kim Hyun (ORP/GCM), October 15, 2019.

Certified by: Original signed — 10/18/2019

Sonia M. Rivera
Chief
Grants and Co-Financing Management Unit
ORP/GCM

Date

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/19

Paraguay. Loan ____/OC-PR to the Republic of Paraguay. Program to Rehabilitate and Maintain Agroindustrial Corridors

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 the Republic of Paraguay, as borrower, for the purpose of granting it a financing to cooperate in the execution of the Program to Rehabilitate and Maintain Agroindustrial Corridors. Such financing will be for an amount of up to US$185,000,000 from the Ordinary Capital resources of the Bank, 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)

LEG/SGO/CSC/EZSHARE-746870777-12179
PR-L1164

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/19

Paraguay. Loan ____/KI-PR to the Republic of Paraguay. Program to Rehabilitate and Maintain Agroindustrial Corridors

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, acting as the Administrator of the Korea Infrastructure Development Co-financing Facility for Latin America and the Caribbean ("the Facility"), to enter into such contract or contracts as may be necessary with the Republic of Paraguay, as borrower, for the purpose of granting it a financing to cooperate in the execution of the Program to Rehabilitate and Maintain Agroindustrial Corridors. Such financing will be for an amount of up to US$50,000,000 from the Facility, 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)

LEG/SGO/CSC/EZSHARE-746870777-12180
PR-L1164