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DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PARAGUAY

UPGRADE AND MAINTENANCE PROJECT FOR NATIONAL ROUTE PY12, NANAWA JUNCTION TO GENERAL BRUGUEZ SEGMENT AND ACCESS ROADS

(PR-L1174)

LOAN PROPOSAL

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REQUIRED

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2. Monitoring and evaluation plan
3. Environmental and social management report
4. Procurement plan

OPTIONAL

1. Technical studies of the project
2. Economic analysis of the project
3. Project integration annex
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ABBREVIATIONS

BCP	Central Bank of Paraguay
CAPEX	Capital expenditures
ECLAC	Economic Commission for Latin America and the Caribbean
EIRR	Economic internal rate of return
ENPV	Economic net present value
ESA	Environmental and social analysis
ESMP	Environmental and social management plan
FONPLATA	River Plate Basin Development Fund
GDP	Gross domestic product
HDM-4	Highway Development and Management Model
ICB	International competitive bidding
IMF	International Monetary Fund
LIBOR	London Interbank Offered Rate
MOPC	Ministry of Public Works and Communications
OECD	Organisation for Economic Co-operation and Development
PEU	Project execution unit
PY12	National Route PY12
PY9	National Route PY9
SCSP	Sistema de Contrataciones Públicas de Paraguay [Paraguay's public procurement system]
SENACSA	Secretaría Nacional de Calidad y Salud Animal [National Department of Animal Quality and Health]
SIAF	Integrated financial management system
SNIP	Sistema Nacional de Inversión Pública [Paraguay's national public investment system]
USAID	United States Agency for International Development

PROJECT SUMMARY

PARAGUAY
UPGRADE AND MAINTENANCE PROJECT FOR NATIONAL ROUTE PY12, NANAWA JUNCTION TO GENERAL BRUGUEZ SEGMENT AND ACCESS ROADS
(PR-L1174)

<table>
<tr><th colspan="5">Financial Terms and Conditions</th></tr>
<tr><td colspan="3">Borrower:</td><td colspan="2">Flexible Financing Facility[a]</td></tr>
<tr><td colspan="3">Republic of Paraguay</td><td>Amortization period:</td><td>25 years</td></tr>
<tr><td colspan="3">Executing agency:</td><td>Disbursement period:</td><td>7 years</td></tr>
<tr><td colspan="3">Republic of Paraguay, through the Ministry of Public Works and Communications (MOPC)</td><td>Grace period:</td><td>7.5 years[b]</td></tr>
<tr><td>Source</td><td>Amount (US$)</td><td>%</td><td>Interest rate:</td><td>LIBOR-based</td></tr>
<tr><td rowspan="3">IDB (Ordinary Capital):</td><td rowspan="3">215,000,000</td><td rowspan="3">100</td><td>Credit fee:</td><td>[c]</td></tr>
<tr><td>Inspection and supervision fee:</td><td>[c]</td></tr>
<tr><td>Weighted average life:</td><td>15.17 years</td></tr>
<tr><td>Total:</td><td>215,000,000</td><td>100</td><td>Approval currency:</td><td>United States dollar</td></tr>
<tr><th colspan="5">Project at a Glance</th></tr>
<tr><td colspan="5">Project objective/description: To help boost Paraguay’s competitiveness through the provision of road infrastructure suited to all weather conditions and safe, resilient, and reliable transportation services on National Route PY12 (stage I) and access roads. The specific objectives are to: (i) help improve the level of service and quality of the highway; and (ii) ensure safety and serviceability year-round to guarantee access to markets and essential health and education services.</td></tr>
<tr><td colspan="5">Special contractual conditions precedent to the first disbursement of the loan proceeds: The MOPC will present evidence, to the Bank’s satisfaction, of the: (i) approval and entry into effect of the program Operating Regulations under the terms and conditions previously approved by the Bank; and (ii) assignment of the project to the project execution unit by ministerial resolution (paragraph 3.6). See other contractual conditions in Annex B of the environmental and social management report (required link 3).
Special contractual conditions of execution: See special contractual conditions in Annex B of the environmental and social management report (required link 3).</td></tr>
<tr><td colspan="5">Exceptions to Bank policies: None.</td></tr>
<tr><th colspan="5">Strategic Alignment</th></tr>
<tr><td>Challenges:[d]</td><td colspan="4">SI ☒ PI ☒ EI ☒</td></tr>
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</table>

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

(b) Under the flexible repayment options of the Flexible Financing Facility, changes to 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.

(c) 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.

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

(e) 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 **Socioeconomic framework.** For the past 15 years, Paraguay's annual economic growth has averaged around 4.5%, which has translated into a 46.4% increase in the per capita gross domestic product.[1] However, this growth was accompanied by significant volatility in the country's GDP, which is highly dependent on climate factors and the economies of neighboring countries,[2] and it has not translated into significant productivity gains.[3] The Central Bank of Paraguay (BCP) estimates that as a consequence of the economic impacts of the COVID-19 health crisis, the Paraguayan economy will contract 2.5% in 2020, a sharp drop from the estimated growth of 4.1% projected before the crisis.

1.2 **Competitiveness and productivity.** Paraguay's economy is based on the agricultural sector, which on average accounts for 9.2% of GDP. In all, 77% of foreign exchange earnings (excluding earnings from the export of electrical power) are from agricultural products and byproducts.[4] Beef production has increased considerably, making the country one of the world's top 10 exporters,[5] with 347,000 tons of exports (US$1.023 billion[6]) in 2019. Paraguay's primary agricultural sector growth rate of 1.6% is higher than the regional average for the 1980-2012 period (1.2%), but the productivity rate is still 50% lower than the average of the OECD countries.[7]

1.3 **The Chaco region and production there.** The Paraguay River divides the country geographically into two regions: the eastern and western (also known as the Chaco) regions. The Chaco region covers 61% of Paraguay's total land area, but is home to only 3% of the population, as well as approximately 44% of the country's total head of beef cattle. In all, 47% of Paraguay's beef exports are produced there.[8] In the 2018-2023 period, the number of beef cattle in the region is expected to grow 4% annually, far outpacing the eastern region, for which the estimated rate is 0.5%.[9]

1.4 **Socioeconomic diversity in the Chaco and eastern regions.** Both regions are socioeconomically diverse, which intensifies their problems and potential. In the OECD well-being framework for developing countries, which assesses the quality of life and material conditions of the Paraguayan population, Chaco scores lower than the eastern region and the country overall in key dimensions like housing and infrastructure; environment; education and skills; health; consumption possibilities; and employment. The provision of basic services varies significantly, and the

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1 2004-2018 period. Source: BCP and the IMF.

2 The years 2009 and 2012, in which there were severe droughts, were years of economic recession.

3 IDB Group Country Strategy with Paraguay 2019-2023 (document GN-2958).

4 BCP, 2019.

5 United States Department of Agriculture, 2019.

6 National Department of Animal Quality and Health (SENACSA), 2017.

7 Nin-Pratt et al., IDB, 2015.

8 SENACSA, 2017.

9 Optional link 4. MOPC, 2018.

largest coverage gaps in public health, education, and road infrastructure are found in the Chaco region.[10] According to the most recent population census, 78.5% of households in the Chaco region have at least one unmet basic need, far more than in the eastern region (53.9%).[11]

1.5 **Access to essential services in the Chaco region.** Essential services in the Chaco region are limited in terms of both availability and access. For example, just 37% of Paraguay's poor and hard-to-reach areas have adequate health service coverage.[12] The limited availability of, and restricted access to, existing medical centers is exacerbated by how long it takes to travel to the primary care clinics, in most cases much longer than two hours (which affects only 35.4% of the country as a whole). This situation has come to the fore in the ongoing COVID-19 pandemic, where the coverage and efficiency of basic services are underlying factors in the persistence of health challenges. Furthermore, an analysis of territorial gaps in access to education[13] showed that in 94% of the Chaco region it takes more than 30 minutes to get to a primary school by car. These distances directly impact school absenteeism, compounded by the road infrastructure's vulnerability to rain and flooding.

1.6 **National and regional road network connectivity.** Since Paraguay is a landlocked country, and therefore highly dependent on road transportation, foreign trade freight travels an average of 1,350 km to and from seaports. Accordingly, the costs of road transportation and the logistics chain significantly impact the country's productive and export activity.[14,15] For example, road and river transportation, which move 60% of the country's trade, account for 7.5% of the market price, which is a higher percentage than total transportation costs in the member countries of the Latin American Integration Association (except for Bolivia).[16] These costs increase not just due to the poor connectivity and service quality, but also due to the vulnerability of the roads used in production to floods, which contribute to losses that could constitute more than 5% of the agricultural GDP. Notwithstanding the key importance of this issue, recent studies conducted by the Economic Commission for Latin America and the Caribbean (ECLAC)[17] show that Paraguay is the country in the region with the highest cost overruns in its foreign trade. These difficulties are also reflected in the Logistics Performance Index—in 2018, Paraguay obtained a score of 2.70 out of 5.00, ranking 83 out of

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10 *Diagnóstico Territorial y Social de Brechas Socioeconómicas en Paraguay*, IDB, 2018. Figures 54, 62, and 70.

11 General Bureau of Statistics, Surveys, and Censuses. 2012 census.

12 *Paraguay: Rutas para el Desarrollo*.

13 Idem. Footnote 13.

14 Lack of direct access to the sea is a disadvantage for trade. According to Arvis et al. (2010), landlocked countries are characterized by: (i) trading 30% less than coastal countries; (ii) having higher import prices and reduced export revenues; and (iii) growing an average of 1.5% less than maritime countries.

15 The costs of road transportation account for 50% of total logistics costs, estimated at US$2.9 billion in 2011 (11.52% of GDP).

16 Transportation costs for plant and animal products: 8% of the market price.

17 ECLAC, 2014.

167 countries[18]—and in the most recent Global Competitiveness Index (2019), on which Paraguay ranked 126 out of 141 countries for quality of road infrastructure.

1.7 Paraguay's road network has approximately 79,000 km of roads, of which 14% are national, 9.5% are departmental, and 76.5% are rural.[19] The paved road density is 0.0255 km/km^2, below other countries in the region.[20] However, in 2019, Paraguay invested US$812 million of its budget in road works, and around 2,376 km of existing roads are currently being paved.[21] Connectivity and access in the Chaco region is below the national average: the road density is 0.077 km/km^2 (far less than in the western region, with 0.38 km/km^2) and only 5.3% of roads are passable in all weather. These figures demonstrate the marked difference between the regions in terms of road infrastructure coverage. Due to the low road density, combined with the poor quality of the network and high levels of precipitation[22] and flooding, the population, and especially the rural population, has problems accessing transportation; the rural access index[23] is 54% and could worsen due to the effects of climate change.

1.8 Despite the efforts made, investment in transportation infrastructure has been insufficient to meet the country's needs. From 2008 to 2016, public spending on infrastructure in Paraguay averaged 2.73% of GDP,[24] less than the investment of 5% of GDP calculated as necessary to close the infrastructure gaps in the region.[25] The suboptimal investment in conservation is reflected in the fact that around 58% of paved roads are in fair or poor condition, including 25% in a significantly deteriorated condition.[26]

1.9 The national government is executing a strategic plan with investments designed to redress the Chaco region's historically marked inequality of access to infrastructure (paragraph 1.3). The country is currently executing 12 projects in the Chaco region, for a total investment of US$2.424 billion, including: (i) the Integration and Development Corridor of the Western Region of Paraguay (bi-oceanic route),[27] 632 km long, which will cross the entire Chaco region from east (Carmelo Peralta) to west (Pozo Hondo), making it possible to connect the region to the Atlantic and Pacific oceans and facilitating regional traffic among

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18 This index ranks countries on six components: customs, infrastructure, ease of arranging shipments, quality of logistics services, tracking and tracing, and timeliness.

19 MOPC, 2020.

20 Argentina: 0.0422 km/km^2; Brazil: 0.0289 km/km^2; and Uruguay: 0.0447 km/km^2. Infrastructure and Logistics Profiles, ECLAC (2015); and CIA, The World Factbook.

21 2019 Management Report, MOPC.

22 Paraguay has over 1,600 mm of rainfall per year, which causes frequent disruptions to the unpaved roads (40-90 days/year on average). Source: MOPC, 2013. In the area of influence, there are even more disruptions, an average of 75 to 150 days per year.

23 Development indicator that estimates the percentage of the rural population that has adequate access to the country's transportation system. The Latin American and Caribbean average is 59%. Estache, Gómez-Lobo, and Leipziger (2000) argue that infrastructure development helps reduce economic inequality, provided that accessibility increases for the poor.

24 Infralatam, 2019.

25 IDB, 2014.

26 MOPC Road Investment Plan 2013-2018.

27 "Turnkey" financing through Law 5074 for section 1, from Carmelo Peralta to Loma Plata (277 km).

Brazil, Paraguay, Chile, and Argentina; (ii) widening and reconstruction of National Route PY9 (PY9) "Transchaco" from Cerrito to Mariscal Estigarribia and access roads (531 km);[28] PY9 is the main north-south artery of the Chaco region that stretches from Asunción to the Bolivian border; (iii) paving of agroindustrial corridors, including the Cruce de los Pioneros (PY9)-Paratodo segment and access roads;[29] this segment serves an important dairy farming and ranching area in central Chaco; (iv) upgrading and widening of the Asunción-Clorinda highway, which includes widening the highway and modernizing the border center that connects the country's capital to the main border freight center with Argentina;[30] and (v) construction of a bridge over the Paraguay River between Asunción and Chaco'i,[31] among other works.

1.10 Improving the national road network, including increasing resilience to the risk of natural disasters and climate change by paving unpaved stretches and optimizing maintenance, will help reduce distances and transportation costs for areas with high economic and productive potential,[32] making it possible to strengthen the resilience of the economy, internal communications, and territorial integration; facilitate the movement of freight and persons among production and consumption areas; increase the country's foreign trade competitiveness; and improve the safety of the road network.

1.11 **Sector organization.** The MOPC is in charge of preparing and implementing policies and provisions related to basic services and infrastructure for the country's economic development and integration, with primary responsibility for planning and managing the development and maintenance of the country's road infrastructure. These responsibilities extend to all types of national, departmental, and rural roads.

1.12 **Road maintenance strategy.** Considering the limited capacity and shortcomings of the centralized management of Paraguay's entire road network,[33] the MOPC has prioritized work on approximately 39% of the paved road network, through service-level contracts with the private sector for rehabilitation and maintenance. The rest of the network is maintained through the MOPC's direct administration, with scarce allocation of resources. The MOPC's aim is to implement a new strategy for maintenance of all types of roads in the national road network, to guarantee the quality of road service. Service-level maintenance contracts create the right incentives for the contractor to properly execute the rehabilitation and improvement works, since doing the work effectively from the start will reduce the costs of the subsequent maintenance, for which the contractor will be

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28 Cofinanced by the IDB, through loan 4402/OC-PR, and the Andean Development Corporation.

29 Financed by the IDB through loans 4915/OC-PR and 4916/KI-PR.

30 Financed through a loan from FONPLATA (PAR-020).

31 Financed with the country's own resources, funded by loan 4667/OC-PR. Work started in June 2020, with execution expected to take 36 months.

32 According to USAID (2006) the logistical cost overruns for representative foreign trade products exceed 2% of GDP.

33 The centralized system used for 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.

responsible.[34] These contracts also help prevent the frequently observed delays between the end of rehabilitation and the start of maintenance, and minimize the possibilities that budgetary fluctuations will affect the planned maintenance resources. The Bank is currently supporting the MOPC in promoting the establishment of a road fund and in strengthening the Road Maintenance Department (actions included in loans 3363/OC-PR and 3364/CH-PR, and 4915/OC-PR and 4916/KI-PR, respectively).

1.13 **Climate change.** Paraguay is among the countries in the region that are most vulnerable to extreme weather events (like floods, currently three times more frequent than usual). The Chaco region will be highly vulnerable for the next three decades, in which the intensity of rainfall is expected to increase; given the area's characteristic flatness, this will translate into flooding, with the resultant isolation of vulnerable populations. In all, 35.2% of the districts in the Chaco region are "very highly" vulnerable, and 27.6% are "highly" vulnerable. The transportation sector in particular recognizes that natural threats negatively impact the system's availability and performance and its ability to provide reliable, safe, and accessible transportation services. Furthermore, these weather events can tear at a region's social and economic fabric, above all hindering access to economic opportunities, education, health, and social interaction.[35]

1.14 **Safe and inclusive mobility.** Paraguay acknowledges the high economic cost and social problems associated with traffic accidents, which have been rising steadily to become the second leading cause of premature death in the country, with a rate of 22.7 fatalities per 100,000 inhabitants. This problem is principally due to out-of-date road safety technical specifications in road manuals and the fact that road safety inspections and audits are not mandatory. Consequently, roads are not built according to road safety standards and street furniture is not taken into account for the safe and inclusive mobility of pedestrians.

1.15 **Gender equality.** In Paraguay, women's participation in the labor force remains significantly lower than men's: in 2017, the labor force participation rate was 57% for women, versus 84% for men.[36] Furthermore, according to International Labour Organization estimates, most women work in the services sector (78% versus 51% of men). Figures for 2019 show that only 2.4% of all the women in the labor force work in the transportation, storage, and communications sector, compared with 9.5% of men. In total, 14.4% of employees in the sector are women and 85.6% are men. In the construction industry, just 1.7% of all employees are women, compared with 98.3% men.[37] The MOPC has a total of 3,810 employees, but only 24% (906) are women, most of whom hold administrative assistant and services positions.

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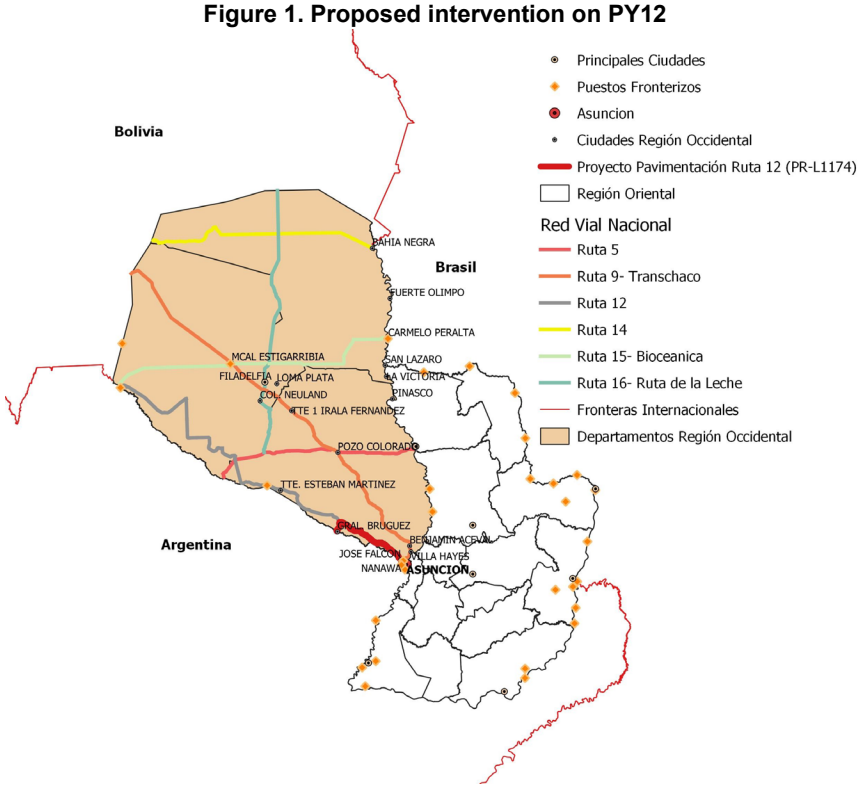
34 Pérez et al. (2019) show that for Uruguay, vertical integration (as opposed to the separate contracting of road rehabilitation and maintenance) leads to efficiency gains.

35 IDB, 2018.

36 World Bank, 2019.

37 International Labour Organization, 2019.

Figure 1. Proposed intervention on PY12



Source: Prepared by the authors.

1.16 **National Route PY12 (PY12).** The PY12 "Vicepresidente Sánchez" is 744 km long and unpaved, and it connects Chaco'i (on the opposite bank of the Paraguay River from Asunción) to Pozo Hondo (near the Paraguay-Bolivia-Argentina triple border).[38] It runs along the southern border of the Chaco region, parallel to the Pilcomayo River, the natural boundary between Paraguay and Argentina in this region, and is one of the national routes that is impassable for the longest amount of time every year,[39] with disruptions more than 75 days/year. This leads to the isolation of the target-area population, agricultural production losses, and the need to use other transportation options, including an alternative route to the capital through Argentina (National Route 86).[40] The road feeds a highly productive ranching region, given that it crosses the departments of Presidente Hayes and Boquerón, which produce 4.5 million head of beef cattle (33.3% of the country's total yield).[41]

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38 In 2019, the MOPC updated its list of the country's national routes. PY12 is the only segment of the national road network on the prior list to remain unpaved.

39 In 2019, PY12 was impassable for five months due to natural disasters (rainfall and flooding). MOPC Department of Radio Communications.

40 National Route 86 is paved and runs parallel to PY12 through the province of Formosa.

41 SENACSA, 2018.

1.17 **Identification of the problem and its consequences.** As a landlocked country with weak regional and territorial integration, Paraguay's competitiveness is limited; the poor quality of its roads restricts business opportunities and access to essential services, as shown by the stark differences between its two regions (paragraph 1.4) and regional and global performance indices (paragraph 1.6). In the Chaco region, these weaknesses are even more evident, and they result in a low paved road density (paragraph 1.7), poor road network quality (paragraph 1.8) and vulnerable infrastructure (paragraph 1.13). The road conditions directly affect the economy, which is dependent on agricultural exports (paragraph 1.2), restrict connectivity with important logistics hubs and downtown areas (paragraph 1.9), and limit the social mobility of vulnerable populations (paragraph 1.4).

1.18 **The project's direct area of influence** (paragraph 0) has been unable to fully participate in the country's major agro-export chains, and there is ample room to steer production to the local market and improve services for the local population. The high costs of transportation[42] and uncertainty regarding serviceability and accessibility in the rainy season hinder continued improvement in productive activity, since they reduce investment and make it more difficult for producers to enter formal supply chains that would lead to solid, sustainable trade relations. Ranching areas with similar characteristics in Paraguay have increased the animal stock to more than one bovine per hectare, while in the project zone there are fewer than 0.5 per hectare.[43] Moreover, the average live market weight of beef cattle in the area is 375 kg, while in the more productive areas of Chaco, it is 450 kg, principally due to their access to veterinary services, alternative feeds in the dry season, and water.

1.19 **Proposed intervention.** The project will finance paving and maintenance interventions on the southeastern end of PY12 (first stage of intervention[44]), starting from the turnoff for Nanawa, near the intersection with PY9 (paragraph 1.9), to the Triángulo junction (totaling 142 km along the PY12). It will also include interventions on the access roads to the communities of Ninfa and General Bruguez located on the bank of the Pilcomayo River, which borders Argentina (total of 22 km), and interventions to improve urban roads[45] in General Bruguez and Ninfa (total 2 km). The proposed interventions will complement Paraguay's efforts to connect the Chaco region with the rest of the country and the region (paragraphs 1.7 and 1.9).

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42 The road's suboptimal technical standards for current traffic levels, which reach 1,805 vehicles/day (of which 243 are trucks) on the most used stretch, are reflected in high vehicle operating costs (an average of around US$1.50/vehicle-km) and travel times of four hours to cover the almost 165 km of the stretch. Optional link 1.

43 Optional link 2, idem, footnotes 6 and 7.

44 A second stage provides for paving the road from the Triángulo junction to General Díaz, and a third, from General Díaz to Pozo Hondo.

45 This project allows for incorporating a technical standard calling for labor-intensive paving with blocks or concrete, to improve the employability of the most vulnerable local population. A case study in Nicaragua demonstrates the impacts of these types of measures, which create more jobs per US$1 million invested without compromising quality.

1.20 **Regional integration.** The PY12 will foster Paraguay's economic integration, since the upgrades form part of the strategy of connecting, via the country's road network, all of the production centers with productive and export potential with the hubs and processing and foreign trade infrastructure (optional link 3). Among its other effects, the intervention will help meet the increased demand for beef destined for Chile and the Asia-Pacific markets from one of the country's primary freight attraction and/or production centers (paragraph 1.19), given the expected increase in productivity and competitiveness in the project area of influence due to the year-round serviceability and reduced transportation times and costs. The intervention will thus foster the local productive development of the area, which is difficult to access but has great potential. With the eventual new border crossing between General Bruguez (Paraguay) and General Belgrano (Argentina), the PY12 may also become an alternative route to reduce congestion for import and export operations, easing pressure on Puerto Falcón, where capacity has been exceeded.[46] In the long term (stages II and III), the PY12 will connect to the bi-oceanic route at Pozo Hondo, the country's entry point to/from the west. The PY12 is expected to become a key alternative route for connecting to and accessing the western region for freight going to/coming from Chile and Asia-Pacific markets. This connectivity is particularly important in light of the Mercosur and Pacific Alliance trade agreements.

1.21 **Justification of the interventions.** Upgrading the PY12's current conditions will strengthen the country's competitiveness, based on empirical evidence such as: (i) the experience in central-western Brazil, which showed that between 1970 and 1996—a period in which the area was emerging as an agricultural power, while substantial investments were being made in improving its paved road network—a 1% increase in transportation costs reduced soy production and trade by between 0.4% and 0.9%;[47] (ii) investments in improving the quality and connectivity of infrastructure in Nicaragua facilitated producers' access to new markets, with improvements of up to 40% in agricultural and fishery production; (iii) investments in improving the quality of the road network have positive effects on exports;[48] (iv) disaster resilience and prevention generate benefits worth four to six times the costs, in terms of reduced and avoided losses;[49] and (v) improved road connectivity increases school attendance, reduces the morbidity rate, and increases the use of local facilities.[50]

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[46] Paraguay is currently executing a number of proposals to improve regional access and connectivity for the Asunción-Clorinda hub, including widening the PY9 and building a new border control center at Puerto Falcón.

[47] This adverse impact is even more pronounced in the states of the region where agriculture accounts for a large share of GDP and transportation routes are longer, as is the case of the Paraguay's Chaco region.

[48] In Peru, Volpe Martincus C. et al. (2017) found that a highway investment program led to substantial improvement in annual average export growth (3.7%).

[49] United Nations Office of Disaster Risk Reduction, 2011; Kull, et al., 2013; Mechler, 2016; Multihazard Mitigation Council, 2005; Moench, et al., 2007.

[50] Impacts of a rural roads program in Peru: (i) school attendance up for adolescents and girls on the motorized roads (7% increase for both males and females); (ii) morbidity (down 4% overall and down 9% in children under 5); and (iii) use of local facilities on both types of roads.

1.22 **Innovation for promoting sustainable infrastructure.** The Bank's general framework for sustainable infrastructure provides criteria for incentivizing projects to comply with sustainability standards, including but not limited to considering climate change and disaster risks (paragraph 1.13), the efficient use of materials, capacity-building, and the use of technology to improve project sustainability. In connection with the operation, a hydrodynamic analysis was performed of critical points on the PY12 (stage I) using the HydroBID-Flood[51] tool to support climate change and disaster risk management, given the threat of flooding in the project area of influence (optional link 14). The tool made it possible to evaluate the risks of natural hazards with a view to strengthening the resilience of road assets, including through measures that address climate change threats. The MOPC has expressed an interest in adopting and implementing the use of the HydroBID-Flood tool in planning, preparing, and executing its projects and works, as well as the IDB Blue Spot Analysis methodology[52] (optional link 15), actions that will require technology and skills transfer.

1.23 **Bank knowledge in the sector.** The Bank has been playing a significant role in the development of the transportation and logistics sector in Paraguay. In the past 20 years, it has approved nine operations[53] for a total of US$1.028 billion for the paving and maintenance of corridors in the national road network, including the Upgrade and Maintenance Project for National Route 9 and Access Roads (loan 4402/OC-PR) and the Program to Rehabilitate and Maintain Agroindustrial Corridors (loans 4915/OC-PR and 4916/KI-PR), both in Paraguay's Chaco region. These programs characterize the country's efforts and the Bank's support in improving connectivity through investments in road infrastructure in this region, actions that mainly serve to support the agricultural sector, strengthening its competitiveness and insertion in international markets, by financing the paving of 1,139 km of important primary roads, rebuilding 535 km, and developing a service-level maintenance management system for 1,624 km.

1.24 **Lessons learned.** A study to evaluate the lessons learned in similar operations in Paraguay (optional link 5), produced the following lessons learned, which have been incorporated into this operation: (i) have computer tools for managing and monitoring the execution of civil works; (ii) involve the Environmental Management Department in the design stage and have an exhaustive inventory of environmental liabilities; (iii) ensure the works timeline aligns with implementation of the measures included in the environmental and social management plan (ESMP); (iv) ensure the continuity of maintenance under the service-level standards financing modality; (v) ensure adequate, timely analysis of engineering projects to reduce uncertainty regarding their scope and costs and prevent the subsequent revisions and adjustments, which necessarily lead to a longer term and larger budget for executing the works; and (vi) propose sizing the technical

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[51] Hydro-BID Flood is a tool developed by the IDB to support projects involving flood mitigation, improved urban drainage, and the design of hydraulic works through advanced hydrological and hydraulic models.

[52] Blue Spot Analysis is a methodology for identifying and prioritizing interventions in the transportation network to make it resilient to natural and climate hazards.

[53] Executed: loans 933/OC-PR; 1230/OC-PR; 1278/OC-PR; 1822/OC-PR. In execution: loans 2934/OC-PR; 3372/OC-PR; 3837/OC-PR; 4402/OC-PR; 4915/OC-PR.

and fiduciary support consulting firm contracts in a sufficiently flexible way to adapt to the requirements that may arise during execution.

1.25 **Strategic alignment.** The project is aligned with the IDB Group Country Strategy with Paraguay 2019-2023 (document GN-2958), in particular with the strategic objective of improving infrastructure coverage and quality. The project is consistent with the Second Update to the Institutional Strategy 2020-2023 (document AB-3190-2) and aligned with the development challenges of: (i) productivity and innovation, due to its support for the rehabilitation, upgrading, and maintenance of the infrastructure of the country's strategic road corridors, which will promote competitiveness; (ii) economic integration, due to its contribution to facilitating access and transportation of merchandise to regional and international foreign markets, in particular for the agricultural sector and beef production; and (iii) social inclusion and equality, through the provision of infrastructure and adequate services that will improve access for vulnerable areas and communities with high poverty rates. The operation is also aligned with the crosscutting areas of: (i) climate change and environmental sustainability, and the IDB Integrated Strategy for Climate Change Adaptation and Mitigation and Sustainable and Renewable Energy (document GN-2609-1), and it includes elements of the sustainable infrastructure framework, by incorporating the Blue Spot Analysis and climate change adaptation concepts into the sole component to adjust the structural design of embankments, bridges, drains, and sewers, to minimize the potential impacts on the infrastructure of extreme weather events, like floods. All told, 27.76% of resources under the operation will be invested in climate change adaptation and mitigation activities, in accordance with the multilateral development banks' joint methodology for tracking climate finance. These funds contribute to the IDB Group's target of increasing the level of climate change financing to 30% of all approvals by the end of 2020; and (ii) gender equality and diversity, through actions to promote economic opportunities for women and indigenous communities and to support the MOPC in designing a gender policy. The project contributes to the Corporate Results Framework 2020-2023 (document GN-2727-12) indicator on "roads built or upgraded (km)."

1.26 The project is consistent with the Strategy of Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), in particular with the strategic principles of: (i) financing and technical assistance to ensure that infrastructure 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. It is also consistent with the following sector framework documents: (i) Transportation (document GN-2740-7), contributing to the dimension on the quality of transportation infrastructure and services; (ii) Integration and Trade (document GN-2715-11), by complying with the criterion of multinational targeting to better position it in the region; (iii) Climate Change (document GN-2835-8), by increasingly incorporating climate considerations in Paraguay's PY12 and road network; and (iv) Gender and Diversity (document GN-2800-8), by promoting economic opportunities for women and vulnerable communities and supporting the MOPC in designing a gender policy.

B. Objectives, components, and cost

1.27 **Objective.** The general objective of the project is to help improve Paraguay's competitiveness through the provision of road infrastructure suited to all weather conditions and safe, resilient, and reliable transportation services on National Route PY12 (stage I) and access roads. The specific objectives are to: (i) contribute to improving the service level and quality of the highway; and (ii) ensure safety and serviceability year-round to guarantee access to markets and essential health and education services. To achieve these objectives, the project has been structured into the following component:

1.28 **Sole component. Civil works, inspection, and other costs (US$215 million).** This component will finance: (i) paving of nearly 142 km of the PY12, 22 km of access roads, and 2 km of urban roads (paragraph 1.19); it provides for the construction of roadways and shoulders,[54] adjustments to the alignment, curvature, and slopes, adaptation of embankments and sewers to critical hydrological conditions according to climate change adaptation criteria, pavement markings and road signage, implementation of road safety equipment and construction of three bridges located along the route. To help close gender gaps (paragraph 1.15), the project will promote women's participation in the workforce on road works[55] and build the MOPC's institutional capacity, promoting gender equality in transportation projects with the design of a MOPC gender policy; (ii) service-level maintenance of approximately 166 km for a period of four years after the upgrades are completed;[56] (iii) technical and socioenvironmental monitoring of the works; (iv) environmental and social mitigation, including expropriations;[57] (v) payments for environmental services;[58] (vi) price escalations; (vii) project administration; (viii) technical studies, which will focus on consulting services to prepare: (i) analysis of freight and possible improvements in the infrastructure and logistics management of the border crossings, as well as feasibility studies for the General Díaz-Pozo Hondo segment of the PY12 (stage II); and (ii) the Blue Spot Analysis of the country's road network; (ix) monitoring and evaluation; and (x) external financial audits.

1.29 The purposes of upgrading the road's technical characteristics are to increase road safety, promote inclusive roads, and incorporate design criteria that facilitate universal access in the urban interventions. To these ends, the program will include: (i) updating of the road design manual, principally the chapters on road safety and universal accessibility; (ii) training and certification on road safety

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54 The roadways are 7 m wide with 2 m shoulders on each side.

55 Through conditions in the contracting specifications that ensure equal opportunities, training workshops on road works and interpersonal skills. The training on road works will include paid internship programs for women and indigenous peoples in the area of influence.

56 Contracts under which the same company that has been awarded the upgrading works is later responsible for maintenance.

57 The land for the roadway and right-of-way will be expropriated for the Republic of Paraguay by the MOPC, as per Law 5,389.

58 Article 11 of Law 3001/06 established that works and activities defined as having a significant environmental impact must purchase environmental service certificates to offset the environmental impacts of the projects.

inspections and audits; (iii) design and implementation of the school roads program, through guides, and intervention in safe, accessible infrastructure around schools in the PY12's direct area of influence.

C. Key results indicators

1.30 **Expected outcomes.** The main outcomes of the project will be verified through the following indicators: (i) vehicle operating cost (constant US$ per vehicle-km); (ii) average travel time (minutes); (iii) number of trucks in the total annual average daily traffic on the PY12 (number); (iv) reduction of travel times between General Bruguez to the nearest inpatient facility (minutes); (v) patient transfers from the family health center in General Bruguez to healthcare facilities in Argentina (number/year); and (vi) days on which the PY12 segment is impassable or circulation is severely restricted (number). These results will directly benefit around 55,000 people, namely, the inhabitants and producers of the districts of Villa Hayes, Puerto Falcón, and General Bruguez, by ensuring they have year-round access to markets and services.

1.31 **Economic viability.** An economic feasibility analysis (optional link 2) was conducted for the project. This evaluation is based on a comparison of costs and benefits, at economic prices, in situations with and without the road improvement project.[59] The benefits were estimated by applying an analytical methodology widely used in road projects serving relatively undeveloped zones, inasmuch as the improvements can influence the local productive capacity, taking care to ensure that the analysis had taken into account the increase in livestock production and the associated traffic generated to avoid double counting of benefits. The analysis quantified the savings in the general transportation costs for normal traffic (both induced and derived) and the post-upgrade reduction in road maintenance costs for the segment (consumer surpluses), as well as the increases in the value added of agricultural production (producer surpluses) over a 20-year period. The Highway Development and Management System (HDM-4)[60] model was used to calculate the project's benefits, considering: (i) investment costs, including direct socioenvironmental impact mitigation costs; (ii) vehicle operating costs, including time; and (iii) annual maintenance costs defined for the conditions with and without the project, to which the increased additional value added of livestock production has been added pursuant to the producer surplus methodology, verifying that benefits would not be counted twice and that the calculated benefits do not include taxes or transfers. In accordance with this conservative approach, the other additional benefits expected from the project—which is strategic for the region's socioeconomic development and integration—were not quantified or monetized. These benefits include: (i) improved access to social services (schools, health care facilities, markets, etc.)[61] as a result of the road being serviceable at all times;

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[59] The costs considered in the scenario with the project include engineering and supervision, payment for the upgrades, and environmental and social mitigation actions.

[60] To ensure that the structural design of the highway and the results of its deterioration model simulated by HDM-4 are appropriate, the truck traffic generated by the increase in livestock production in the "with-project" scenario was simulated.

(ii) the impact on the diversification of local productive capacity,[62] and tourist sector development; (iii) the country's increased regional and global integration.[63]

1.32 Based on these conservative assumptions, the analysis yielded an economic internal rate of return (EIRR) of 9.8, higher than the rate used by Paraguay's national public investment system (SNIP). Furthermore, under the sensitivity analyses conducted, the project maintains an EIRR slightly below the discount rate of 9% used by SNIP (testing a 20% increase in investment cost, 20% decrease in benefits, and a simultaneous 10% increase in investment cost and 10% decrease in benefits), which confirms its reasonable robustness in less favorable scenarios.[64] Table 1 summarizes the results of the cost-benefit and sensitivity analyses conducted, for the three scenarios considered.

Table 1. Economic cost-benefit analysis

Length (km)	Cost (US$ million)	Economic net present value (US$ million)	EIRR (%)			
			Base	Sensitivity analyses		
				Cost +20%	Benefit -20%	Cost +10% Bnft -10%
166	185.45	13.03	9.8	8.4	8.3	8.3

II. Financing Structure and Main Risks

A. Financing instruments

2.1 **Modality.** This operation will be financed by an investment loan under the specific works modality, with a disbursement period of seven years.[65]

2.2 **Cost and financing.** The project will have a total cost of US$215 million, of which the Bank will finance 100% from Ordinary Capital resources. The following table shows the project's costs and financing.

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61 Idem, footnote 51.

62 Perishable products dependent on the road being passable at all times.

63 Exports from Kyrgyzstan to Kazakhstan increased 160% (1998-2007) as a result of the rehabilitation of the road connecting the two countries.

64 As a consequence of the road's chronic suboptimal condition, current levels of traffic and the associated benefits are modest compared to the project's CAPEX. Therefore, additional elements must be taken into account in order to confirm that the project is justified by reasons other than its economic efficiency. One such factor is discussed in paragraph 1.21.

65 This period is justified because the operation requires one year for reaching eligibility and tendering, two years for the upgrade works, and four years of maintenance.

Table 2. Project costs and financing

Category	Description	TOTAL (US$)	%
1	**Sole component - civil works, inspection, and other costs**	**215,000,000**	**100.00**
1.1	Works for paving and maintenance of the Nanawa junction - Triángulo - General Bruguez segment of the PY12	173,500,000	80.70
1.2	Technical inspection and environmental and social supervision	10,000,000	4.65
1.3	Environmental and social sustainability	6,690,000	3.11
1.4	Project administration	5,000,000	2.33
1.5	Technical studies	2,620,000	1.22
1.6	Auditing and monitoring	700,000	0.33
1.7	Contingencies and escalations	16,490,000	7.67
	Total	**215,000,000**	**100.00**

2.3 Table 3 shows the disbursement schedule.

Table 3. Flow of disbursements (US$ millions)

Financing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
IDB / Total	58.9	100.1	26.9	7.9	7.6	7.7	5.9	**215.0**
% of total	27.4	46.6	12.5	3.7	3.6	3.6	2.7	**100**

B. Environmental and social safeguard risks

2.4 In accordance with the Bank Environment and Safeguards Compliance Policy (Operational Policy OP-703), this has been classified as a category “B” operation, since the works to be financed involve moderate, localized, and temporary socioenvironmental risks and impacts classified as medium risk due to the potential difficulty of appropriately administering the environmental and social management plans. In compliance with the activated policies, the following documents were prepared: environmental and social analysis (ESA), sociocultural analysis and indigenous action plan, ESMP, involuntary resettlement and economic restitution plan, and consultation report plan. In the design stage in October 2019, a consultation round was held with the Tooshec Qaltaq indigenous community, which is settled in the direct area of influence. The community gave its consent at this round (optional link 9 and optional link 10). On 18 June 2020, the community leaders gave their confirmation and agreement, with official support from the National Institute of Indigenous Affairs. A meaningful consultation was also held to inform stakeholders and other affected parties, both in-person and online, following national and MOPC COVID-19 protocols. The participants (10 in-person and 66 online) made queries on the effects, improved access to settlements, and start date of the works, and recommended road education and confirmed their interest in the project.

2.5 The key social issues analyzed in the socioenvironmental studies include: (i) indigenous peoples: a sociocultural analysis was conducted with the indigenous population in the direct and indirect areas of influence; it documented the definition of an alternative layout for the road so as to avoid the physical displacement of the

Tooshec Qaltaq indigenous community in the direct area of influence and the effects on their lands, homes, and/or improvements. The sociocultural analysis also includes evidence of the good-faith agreement reached with the leader and families, documented in minutes, with compensations proposed in the indigenous action plan; before construction begins, the activities reflected in the sociocultural analysis will be confirmed with the Kenkutec community in the indirect area of influence; (ii) physical and economic displacement: expansion of the right-of-way and the adaptation of certain curves will result in impacts due to physical and economic displacement and effects on women who require compensation and rehabilitation measures, with a total of 105 impacts, namely: 9 involuntary resettlements, 4 economic displacements, 22 estancias (ranches) with effects on land and improvements, and 70 effects on other improvements. An involuntary resettlement and economic restitution plan has been prepared that contains eligibility, number, and categories of impacts, and alternatives to resettlement that include: construction of housing units on land purchased from municipios; construction on the same property where the housing unit is located if the dimensions of the property allow for it; purchase of housing available on the market. Before construction begins on each subsection, the executing agency will verify compliance with the activities prior to resettlement as per the involuntary resettlement and economic restitution plan. Furthermore, prior to use of borrow pits for the project, rent payments will be agreed for temporary use; and (iii) gender: the potential risks and impacts during preparation of the operation, exclusion from opportunities for participation and from access to benefits with gender equity, and potential gender violence, as a result of the interventions.

2.6 The principal environmental impacts and risks analyzed in the socioenvironmental studies include: (i) borrow pits for fill needs: the project has not yet defined exactly where these pits will be. The ESA/ESMP defines the mitigation measures and requirements for avoiding significant impacts on the environment and biodiversity in the selected borrow pits; (ii) biodiversity: the routing does not cross protected areas or other areas that are key to biodiversity, and the interventions are not expected to affect critical natural habitats in any way. The ESA/ESMP includes biodiversity management measures to minimize clearing of vegetation, provisions for setting up wildlife crossings, and measures for rescuing threatened flora and fauna, should it be necessary to do so; (iii) risk of natural disasters: most significantly, flooding. The ESA includes a qualitative summary of the natural disaster threats and recommends the size of the drainage works needed for the design to mitigate the risk; the ESMP includes a plan for managing emergencies and contingencies; and (iv) COVID-19 risk: the ESA and ESMP include considerations and preliminary management measures for the COVID-19 pandemic, in view of the existing national protocols and international best practices for health and safety during the pandemic.

C. Fiduciary risks

2.7 The MOPC, acting through a project execution unit (PEU), has experience applying Bank procedures and standards, given that it is currently executing the following operations: loans 2934/OC-PR, 3372/OC-PR, 3837/OC-PR, 4402/OC-PR, and 4915/OC-PR. However, the institutional capacity analysis platform identified areas for improvement, such as: planning, organization, internal

control, and personnel and property management. The entity's response capacity was identified as a medium risk, given the difficulty of executing all of the operations for which it is responsible, which could lead to limited monitoring of the investment and delays in procurement. To mitigate this risk, the plan is to: (i) hire a consulting firm to provide technical and fiduciary support to the PEU and other MOPC execution departments, for the overall coordination and management of execution of the projects for which the PEU is responsible (paragraph 3.3); (ii) train employees on project management tools and Bank financial and procurement policies; and (iii) prepare and enact project Operating Regulations.

D. Other key risks and issues

2.8 **Public management and governance.** There is a medium risk that additional costs would make it impossible to complete the works as planned, considering the record of other similar operations executed by the MOPC (optional link 5). This risk has been mitigated through the following: (i) the MOPC and the Bank provided support for reviewing the scope of the project's engineering design during preparation of the operation, reviewing the criteria used during design development and reducing the risk of potential additional costs. Reference costs obtained from similar works were used; and (ii) a budget line was added for possible cost escalations, and any additional needs will be covered by the executing agency to ensure full achievement of the project's scope.

2.9 **Development.** The following risks were identified: (i) a high risk regarding the sustainability of the investments for maintaining the infrastructure, which will be mitigated in the short and medium terms with the implementation of service-level contracts (paragraph 1.12) under which the construction company will maintain the infrastructure it has built for the subsequent four years. Notably, the MOPC's current maintenance strategy for the entire paved road network is based on gradually migrating to third-party contracts, based on prior positive experience with them (optional link 6). Likewise, and with a view to medium- and long-term sustainability, the Bank will continue to support the MOPC in establishing a road fund (paragraph 1.12). With regard to the sustainability of the works in the face of the effects of climate change, the project provides for implementing the Hydro-BID tool and performing the Blue Spot Analysis for the segment and the rest of Paraguay's road network; and (ii) a medium risk of delays in the execution of the works, considering the current high level of demand in the construction market and the executing agency's historical performance executing works (optional link 5). The mitigation measures identified include Bank collaboration with the MOPC[66] on implementing tools for the monitoring and operational management of the works, to optimize management of the information, ensure appropriate monitoring, and issue early alerts to help with management of the works. A call will also be made for ad referendum inspection of the legislative approval (entry into effect of the loan), to have this service in place prior to the works.

[66] In connection with operation ATN/OC-17418-PR. The MOPC has already implemented an electronic works certification system, which it is supplementing, with Bank support, with additional modules for managing and monitoring the works.

2.10 **Macroeconomic.** There is a high risk of possible delays in the legislative approval of the loan as a result of the limited fiscal space for new borrowing (paragraph 1.1), due to the government's fiscal effort to address the COVID-19 pandemic and implement a plan to reactivate the economy. As a mitigation measure, the project will provide technical support to the MOPC and Ministry of Finance authorities, to ensure they have adequate information about the economic and development benefits of the project. Furthermore, efforts will be made to include this project as part of the national economic team's economic revitalization plan.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

3.1 **Borrower and executing agency.** The borrower for this operation will be the Republic of Paraguay. Acting through the MOPC, it will also serve as executing agency. Within the MOPC, the project will be executed by the IDB-PEU, which will report to the Highway Department of the Office of the Deputy Minister of Public Works and Communications, whose main role will be the technical, administrative, and operational management of the project. Execution actions will be coordinated among the MOPC line units.

3.2 The IDB-PEU will be responsible for the project's technical, administrative, and operational management, including the following tasks: (i) presentation, in due time and proper form, of evidence of fulfillment of 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 through the Public Credit Bureau under the Office of the Deputy Minister of Administration and Finance; (iv) management of the external audit through the Public Credit Bureau under the Office of the Deputy Minister of Administration and Finance; (v) delivery of operational plans to the Bank (including the financial plan, procurement plan, annual work plan, and others); (vi) delivery of reports and other documents to the Bank (including evaluations and audit and status reports); (vii) support for supervision and oversight of works and service contracts; and (viii) liaison with the Bank.

3.3 To provide support to the IDB-PEU, a consulting firm[67] with experience in executing similar projects will be engaged for technical and fiduciary support. This consulting firm will provide support for preparing technical specifications for contracting services and works, planning and programming project activities, reviewing designs, the technical and socioenvironmental supervision of works, procurements, and financial control, safeguards considerations, institutional relations, monitoring and evaluation, etc.

3.4 The works will be executed by construction companies. For the sake of efficiency, the physical length of the project was divided into three work sections, which will be tendered as one but awarded in lots. Consulting firms or independent

[67] A consulting firm has been contracted for technical and fiduciary support under loan 3372/OC-PR, but it also provides support for managing the other operations currently being executed. The subsequent services will be contracted successively among the various programs in execution.

consultants will be hired to conduct the project studies and provide specialized technical assistance services and works oversight. The contractor and works inspection company will each have at least one environmental and social specialist on their teams to verify compliance with the ESMP and the general environmental technical specifications provided for in the applicable specifications, conditions, and manuals.

3.5 **Procurement of works, goods, and services.** Procurement will be carried out in accordance with the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (document GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-15), and with the specifications set forth in the loan contract and procurement plan (required link 4), which 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.

3.6 **As special contractual conditions precedent to the first disbursement, the MOPC will present evidence, to the Bank's satisfaction, of the: (i) approval and entry into effect of the program Operating Regulations (optional link 17) under the terms and conditions previously approved by the Bank (paragraph 2.7); and (ii) assignment of the project to the PEU by ministerial resolution.** The first measure is necessary because the Bank's experience in the region indicates that approval of the Operating Regulations prior to the first disbursement fosters the executing agency's internal organization for implementing the operation, and the second measure is justified to ensure that the PEU is in charge of the project for proper execution and coordination thereof.

3.7 The Operating Regulations (optional link 17) will be consistent with MOPC and Bank policies and standards, as well as with the laws and financial practices in force in Paraguay. The document will cover at least the following items: the project's execution and coordination mechanisms; the institutional, organizational, and functional framework, including the PEU's structure, organization, and design and development of profiles; the programming, monitoring, control, and evaluation mechanisms; the financial management, budget, accounting, and payment mechanisms; the management and different types of procurement processes; and exchange control procedures. In terms of environmental and social management, the Operating Regulations will include the documents referred to in the environmental and social management report.

3.8 **Disbursements.** The loan will be disbursed under the advance of funds modality, with frequency determined based on the project's financial programming, to be updated regularly by the PEU. The Bank may process a new advance of funds when at least 80% of the funds disbursed as advance payments have been justified. Disbursement requests will be subject to ex post financial review, included in the external audit.

3.9 **Maintenance.** Once the project has been completed, the executing agency will: (i) oversee proper maintenance of the project works and teams pursuant to generally accepted technical standards; and (ii) submit an annual maintenance report to the Bank on the status of the project works and teams during the first

quarter of each calendar year, from the year in which the first project-financed work is completed until the fifth year after the disbursement period is over.

B. Summary of arrangements for monitoring results

3.10 The monitoring and evaluation plan (required link 2) will support execution of the operation pursuant to the targets and progress indicators defined in the results matrix. The following tools will be used to that end: (i) the multiyear execution plan, annual work plan, procurement plan, and annual external audits; (ii) semiannual progress reports, including indicators on impact monitoring, outcomes, component execution, and fulfillment of environmental, social, and occupational health and safety requirements, in particular for the plan to support indigenous communities, resettlement plans, plan to support campesino communities, and the ESMP; (iii) the project's final evaluation; and (iv) audited financial statements.

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

Development Effectiveness Matrix		
Summary	PR-L1174	
I. Corporate and Country Priorities		
1. IDB Development Objectives		
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -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		
Country Strategy Results Matrix	GN-2958	Strategic objective: (i) improving infrastructure coverage and quality; and (ii) cross-cutting support for gender challenges, diversity and indigenous populations, and innovation and technology.
Country Program Results Matrix		The intervention is not included in the 2020 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
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		9.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		3.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		0.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		9.3
5.1 Monitoring Mechanisms		2.5
5.2 Evaluation Plan		6.8
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.
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		

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

Evaluability Assessment Note: *This is an investment lending of US$ 215 million to be executed by the Ministry of Public Works and Communications (MOPC). Its general objective is to contribute to improve the competitiveness of Paraguay by providing adequate road infrastructure at all times and safe, resilient and reliable transportation services of the National Route PY12 and accesses. The specific objectives are: (i) to contribute to improve the level of service and quality; and (ii) to ensure permanent and safe transit to markets and essential services in health and education. With an extension of 744 km without pavement, the National Route PY12 connects the southern region of Chaco with the country's capital, Asunción, and has a high impassability time of more than 75 days a year. The high impassability generates economic underdevelopment and high transportation costs, forcing the use of alternative routes through the Argentine territory. For this reason, the region of influence of PY12 and its population is affected by below potential development of agricultural production and by restrictions on access to essential health and education services. The project aims to pave and maintain 166 km of PY12 including accesses, allowing the use of this section of the road throughout the year. As a result, it is expected to reduce the cost and average travel time and improve access to health and education services. The beneficiary population is not clearly identified in the POD, which implied a corresponding reduction in the evaluability score.*

The ex-ante economic analysis of the intervention is appropriate. It was carried out with reasonable assumptions and using the concept of the producer surplus, in order to capture the productivity gains induced by the increase in road availability and the reduction of transportation costs. However, insufficient empirical evidence was not presented to justify the expected productivity gains in livestock activities, leading to a reduction in the evaluability score. The net present value of the interventions is US$ 13.0 million. The expected internal rate of economic return (EIRR) of the project is 9.8%, higher than the 9% rate used by the National Public Investment System (SNIP) of Paraguay. The sensitivity analysis is reasonable and leads to an EIRR of 8.3% to 8.4%, somewhat lower than the reference EIRR of the Paraguayan SNIP. The project evaluation plan proposes to carry out an ex-post cost-benefit analysis that is well presented and developed.

RESULTS MATRIX

Project objective:	To help improve Paraguay's competitiveness through the provision of road infrastructure suited to all weather conditions and safe, resilient, and reliable transportation services on National Route PY12 (stage I) and access roads. The specific objectives are to: (i) help improve the level of service and quality of the highway; and (ii) ensure safety and serviceability year-round to guarantee access to markets and essential health and education services.

EXPECTED IMPACT

Indicators	Unit of measurement	Baseline	Baseline year	Final target (2028)	Means of verification	Comments
Impact 1: Help boost Paraguay's competitiveness						
Average weight of cows brought to fair from the Presidente Hayes department	Kg	375	2018	412	Annual livestock statistics, SENACSA	

EXPECTED OUTCOMES

Indicators	Unit of measurement	Baseline	Baseline year	Final target (2028)	Means of verification	Comments
Outcome 1: Contribute to improving the level of service and quality of the PY12 and access roads						
Average vehicle operating cost	Constant US$ per veh/km	Vehicle type: PY12 (2020) — Light: 0.412; Bus: 1.594; Trucks: Light 1.032, Medium 1.454, Light heavy 2.115, Heavy 2.834	2020	Vehicle type: PY12 — Light: 0.246; Bus: 0.698; Trucks: Light 0.531, Medium 0.734, Light heavy 1.059, Heavy 1.400	Highway Development and Management (HDM-4) traffic study	

<table>
<tr><th>Indicators</th><th>Unit of measurement</th><th>Baseline</th><th>Baseline year</th><th>Final target (2028)</th><th>Means of verification</th><th>Comments</th></tr>
<tr><td>Average travel time[1]</td><td>Minutes</td><td><table><tr><th colspan="2">Vehicle type</th><th>PY12 (2020)</th></tr><tr><td colspan="2">Light</td><td>301.4</td></tr><tr><td colspan="2">Bus</td><td>273.9</td></tr><tr><td rowspan="4">Trucks</td><td>Light</td><td>308.2</td></tr><tr><td>Medium</td><td>318.5</td></tr><tr><td>Light heavy</td><td>313.2</td></tr><tr><td>Heavy</td><td>336.6</td></tr></table></td><td>2020</td><td><table><tr><th colspan="2">Vehicle type</th><th>PY12</th></tr><tr><td colspan="2">Light</td><td>109.3</td></tr><tr><td colspan="2">Bus</td><td>112.3</td></tr><tr><td rowspan="4">Trucks</td><td>Light</td><td>120.5</td></tr><tr><td>Medium</td><td>138.0</td></tr><tr><td>Light heavy</td><td>110.4</td></tr><tr><td>Heavy</td><td>122.3</td></tr></table></td><td rowspan="2"></td><td></td></tr>
<tr><td>Number of trucks[2] in the annual average daily traffic on the PY12</td><td>Number</td><td>45</td><td>2020</td><td>102</td><td></td></tr>
<tr><td colspan="7"><u>Outcome 2</u>: Ensure safety and serviceability year-round to guarantee access to markets and essential health and education services</td></tr>
<tr><td>Travel times between General Bruguez and the closest inpatient facility (Villa Hayes)[3]</td><td>Minutes</td><td>331.4</td><td>2020</td><td>139.2</td><td>HDM-4 traffic study</td><td></td></tr>
<tr><td>Transfers of patients from the family health center in General Bruguez to healthcare facilities in Argentina (National Route 86)</td><td>Number/year</td><td>17</td><td>2019</td><td>0</td><td>Family health center report</td><td></td></tr>
</table>

1 The indicator shows the average operating speed for each type of vehicle. The following variables are taken into account: segment distance (km); average speed (km/h); and minutes.

2 Volume of traffic of freight-transport vehicles (light, medium, light heavy, and heavy trucks).

3 The project will intervene on 80% of the segment to be measured.

Indicators	Unit of measurement	Baseline	Baseline year	Final target (2028)	Means of verification	Comments
Days on which the PY12 segment is impassable (closed to traffic) or on which traffic is severely restricted	Number/year	75	2020	0	MOPC Dept of Radio Communications	

OUTPUTS

Outputs	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Final target (2028)	Means of verification	Comments
Component 1: Civil works, inspection, and other costs													
Km of national road network roads and access roads paved by the project	Km	0	2020	0	0	166	0	0	0	0	166	Technical and environmental inspection reports	
Km of national road network roads and access roads maintained by the project	Km	0	2020	0	0	166	166	166	166	166	166		
Workshops on gender equity and violence against women for contractor companies	Number	0	2020	0	3	0	0	0	0	0	3		Pro-gender

Outputs	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Final target (2028)	Means of verification	Comments
and other involved agencies designed and implemented													
Women and indigenous persons trained on road-works-related tasks and soft skills	Number	0	2020	0	30	0	0	0	0	0	30		Pro-gender The number of persons trained will be disaggregated by sex.
Gender action plan and strategy designed	Number	0	2020	0	1	0	0	0	0	0	1	MOPC web page	Pro-gender Information: optional link 14
Blue Spot Analysis	Number	0	2020	0	0	1	0	0	0	0	1	Annual program implementation report	Optional link 17
Technical feasibility study: General Díaz - Pozo Hondo segment	Number	0	2020	0	0	1	0	0	0	0	1		
Studies for analyzing freight and possible improvements in the infrastructure and logistics management	Number	0	2020	0	0	1	0	0	0	0	1		

Outputs	Unit of measurement	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Final target (2028)	Means of verification	Comments
of the border crossings													
Guide for the pilot plan for schools with safe school environments	Number	0	2020	0	0	0	2	0	0	0	2		Optional link 15
Creation of direct jobs in the works	Number	0	2020	830	830	830	150	150	150	150	830	Inspection and contractors' report	

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country	Paraguay
Project number:	PR-L1174
Name:	Upgrade and Maintenance Project for National Route PY12, Nanawa Junction to General Bruguez Segment and Access Roads
Executing agency:	Ministry of Public Works and Communications (MOPC)
Prepared by:	Fernando Glasman, Jorge Seigneur, and Jorge Luis Gonzalez (fiduciary specialists)

I. EXECUTIVE SUMMARY

1.1 The institutional assessment for the project's fiduciary management was based on: (i) the fiduciary context of the country; and (ii) the findings from the fiduciary risk assessment and the project risk management workshop; and (iii) the institutional capacity assessment of the executing agency, conducted in June 2020. This assessment was used in preparing the fiduciary agreements applicable to project execution.

II. FIDUCIARY CONTEXT OF THE COUNTRY

2.1 Overall, the country systems for financial management have a medium level of development. However, these systems must be supplemented for the execution of Bank-financed projects. Specific financial reports are prepared through auxiliary accounting systems. Financial control tools such as the Integrated Financial Management System (SIAF), the Integrated Accounting System, and other subsystems allow the executing agency to transfer payments to suppliers through the Central Bank of Paraguay under acceptable conditions. External control is currently handled by independent auditing firms.

2.2 In the past few years, Paraguay's national public procurement system (SCSP) has shown great progress in terms of efficiency and transparency, as a result of the creation of its lead agency, the National Public Procurement Office, which enabled implementation of a procurement transaction platform with electronic procedures like the electronic reverse auction, a system of suppliers, and the statistical information system. Paraguay's public procurement information system has been used in Bank-financed operations, as have the country electronic reverse auction and competitive bidding subsystems, for the amounts and categories specified in the agreement governing the use of these subsystems signed on 17 June 2014.

III. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

3.1 The project execution unit (PEU) will be in charge of project execution. It reports to the Highway Department of the Office of the Deputy Minister of Public Works and Communications, will represent the executing agency in the administrative aspects of the program, and is also assigned to executing operations 2934/OC-PR, 2935/BL-PR, 3372/OC-PR, 3837/OC-PR, 4402/OC-PR, 4915/OC-PR, and 4916/KI-PR. To support the PEU in the overall management and coordination of the execution of the projects for which it is responsible, a technical and fiduciary support consulting firm will be retained, with partial funds from each operation managed by the PEU (at present the firm is being financed with funds from loan 3372/OC-PR).

3.2 Based on the institutional capacity assessment platform and the PEU's fiduciary knowledge, this unit needs its core personnel to be reinforced in the technical and fiduciary areas so as to be able to absorb the increased operational demands of this operation. This situation is considered a crosscutting factor that is very likely to generate risks for attaining the program's objectives within the initially estimated scope, timeframe, and costs (quality). This risk will be mitigated as indicated in section 4.

IV. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

4.1 The assessments performed reveal that the opportunities for improvement should focus on:

- Implementation of the program Operating Regulations and development of profiles for positions at the PEU;
- Strengthening the accounting and internal control areas in the Bank's financial management policies;
- Hiring of staff to reinforce the financial and procurement management areas.

4.2 **Procurement management.** The analyses of the executing agency showed the main areas for improvement to be the: (i) difficulties in finding procurement specialist candidates; (ii) slowness in evaluating bids and awarding contracts, due to the necessary reviews and to decisions being concentrated at the highest level of the institutional hierarchy, in addition to other reasons including the intervention of several ministry departments in the bidding process and the large number of operations the PEU is executing; and (iii) large number of contract-amending agreements that exceed 20% of the original amount. The following mitigation measures have been established: (i) general plan calls for contracting procurement staff to build a database of résumés, and contract them for fiscal years; (ii) provide training on using and enforcing the new procurement policies; (iii) in the program Operating Regulations, which will be approved by resolution, provide for the different types of procurement processes with an estimated timeline, and delegate approval of small, low-risk contracts; (iv) use reference costs (results of a market analysis and where possible, with estimated budgets). The PEU may open the call for tenders and contract a technical and fiduciary

support consulting firm, which will provide human resources for fiduciary management in line with PEU's established profiles, required for program execution.

4.3 **Financial management.** Establish basic functions in the PEU to mitigate risks of overlapping functions with the various operations it is executing.

V. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE CONTRACT

5.1 The following agreements and requirements should be included in the special provisions:

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

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

5.4 For the purposes of the provisions of Article 4.10 of the General Conditions, the parties agree that the exchange rate to be applied will be the one indicated in section (b)(ii) thereof. The agreed-upon exchange rate will therefore be the rate on the effective date upon which the borrower, executing agency, or any other person or legal entity authorized to incur expenditures, makes the respective payments to the contractor, supplier, or beneficiary. To determine the equivalent amount of expenses incurred in local currency to be reimbursed from the local contribution or loan proceeds, the agreed-upon exchange rate will be the rate at the time of the relevant payment to the contractor, supplier, or beneficiary by the borrower, executing agency, or any other person or legal entity authorized to incur such expenditures.

VI. FIDUCIARY AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

6.1 The applicable procurement policies for this loan are provided in documents GN-2349-15 and GN-2350-15. The Bank's Board of Executive Directors has also approved, in document GN-2538-11, the use of the SCSP's electronic reverse auction and competitive bidding subsystems (Law 2051/03). Other country systems approved after project approval will be used automatically, as will be indicated in the procurement plan.

A. Procurement execution

6.2 **Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and nonconsulting services[1] subject to international competitive bidding (ICB) will be executed using the standard bidding documents issued by the Bank. In turn, bidding processes subject to national competitive bidding will be executed using the national competitive bidding documents agreed upon with the Bank. The project's sector specialist is responsible for reviewing the technical specifications for procurement. No direct contracting is initially anticipated.

[1] Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-15) paragraph 1.1: Nonconsulting services are treated as goods.

6.3 **Selection and contracting of consultants.** Consulting services contracts generated under the project will be executed using the standard request for proposals issued by or agreed upon with the Bank. The project's sector specialist is responsible for reviewing the terms of reference for contracting consulting services.

(i) **Selection of individual consultants.** Pursuant to the procurement policies contained in document GN-2350-15.

(ii) **Training.** Procurement workshops will be held on the new policies set forth in documents GN-2349-15 and GN-2359-15, including sustainable procurement criteria.

(iii) **Use of country system.** Pursuant to document GN-2538-11 of October 2013, the SCSP's electronic reverse auction and competitive bidding subsystems may be used in Bank-financed operations for:

a. All contracts for goods and nonconsulting services subject to the use of the electronic reverse auction procedure under the SCSP, provided the amount is below the Bank-established threshold for the shopping method for off-the-shelf goods (for reference, US$250,000);

b. All contracts for works involving amounts below the Bank's established threshold for use of the shopping method for complex works (for reference, US$250,000), and contracts for goods and nonconsulting services up to the amount established by the Bank for the use of the shopping method for complex goods and services (for reference, US$50,000);

c. Contracts for amounts equal to or greater than the aforementioned amounts will be governed by Bank policies (document GN-2349-15).

6.4 Section 1 of the Bank policies (document GN-2349-15) will be applicable in all executed contracts, regardless of amount or procurement modality. Any system or subsystem approved subsequently will be applicable to the operation. The procurement plan for the operation and updates thereto will indicate which contracts will be executed through approved country systems.[2]

6.5 **Advance procurement/Retroactive financing.** Not anticipated for this operation.

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

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

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

[2] If another system or subsystem is approved by the Bank, it will be applicable to the operation, in accordance with the loan contract.

Table 2. Amounts by procurement type

Total works	173,500,000	80.7%
Total consulting firms	22,465,000	10.4%
Total other (payments for environmental services)	810,000	0.4%
Total transfers	1,735,000	0.8%
Contingencies and escalations	16,490,000	7.7%
	215,000,000	**100%**

6.7 **Procurement supervision.** All procurement and/or contracting processes governed by the procurement policies set forth in documents GN-2349-15 and GN-2350-15 will be subject to ex ante review by the Bank, taking into account the position of the Ministry of Finance on the matter. All procurement and/or contracting processes governed by the SCSP electronic reverse auction and competitive bidding subsystems (document GN-2538-11) will be supervised through the country system.[3]

6.8 **Special provisions.** No special provisions are anticipated other than those indicated in paragraph 5.

6.9 **Sustainable government procurement.** Sustainability criteria may be applied in the project bidding requirements and specifications (Technical Note IDB-TN-1542 "Green Procurement").

6.10 **Records and files.** Project reports will be prepared and filed using the systems, formats, and procedures stipulated by or agreed upon with the Bank.

VII. Fiduciary Agreements and Requirements for Financial Execution

A. Financial management

7.1 **Programming and budget.** The PEU will centralize the coordination of project execution, with support from other MOPC units and departments as necessary. The PEU will program, manage, and execute the budget, under the zero-based budget 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.

7.3 **Information systems.** The PEU will have access to the SIAF through the Public Credit Department. Since the country systems do not issue the reports necessary for the Bank, these reports are prepared using different systems, which will require additional work from the PEU.

7.4 **Disbursements and cash flow.** Program disbursements will be made through advances of funds, which must be supported by the monthly submission of one itemized financial plan for up to six months, and one for a longer period, which can be used to determine the program's actual demand arising from the multiyear execution plan, annual work plan, and procurement plan. The second and

[3] Depending on the scope of system use, supervision may be supplemented by project audits. If so, it should be indicated herein.

subsequent disbursements will require justification of at least 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 the 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 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 office does not comprehensively include Bank-financed projects.

7.7 **External control and reporting.** The executing agency will submit annual program audit reports, prepared by an independent audit firm acceptable to the Bank, under the terms of reference previously approved by the Bank. The project's financial statements include: cash flow statements, statement of cumulative investments, the notes to these financial statements, and the statement from the project management team (executing agency). The audit report will include an evaluation of the internal control system. The project will require selection of an independent audit firm rated at the "Plus" level, to be financed with loan proceeds.

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

Table 1. Financial supervision plan

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

7.9 **Execution mechanism.** As described in Section III.A. of the loan proposal.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/20

Paraguay. Loan ____/OC-PR to the Republic of Paraguay. Upgrade and Maintenance Project for National Route PY12, Nanawa Junction to General Bruguez Segment and Access Roads

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 Upgrade and Maintenance Project for National Route PY12, Nanawa Junction to General Bruguez Segment and Access Roads. Such financing will be for an amount of up to US$215,000,000 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 ___ _____ 2020)

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