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URUGUAY

CVU PROGRAM II

(UR-L1107)

LOAN PROPOSAL

This document was prepared by the project team consisting of Andrés Pereyra (TSP/CUR), Project Team Leader; Miroslava Nevo (INE/TSP), Alternate Project Team Leader; Elías Rubinstein (TSP/CUR); Agustín Elvira and Virginia Navas (INE/TSP); Nadia Rauschert and David Salazar (FMP/CUR); Alonso Chaverri-Suarez (LEG/SGO); Ana Castillo (MIF/CUR); and Nicolás Rezzano (consultant).

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ELECTRONIC LINKS

REQUIRED

1. Development Effectiveness Matrix (DEM)
2. Annual work plan and multiyear execution plan
3. Monitoring and evaluation plan
4. Environmental and social management report
5. Procurement plan

OPTIONAL

1. Economic analysis
2. Financial analysis
3. Institutional analysis (ICAS)
4. Environmental and social analysis
5. Analysis of detailed designs and road conservation policies
6. Regional integration
7. Evaluation report on modifications to the CVU concession
8. PPP road projects to be studied and structured
9. Technical report on the PPP process in Uruguay
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ABBREVIATIONS

AADT	Average annual daily traffic
CND	Corporación Nacional para el Desarrollo [National Corporation for Development]
CVU	Corporación Vial del Uruguay [Road Corporation of Uruguay]
DNV	Dirección Nacional de Vialidad [National Highway Department]
EIRR	Economic internal rate of return
ESMP	Environmental and social management plan
HDM-4	Highway Development and Management Model 4
ICAS	Institutional Capacity Assessment System
ICB	International competitive bidding
IES	Índice de estado superficial [surface condition index]
MEF	Ministry of Economy and Finance
MTOP	Ministry of Transportation and Public Works
NCB	National competitive bidding
OC	Ordinary Capital
OEL	Optional electronic link
PPP	Public-private partnership
REL	Required electronic link
RVP	Red Vial Principal [Primary Road Network]
UNASEV	Unidad Nacional de Seguridad Vial [National Road Safety Unit]
VAT	Value-added tax
veh-km	Vehicle-kilometer
VOC	Vehicle operating costs

PROGRAM SUMMARY

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Financial Terms and Conditions				
			Flexible Financing Facility[a]	
Borrower: Corporación Nacional para el Desarrollo [National Corporation for Development] (CND)			**Amortization period:**	20 years
Guarantor: Eastern Republic of Uruguay			**Original weighted average life:**	12.75 years
			Disbursement period:	4.5 years
Executing agencies: CND and Corporación Vial del Uruguay (CVU)			**Grace period:**	5.5 years
Source	**Amount (US$)**	**%**	**Inspection and supervision fee:**	[b]
IDB (OC):	76,000,000	85%	**Interest rate:**	LIBOR-based
Local:	13,500,000	15%	**Credit fee:**	[b]
Total:	89,500,000	100%	**Currency of approval:** U.S. dollars drawn from the Bank's Ordinary Capital (OC) resources	

Program at a Glance

Objective/description. The program's general objective is to preserve the road assets in the Primary Road Network (RVP) and reduce the accident rate on those roads. The specific objectives are to: (i) lower transportation costs (vehicle operating costs and travel time) for the RVP segments targeted by the program; and (ii) increase private financing of road infrastructure.

Special contractual conditions precedent to the first disbursement of the loan proceeds: As a condition precedent to the first disbursement, a specific agreement under the concession contract must have entered into force, with the approval of the Executive Branch of the Eastern Republic of Uruguay, on the terms previously agreed upon with the Bank (see paragraph 3.11).

Special contractual conditions for execution:

- Special condition for execution: The borrower will provide evidence of MEF authorization for each request for disbursement of the loan proceeds (see paragraph 3.15).
- Special condition for execution of Component 1: Prior to the start of each of the works projects planned for Component 1, the borrower, through the executing agency, will demonstrate that the necessary personnel have been designated and/or firms hired to supervise construction (see paragraph 2.11).
- Special condition for execution of Component 2: Prior to the start of each activity under Component 2, or prior to retroactive recognition of expenditures chargeable against the Component 2 resources, as the case may be, evidence must be provided of the agreement between the CND, the Ministry of Transportation and Public Works (MTOP), and the Ministry of Economy and Finance (MEF) authorizing the use of program resources to finance the activity (see paragraph 3.12).

Environmental and social management: As an environmental and social contractual condition for Component 1, the borrower, through the executing agency, will verify that the respective contractor has obtained prior environmental authorization for the corresponding quarry prior to start of each of the works projects planned under this component (see paragraph 2.8).

Special clause. The deadline for the physical start of works will be 3.5 years after the effective date of the loan contract (see paragraph 3.13).

Exceptions to Bank policy: None.

Program qualifies as:[c] SV ☑ PE ☐ CC ☐ CI ☑

[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 and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

[b] 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 applicable policies.

[c] SV (small and vulnerable countries), PE (poverty reduction and equity enhancement), CC (climate change, sustainable energy, and environmental sustainability), CI (regional cooperation and integration).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem to be addressed, and rationale

1.1 In the last ten years, Uruguay has grown at an average annual rate of 5.7%, well above the 2% trend in the previous three decades.[1] This growth has largely been buoyed by rising agricultural production driven by the intensive transformation of the sector in the last decade, and has led to a sharp increase in the demand for transportation services and infrastructure.

1.2 **Strong growth in forestry and agricultural production.**[2] Driven by the forestry policy introduced in the mid-1990s, timber production rose from 2.2 million tons in 2000 to 7.8 million in 2012. This jump was caused primarily by the production of wood for industrial use (chiefly pulp), which climbed from 54% of production in 2000 to 80% in 2012. This led to the extension of forested areas into new regions of the country, growing from 250,000 hectares to nearly 1 million during this period.[3]

1.3 The agricultural sector also saw significant development over the last decade. Broadly favorable global commodity prices and the introduction of technology drove an expansion of farmed area from 1.2 million hectares in 2005 to 2.6 million in 2010, resulting in a doubling of output from 3 million tons to more than 6.5 million in this time frame.[4]

1.4 **Impact of increased loads on road infrastructure.** The surge in agroindustrial production has translated into greater demand for transportation infrastructure and services. As railroads are not well developed,[5] the bulk of this demand growth has fallen on roads. From 2005 to 2012, truck traffic on national routes has risen at an average annual rate of more than 13%, well above the trend of 3% per year seen in the country a little more than ten years ago.[6]

1.5 Not only has the traffic flow of heavy vehicles increased in the last decade, but the origin-destination matrix of freight transport has also changed. The radial Primary Road Network (RVP)[7] going into Montevideo has seen an increase in vehicle flows, but at the same time a new trip matrix has developed on a second road network, consisting of secondary roads that cut across the first, connecting

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1 Source: Central Bank of Uruguay. www.bcu.gub.uy.

2 Agricultural exports have grown steadily over the last decade. In 2004, at US$3 billion, they accounted for 50% of the country's exports for the year; in 2013, at US$6.1 billion, they represented a little over 60% of total exports. Source: Uruguay XXI. http://www.uruguayxxi.gub.uy.

3 Source: Dabezies, Martín et al. "Procesos logísticos en las principales cadenas agropecuarias" [Logistical Processes in the Main Agricultural Chains]. IDB 2014, operation ATN/JF-12320-UR.

4 Agricultural Sector Technical Note prepared for the Bank's country strategy with Uruguay, 2011 (document GN-2626).

5 The railway network is small in size, and there have been institutional hurdles to modernization and capture of a larger share of freight transportation. Source: "Logística de cargas e infraestructura and servicios de transporte en Uruguay" [Freight Logistics and Transportation Infrastructure and Services in Uruguay], IDB 2015.

6 Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

7 The RVP contains the national road system segments categorized as international corridors or primary roads.

the country's rural interior directly with the bulk port of Nueva Palmira[8] and the pulp plants in Conchillas and Fray Bentos. The new realities of the country's agroindustrial sector are currently causing intensive use of 56% of the national road system for transport of the main agricultural flows, with approximately 40% of this length being roads previously categorized as second-tier, which therefore do not have the proper geometric characteristics for the current traffic volume and composition.[9]

1.6 **National road system.** Uruguay has approximately 40,000 kilometers of roads. The Dirección Nacional de Vialidad [National Highway Department] (DNV) under the Ministry of Transportation and Public Works (MTOP) has jurisdiction over the 8,800 kilometers that connect the departments' capitals and each department's second-largest cities, border crossings, and the main ports;[10] more than 3,900 kilometers are categorized as RVP.[11] Of these 8,800 kilometers under its jurisdiction, the DNV manages 7,200 kilometers directly, while 1,600 kilometers of the RVP are concessioned to Corporación Vial del Uruguay (CVU)[12] (see paragraphs 1.14, 1.15, and 3.3). Concessions to private entities are not well developed, currently covering just 120 kilometers of the road system. Average annual daily traffic (AADT) on the RVP is around 1,200 to 3,000 vehicles, except in the metropolitan area, where it tops 4,000 vehicles, and in the tourist routes in southern Uruguay, where it is over 12,000 vehicles. In the secondary road system, AADT is about 600 to 1,200 vehicles.[13]

1.7 **Maintenance condition.** After the economic crisis of 2002, when the national road system's maintenance deficit affected 60% of its length, a major effort was undertaken to improve conditions. This effort resulted in good maintenance

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[8] The Nueva Palmira port complex exports 75% of the country's bulk production; the remainder is transported almost entirely through the port of Montevideo. Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

[9] Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

[10] This network supports the movement of goods and people throughout the country, and allows for the transport of exportable production to ports and border crossings. The remainder, which essentially consists of urban roads and roads that penetrate into rural areas, is under the jurisdiction of departmental governments.

[11] The part of the highway network under DNV jurisdiction that is not part of the RVP is classified as the secondary road network.

[12] Corporación Nacional para el Desarrollo [National Corporation for Development] (CND) is a public corporation operating under private law whose purposes include: (i) incentivizing business development with private-sector participation; (ii) fostering the startup of new businesses, strengthening existing ones, and acquiring full or partial equity interests in them; (iii) assisting with the sector economic policy execution through the promotion of equity investment in priority business sectors; (iv) contributing to the expansion of the securities market, promoting the creation of corporations, cooperatives and other forms of business comanagement; (v) promoting capital expansion in national industries where scale production is required and private-sector resources are insufficient; and (vi) acting as concessionaire for public infrastructure projects in transportation, energy, telecommunications, or any other type of infrastructure of general use, as allowed by law, contracts, and agreements assigned to it. Under this last item, the CND has established a wholly owned corporation called Corporación Vial del Uruguay (CVU) (see paragraph 3.3).

[13] Source: DNV Transit Survey System (2012).

condition[14] for 50% of the system's roads in 2009.[15] That year, however, marked the start of a new process of deterioration that by 2012 had affected 55% of the road system, essentially because the pavement on the secondary network, most of which is granular pavement with sprayed bituminous surfacing, was not prepared for the new demand it had absorbed, reaching levels of deterioration that cannot be addressed with maintenance activities. In 2012, 90% of the RVP was in good condition, but only 30% of the secondary network was in good condition.

1.8 Although the pavement structure of RVP roads is generally adequate, the increasing flow of heavy transport has led to rutting[16] of the surface layers. This pavement defect causes a loss of driving comfort and poses a safety hazard on overpasses and when it rains.

1.9 Recent studies have estimated that the investment needed to close the road infrastructure investment gap[17] is on the order of US$2 billion over the next five years.[18] This figure reflects resources spent on: (i) RVP rehabilitation and maintenance; (ii) geometric and structural upgrades to the secondary road network, the use of which has grown substantially owing to the transport of timber and grains to pulp mills and the Nueva Palmira port, respectively; and (iii) investments to enhance road safety, including ring roads around population centers, improvement of urban throughways, and implementation of third lanes.[19]

1.10 **Technological innovation.** Studies commissioned by the Corporación Nacional para el Desarrollo [National Corporation for Development] (CND) at the MTOP's request for 2,600 kilometers of the RVP (including the network concessioned to CVU) found that in many cases the traditional strategy of maintenance based on hot-mix asphalt concrete overlays should be replaced with techniques being piloted by the DNV to restore the surface condition of pavement without adding more structural elements.[20]

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[14] Pavement is considered to be in "very good" condition if the surface condition index (IES) is above 85; "good" if between 85 and 70; "fair" if between 70 and 50; and "poor" if it has a lower rating. The methodology is described in an instructional guide for visual pavement assessment developed by the DNV, based on the Performance Condition Index (ASTM D6433-11) and adapted and calibrated to local conditions.

[15] From 2003 to 2009, the length of the national road system in good condition rose from 19% to 28%, with the length in fair condition remaining close to 28%. Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

[16] Rutting is a defect in the surface layers of the pavement that presents itself as a continuous depression in the wheel tracks, produced by plastic deformations in the base of the asphalt layers caused by loads and weather. In the past, given that demand for heavy transit was far lower than today, preference was given to more flexible wearing courses, to provide greater comfort for drivers of automobiles.

[17] Concept defined in: "La brecha de infraestructura en América Latina y el Caribe" [The Infrastructure Gap in Latin America and the Caribbean], Economic Commission for Latin America and the Caribbean (ECLAC), 2011.

[18] Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

[19] Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015.

[20] The DNV has been promoting the application of hydraulic concrete pavement over asphalt concrete structures (whitetopping) and the use of thin asphalt mixes, as well as microsurfacing. It is also currently analyzing recycling techniques using foamed asphalt and the application of various granular stabilization technologies. See final consultant's report for modification of the CND-MTOP concession contract, Consorcio Ingeniería del Sur (OEL7).

1.11 **Road safety.** The increase in travel overall, and particularly in the transit of heavy vehicles, has led to higher accident rates on national roads. Official statistics show that the number of accidents rose 39% from 2005 to 2013, with a 43% increase in the number of injuries and fatalities. Of all accidents, 70% occur on the RVP, which accounts for 73% of injuries and 80% of fatalities;[21] 35% of accidents occur on the road network concessioned to CVU.[22]

1.12 **The Uruguayan government's strategy.** Faced with the challenge of adapting the available road infrastructure to new and growing demands, the Government of Uruguay plans to: (i) maintain the RVP, fine-tuning the interventions on it (adapting technology that best addresses problems stemming from the change in traffic patterns, improving contractual models to introduce greater incentives for economic efficiency, and focusing on enhancing road safety); and (ii) adapt the infrastructure of the most heavily traveled secondary network roads (either by rehabilitating the support structure of excessively degraded highway segments, or by adopting platform dimensions appropriate to the volume and composition of current traffic, to make them compatible with service-level maintenance).

1.13 Three execution models are envisioned for this purpose: (i) contracting by CVU (and, to a lesser extent, by the DNV) of rehabilitation and maintenance works, with this model being used most for conservation of the RVP; (ii) contracting through a public-private partnership of capacity-expansion, rehabilitation, and maintenance works, with this model being used most for updating geometry and structure, as well as for maintaining the road segments that have seen substantial changes in traffic volume and characteristics; and (iii) execution by the DNV with its own equipment and human resources, to maintain lower-tier, less-traveled roads.[23]

1.14 **Arrangements for execution by CVU.** In October 2001, the MTOP and the CND signed a cooperation agreement under which the MTOP would contract the CND to perform infrastructure works under a public works concession (see paragraph 3.6). This agreement sets out the general conditions governing the relationship between the two institutions, which included: (i) that the CND could set up companies for purposes of managing the contract, which resulted in the immediate creation of CVU; (ii) that works execution would be contracted out by the concessionaire following procedures analogous to those of the public sector and that each contract would require MTOP approval; and (iii) that the DNV would provide technical assistance to CVU during execution, meaning that technical management of CVU would be performed by the DNV (engineering designs, selection of winning bids, and works supervision).

1.15 Under this arrangement, CVU is responsible for maintaining 1,600 kilometers of the RVP, for which it receives toll revenue as well as subsidies provided out of the MTOP's budget. The DNV provides the engineering designs and the technical specifications for the contracting of road works and maintenance, and

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[21] Source: DNV Traffic Accident Analysis System.

[22] Source: Information provided by CVU from the UNASEV database.

[23] Through its regional offices, the DNV performs maintenance on the lower-tier part of the road system—essentially the part with very little traffic. This is generally the secondary and tertiary network, with granular pavement and in some cases also a sprayed bituminous surfacing.

performs works supervision, under the technical assistance agreement. CVU engages private firms through competitive procedures supervised by the DNV. Based on authorizations under the concession contract, CVU has obtained multilateral financing (including program UR-L1022) and local capital market financing for execution of the works agreed upon with the MTOP.

1.16 **Public-private partnerships (PPPs).** Law 18786 on PPPs[24] entered into force in September 2011; its regulations were issued in Decree 17/012 of 26 January 2012. The institutional arrangements established in it call for the involvement of multiple public agencies in the process of evaluating and implementing a PPP: (i) the contracting public agencies (the MTOP in the case of roads-related PPPs), which undertake contracting, control, and contract regulation; (ii) the Ministry of Economy and Finance (MEF) and the Oficina de Planeamiento y Presupuesto [Office of Planning and Budget] (OPP), which are involved sequentially in authorization of the PPP; and (iii) the CND, as the public agency to which the PPP contracting agencies can turn to structure their projects.[25]

1.17 In 2013 and 2014, two PPP pilot projects were implemented by the Ministry of the Interior and the MTOP, respectively.[26] In both cases, the contracting agencies selected the CND to structure the projects. The administration that took office in March 2015 reaffirmed its willingness to promote PPPs as an implementation mechanism, and, in the roads sector specifically, has begun to study seven PPPs for an estimated US$712 million.[27]

1.18 Since the PPP law was passed in 2011, the CND has built up its technical capacity to develop, evaluate, and structure PPP projects. Nevertheless, it will have to scale up in order to be able to structure this program, given its size.[28]

1.19 **Lessons learned**. The CVU Highway Program (loan 2041/OC-UR)[29] was structured as a performance-driven loan for the financing of rehabilitation and maintenance contracts, which were evaluated as successful in terms of enabling effective conservation of the network concessioned to CVU. The program made it possible to align the incentives for public agencies and for contractors to strive for effective, efficient road system maintenance.[30] The implementation of external verification of program outcomes and management systems for works

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[24] Law 18786 of 19 July 2011 on Public-Private Partnership Contracts for the Implementation of Infrastructure Works and Delivery of Related Services.

[25] The contracting agency may choose the CND or another private entity specialized in technical and financial structuring. Choosing the CND as arranger does not involve a competitive process, which is required if the decision is made to engage a private firm.

[26] The Interior Ministry project for construction and operation of a jail was awarded in May 2014, the financial closing has already taken place, and construction has begun. The MTOP project for rehabilitation of Route 21-24 has been awarded, but has not yet reached financial closing.

[27] See terms of reference for the MTOP's contracting of the CND, which describe the PPP projects to be analyzed, as well as the studies and financial structuring services to be performed (OEL8).

[28] Source: Technical report on the PPP process in Uruguay, MIF, 2015 (OEL9).

[29] The program financed with loan 2041/OC-UR was approved by the Bank's Board of Executive Directors in October 2008 and was completed in December 2013.

[30] See program completion report for loan 2041/OC-UR.

certification, payment execution, financial planning, and procurement was also considered positive.[31]

1.20 Uruguay has made progress, as has much of the region, in developing government regulations and capabilities for spurring investment through PPPs, following international/regional best practices,[32] including establishment of specific PPP units, development of guidelines and tools for project selection, evaluation, structuring, and monitoring, as well as the design, structuring, and market launch of pilot projects. The experience has yielded lessons regarding: (i) the need for leadership at the highest level; (ii) caution with regard to importing legal concepts that are not compatible with local legislation; (iii) the need to overcome problems of coordination between public institutions; and (iv) the importance for the PPP process of training public agency staff.[33] The roads-related PPPs financed by the program will be structured using the previously developed guidelines and tools in an environment of strong political leadership, enhanced technical capabilities, and better coordination among public agencies.[34]

1.21 **The Bank's country strategy with Uruguay (document GN-2626).** In relation to transport, the country strategy calls for the Bank to participate in maintenance of the primary, secondary, and tertiary network; and to support the institutional strengthening of: (i) the MTOP in its planning and policy-making roles; and (ii) the DNV in its road maintenance management capacity. In terms of expected outcomes, the program is fully consistent with the country strategy, as both seek to improve maintenance of the national road system. It is also reflected in the update to the 2015 Operational Program Report.[35] Transportation is expected to remain a priority area for the Bank's work with the country.

1.22 This operation will also contribute to the priorities of the Ninth General Capital Increase (see document GN-2733), as they relate to: (i) lending to small and vulnerable countries; and (ii) lending for regional cooperation and integration, in that it contributes to the objectives of cross-country focus and regional additionality by improving and maintaining the integration corridors. The program is aligned with the strategy for Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), in that it: (i) supports infrastructure for regional and global integration; (ii) fosters financing mechanisms and leverages private sector participation in infrastructure; and (iii) promotes ongoing improvements in infrastructure governance. The program is also aligned with the Transportation Sector Framework Document (document GN-2740-3), whose activities include the rehabilitation of road systems to ensure full utilization of existing assets, incorporation of new technologies, and strengthening of the institutions responsible for maintaining those assets.

1.23 **Integration and logistics**. This program contributes to the goal of financing operations in support of regional and global cooperation and integration, as it

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[31] See program completion report for loan 2041/OC-UR.

[32] See Lessons Learned and Best Practices in Public-Private Partnership Projects, MIF 2015, OEL10.

[33] See technical report on the PPP process in Uruguay, MIF 2015, OEL9.

[34] See technical report on the PPP process in Uruguay, MIF 2015, OEL9.

[35] 2015 Country Program Document.

meets the criterion of cross-country focus and regional additionality (see document GN-2733) by yielding positive results directly related to regional integration, such as higher average truck speed in areas that connect Uruguay's ports and border crossings with Argentina and Brazil to centers of production and consumption, lower logistics costs, and improved infrastructure coverage, quality, and connectivity. In addition, the infrastructure under this program falls within the area of influence of the MERCOSUR-Chile Hub, which is part of the project portfolio under the Initiative for the Integration of the Regional Infrastructure in South America and the South American Infrastructure and Planning Council.

1.24 **Rationale.** The program seeks to support the government's strategy to conserve and improve the road infrastructure that is used most heavily for export cargo and connects the inland area with the main outlets for agricultural production (ports and pulp mills). Two types of support are envisaged. First, rehabilitation and maintenance of integration corridors will be financed through CVU, enhancing interventions in the areas of road safety and technological innovation and continuing the results-based conservation policy. Second, interventions will be supported for secondary network segments that need to be adapted for heavier traffic and for which private financing will be sought through the PPP mechanism; in this sense, the program will finance the technical and financial structuring of projects for private sector execution and financing.

B. Objectives, components, and cost

1.25 **Objectives.** The program's general objective is to preserve the road assets in the Primary Road Network (RVP) and reduce the accident rate on those roads. The specific objectives are to: (i) lower transportation costs (vehicle operating costs and travel time) for the RVP segments targeted by the program; and (ii) increase private financing of road infrastructure.

1.26 **Eligibility criteria for works.** The program has a representative sample of 69%, consisting of Route 2[36] (143 kilometers) from Florencio Sánchez (182k400) to the international bridge (308k500), with the addition of the southern access road to Fray Bentos and the feeders connecting to the port, at an estimated cost of US$23.1 million; and Route 3[37] (173.8 kilometers) from 67k300 to 243k000, at an

[36] Route 2 has an AADT of 2,800 vehicles, 969 of which are trucks, on the segment from Florencio Sánchez to Mercedes; the Mercedes–international bridge segment has 2,300 vehicles, including 1,230 trucks. Source: DNV Transit Survey System, 2012. The highway provides the main connection to the Fray Bentos border crossing, which accounts for the largest volume of trade with Argentina—approximately 910,000 tons. The highway is also one of the main transit arteries for dry bulk goods and carries the entire flow of roundwood for one of the pulp mills (554,000 and 2.56 million tons per year, respectively). Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay, IDB 2015. "Transporte Automotor de Carga en Uruguay" [Automotive Freight Transport in Uruguay], IDB, 2013.

[37] The segment of Route 3 between Route 1 and San José has an AADT of 4,260 vehicles, with trucks accounting for approximately 1,200 of that volume. The next segments, from San José to Paso del Puerto, have an AADT of 2,600 vehicles, 900 of them trucks. Source: DNV Transit Survey System, 2012. The Route 1–San José segment of this highway carries the majority of international flows toward the Fray Bentos and Paysandú border crossings—910,000 and 112,000 tons, respectively. This segment also accounts for the lion's share of timber flows toward the pulp mills in southern Uruguay—1,555,000 tons—while the other segments carry a little under 200,000 tons. Route 3 also carries 430,000 tons of dry bulk goods and 163,000 tons of rice. Source: Freight Logistics and Transportation Infrastructure and Services in Uruguay IDB 2015. Automotive Freight Transport in Uruguay, IDB, 2013.

estimated cost of US$39.3 million. As this is a multiple works operation, any works to be included in the program must meet the following eligibility criteria: (i) part of an international corridor; (ii) socioeconomic viability studies completed and an economic internal rate of return of 12% or more; and (iii) satisfies the program's social and environmental requirements. The program is organized into components as described below.

1.27 **Component 1. Rehabilitation and maintenance of the RVP**. This component will finance: (i) contracts for RVP rehabilitation and maintenance; (ii) technical, environmental, and economic studies for road works; (iii) contracting of works supervision; (iv) studies necessary to adopt the works management manual; (v) support for technology adoption; (vi) road safety studies and audits; and (vii) program administration costs.

1.28 Rehabilitation works consist of restoring the structure and surface regularity of existing pavement. Generally, these works are confined to the right-of-way and are essentially carried out on the existing structure, without involving geometric modifications. Also included are works focusing directly on improving safety conditions on the roads in the network under CVU's responsibility, including road signs and pavement markings, installation of pedestrian crosswalks in population centers, and the application of road safety devices such as mechanisms for dissipating energy and reducing speed. These activities will be intensified in a targeted manner based on the results of the road safety audits to be conducted for the segments included in the program.

1.29 **Component 2. Support for PPP design and implementation processes and design of other capital market instruments.** This component will finance: (i) contracts for technical, economic, and financial project appraisal; (ii) activities carried out by the CND to structure the PPPs for infrastructure works and related service delivery;[38] and (iii) structuring of other financial instruments to provide capital market access, for purposes of financing rehabilitation and maintenance of other RVP segments concessioned to CVU.

1.30 **Cost and financing**. The total cost of the program is US$89.5 million. Of that amount, the Bank will finance US$76 million with Ordinary Capital resources in U.S. dollars, and US$13.5 million will be financed with the local contribution (see paragraph 3.10).

[38] See terms of reference for the MTOP's contracting of the CND to perform the PPP appraisal and structuring activities (OEL8).

Table 1. Program financing (in US$000s)

Components	IDB	Local contribution	Total
1. Rehabilitation and maintenance works	**73,200**	**13,500**	**86,700**
Rehabilitation and maintenance of works	71,800	13,500	85,300
Administrative costs	1,400		1,400
2. Support for PPP design and implementation processes, and design of other capital market instruments	**2,700**		**2,700**
Technical, economic, and financial studies	1,100		1,100
Activities by the CND to structure the PPPs	1,200		1,200
Structuring of other financial instruments	400		400
3. Audits, monitoring, and evaluation	**100**		**100**
Total	**76,000**	**13,500**	**89,500**

C. Key results indicators

1.31 **Results and indicators**. The main program outcomes relate to: (i) lower vehicle operating costs on the targeted segments; (ii) a reduced international roughness index (IRI) score on targeted segments; and (iii) an effective maintenance policy as measured by weighted road asset value within the RVP as a whole (Results Matrix)**.**

1.32 **Economic assessment.** The economic assessment (cost-benefit analysis) of the works in the sample used the Highway Development and Management Model 4 (HDM-4), the standard methodology in the sector. The with-program scenario, in which the program's proposed maintenance strategy is implemented, was compared with the counterfactual, in which only very basic maintenance tasks are performed as long as the route remains serviceable. The transportation cost differentials, which represent the benefits of each intervention, were estimated, as were the shadow-price costs. The economic internal rate of return (EIRR) exceeded the indicative value of 12% in all cases, a result robust to potential 20% cost increases or benefit reductions (OEL1).

Table 2. Results of Cost-Benefit and Sensitivity Analyses

Project	Length (kilometers)	Investment cost (US$000)	EIRR (%)			
			Base	Sensitivity analysis[39]		
				Investment cost +20%	Benefits -20%	Combined
Route 2	143	23,103.0	25.8	21.2	20.1	15.1
Route 3	173.8	50.0	26.2	21.6	20.6	16.0

[39] Based on the experience gained in applying the stochastic cost calculation methodology to similar road programs, a 20% increase in costs and a 20% reduction in benefits are understood as a margin within which projects are highly likely to fall. See the example of application of this methodology to a Bank-financed program in São Paulo, Brazil, implemented by an agency similar to CVU.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

2.1 The Bank financing will take the form of an investment loan under the multiple-works modality,[40] with execution and disbursement periods of 4.5 years.

B. Environmental and social safeguard risks

2.2 Taking into account the Environment and Safeguards Compliance Policy (Operational Policy OP-703), the nature and objectives of the program, and its environmental and sociocultural impacts and risks, the program was classified as category "B" and therefore requires only an environmental and social management plan (ESMP) focused on specific issues related to works construction. Pursuant to Article 2 of Decree 349/005 of 21 September 2005, establishing the implementing regulations for the Environmental Impact Assessment Act (Law 16466 of 14 January 1994), the only components of the road maintenance and rehabilitation works under the CVU Program II that require prior environmental authorization are the quarries from which materials will be extracted.

2.3 The proposed program will have positive economic as well as social and environmental impacts, by initially improving and then maintaining the wearing course conditions, which will preserve the country's road assets and reduce transportation costs and travel times for both freight and passengers.

2.4 Potential adverse environmental impacts associated with execution of the financed works will, owing to their simplicity and limited scale, be limited to individual instances of pollution of water, soil, or air with construction waste or materials. This impact will be confined to the construction sites, will not last beyond the construction stage, and can be prevented or mitigated using known, easy-to-use environmental management measures. An ESMP for program works will lay out the environmental management measures to be included in the bidding documents and the respective contracts for execution of these works.

2.5 All road works on roads under the DNV's jurisdiction will adhere to the procedures and technical and environmental specifications contained in its Environmental Manual for Road Sector Works and Activities and included in full in the ESMP; in other words, to apply the manual is to apply the ESMP. The general environmental specifications contained in the second part of the manual are part of the DNV's General Bidding Conditions and apply to the works contracted by CVU. There will also be an environmental monitoring and control system for works, which is currently used by CVU.

2.6 Because the works will be completed within the existing right-of-way, no adverse effects are anticipated on properties or homes, environmentally or socially sensitive areas, or indigenous areas. In the event of any adverse impact on

[40] The program will finance works that are physically similar but independent of one another; whose feasibility does not depend on the execution of a particular number of works; and whose size, taken individually, would not justify execution by the Bank. Works must meet the agreed eligibility criteria for inclusion in the program (see paragraph 1.26).

environmentally or socially sensitive areas, the Environment and Safeguards Compliance Policy (Operational Policy OP-703) would be applied.

2.7 Both CVU and the DNV have the capacity to ensure sustainable implementation of the program, as well as the coordination capabilities to supervise the works from an environmental standpoint. Each works project has a construction manager who effectively oversees all matters related to the project, including environmental issues. Under Uruguayan legislation, that item represents a minimum of 3% of the total value of each works project. CVU does not definitively receive any works project with objections regarding compliance with environmental regulations.

2.8 As an environmental and social contractual condition for Component 1, the borrower, through the executing agency, will verify that the respective contractor has obtained prior environmental authorization for the corresponding quarry, prior to start of each of the works planned under this component.

C. Fiduciary risks

2.9 An institutional capacity assessment performed as part of program preparation found the institutional capacity of the CND and CVU to be satisfactory, with a satisfactory development level and low risk (OEL3).

D. Other project risks

2.10 The assessment identified two medium risks: (i) a shortage of human resources for works design and supervision; and (ii) the occurrence of roadwork accidents. Mitigation measures were also identified: (i) allow for the contracting of works supervision and inspection services under the program; and (ii) hold occupational safety workshops for contractors and supervision teams at the outset of works projects, and have the environmental audit include monitoring and supervision of the construction signage plan.

2.11 As a special condition for execution of Component 1, prior to start of each of the works projects planned for Component 1, the borrower, through the executing agency, will demonstrate that the necessary personnel have been designated and/or firms hired to supervise construction.[41]

III. Implementation and Management Plan

A. Summary of implementation arrangements

3.1 **Borrower, executing agencies, and guarantor.** The borrower and executing agency for Component 2 will be the Corporación Nacional para el Desarrollo (CND); the executing agency for Component 1 will be Corporación Vial del Uruguay (CVU). The Eastern Republic of Uruguay will be the guarantor of the operation.

[41] The works included in the program are traditional highway rehabilitation and maintenance works, with which the agencies involved in execution have extensive experience, so significant cost overruns are considered unlikely.

3.2 **The borrower.** The CND is a nongovernmental entity organized under public law.[42] The concession contract authorizes the CND, as concessionaire, to manage financing relating to the concession, including financing from multilateral banks. CND's mission also includes developing and fostering implementation of public-private partnership projects.[43]

3.3 **Executing agencies.** CVU is a corporation whose equity capital is wholly owned by the CND and whose mission is to operate the public works needed to carry out the obligations assumed by the CND under the concession contract. The CND assigned execution of the concession to CVU pursuant to the concession contract.[44]

3.4 For Component 1, CVU will have the following responsibilities, among others: (i) implement all activities needed for execution of this component, in coordination with the MEF, MTOP, and CND, as appropriate; (ii) conduct execution planning, including preparing annual work plans and six-monthly reports; (iii) prepare and update the procurement plan; (iv) prepare financial statements; (v) prepare disbursement requests; (vi) draft the final report; (vii) review the bidding documents for the procurement of consulting services, works, and goods, and send them to the Bank for its no objection, as appropriate; (viii) provide assistance and monitor the progress and execution of contracts for consulting, works, and goods procurement; and (ix) prepare and process the payments corresponding to those contracts.

3.5 For Component 2, the CND will have the same responsibilities, *mutatis mutandis*, laid out in points (i) through (ix) of the above paragraph. Additionally, the CND will send the reports, plans, requests, and financial statements it receives from CVU to the IDB, consolidating them with those corresponding to Component 2, as appropriate. The CND will open a bank account for the program and make timely transfers to CVU of the resources it needs to implement Component 1.

3.6 **The concession.** The concession was granted to the CND via a contract, dated 5 October 2001, between the MTOP as grantor and the CND as concessionaire. The original contract term of 15 years was later extended through October 2020.[45] The legal framework within which the concession contract was entered

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[42] The CND was established by Law 15785. The law authorizes the CND to take out loans in and outside Uruguay. By law, the national government holds at least 60% of CND equity capital; currently all of the CND's equity capital is in government hands. Article 34 of Law 18602 provided that the CND's mission would include acting as concessionaire of public infrastructure projects in transportation, energy, telecommunications, and any other area of public use, as assigned to it by law, contract, and/or agreement. To operate the concessions or projects granted to it, the CND may set up or acquire commercial firms or participate in specialized consortia and/or trusts.

[43] Law 18786 of 19 July 2011 on Public-Private Partnership Contracts for the Implementation of Infrastructure Works and Delivery of Related Services.

[44] The concession contract provided that the CND could set up one or more corporations for purposes of accomplishing the objectives of the concession. The assignment was authorized by Article 28 of Law 17555 on Economic Recovery. The assignment contract was signed on 18 February 2003 and approved by executive resolution, after going through the National Audit Office, on 9 April 2003. The assignment contract provides that CVU shall exercise the rights and meet the obligations under the concession contract, adhering to all applicable public works rules and regulations, as well as the stipulations of said concession contract.

[45] The concession contract and its amendments have received executive approval, after going through the National Audit Office.

into includes Decree-law 15637 on the Concession of Public Works, which empowers the grantor to subsidize the concession, and the Executive Branch to grant exemptions to the concessionaire, including value-added tax (VAT) exemptions.

3.7 The concession contract functions as a framework contract under which specific agreements may be entered into for the execution of works and projects covered by the concession. At least three specific agreements have been signed for the implementation of road infrastructure construction, rehabilitation, and/or maintenance programs. Each of these specific agreements is signed by the MTOP (grantor), the CND (concessionaire), and CVU (assignee of concession execution). The MEF also signs these agreements, as they involve the commitment of MTOP budget resources for payment of the subsidies and the VAT exemption. The specific agreements become effective once approved by the Executive Branch, after going through the National Audit Office.

3.8 The concession contract also provides for specialized technical assistance and cooperation from the MTOP, which supplies the specifications and terms and conditions as well as support and technical advisory services for contracting preparation and selection of awardees, among other tasks. According to the procedure set out in the specific agreements, design and supervision of works is the responsibility of the DNV.

3.9 The concession contract and the specific agreements provide for funding to come from both concessionaire revenues and contributions from the grantor.[46] The specific agreements under the concession contract also provide for multilateral financing, which, after those agreements were signed, the CND has obtained from the IDB, the Development Bank of Latin America (CAF), and the Fund for the Development of the River Plate Basin (FONPLATA). Accordingly, the specific agreements contain the MTOP's commitment to transfer budget resources to the CND on a subsidy basis, with clearance from the MEF, to enable the CND to cover the multilateral financing in full. This commitment remains intact even if the concession is terminated, thereby ensuring the flow of resources from the MTOP to the CND for the exclusive purpose of repaying the borrower's financial obligations under the multilateral loan contracts signed by the CND, and under the sovereign guarantee contract backing that financing.

3.10 The specific agreements also spell out the amount of the local contribution envisaged for the respective program. The local contribution is made by granting VAT credit certificates used to pay the VAT on program contracts, as the legal and contractual framework for the concession allows tax exemptions to be granted. Lastly, the specific agreements describe the mechanisms for transferring resources for the respective program (subsidies, multilateral financing, or tax credits) to CVU or the CND, as appropriate.

3.11 **Specific agreement.** For this program there will need to be a specific agreement under the concession contract, the terms of which must be substantially similar to those of the agreements signed for multilateral loans obtained by the CND in the past, as described above (see paragraphs 3.7 to 3.10). Given that this specific

[46] Pursuant to the assignment contract, CVU assumes all concession assets and liabilities, so it is CVU that receives the toll revenue.

agreement is critical, not only for smooth program execution, but also to ensure the flow of resources for repayment of the Bank loan, it must take effect before loan disbursements may begin. Therefore, **as a condition precedent to the first disbursement, a specific agreement under the concession contract must have entered into force, with the approval of the Executive Branch of the Eastern Republic of Uruguay, on the terms previously agreed upon with the Bank**. The specific agreement must be signed by the MTOP, the MEF, the CND, and CVU, and must contain: (i) the commitment of the MEF and the MTOP to transfer the budget resources needed for the CND to: (a) meet its financial obligations under the loan contract, even in the event that the concession contract is terminated; and (b) receive the local contribution for the program in a timely manner; (ii) the CND's commitment to transfer the loan proceeds and local contribution to CVU for Component 1, and CVU's commitment to use those resources in accordance with the terms of the loan contract; and (iii) the MTOP's specific preparation and technical management obligations with respect to each works project to be financed, even in the event of termination of the concession contract. Any change or modification to this specific agreement (once approved by the Bank) must be submitted for its no objection.

3.12 **Arrangements for execution of Component 2.** For execution of Component 2 activities, the CND must first receive a request from the MTOP to carry out those activities. Additionally, the MEF must authorize the use of program resources for those activities. Consequently, prior to the start of each activity under Component 2, or prior to retroactive recognition of expenditures chargeable against the Component 2 resources, as the case may be, evidence must be provided of the agreement between the CND, the MTOP, and the MEF authorizing the use of program resources to finance the activity.

3.13 **Physical start of works.** The deadline for the physical start of all works included in the program will be 3.5 years after the effective date of the loan contract.

3.14 **Procurement.** Given the identified risk level, the ex ante review method will be used above the threshold amounts given in Table 1 of Annex III, "Fiduciary Agreements and Requirements". To minimize the risk of slowing implementation of either of the components (executed by CVU and the CND), and considering the MTOP authorization process involved for the results of PPP projects, it was decided to require justification of 70% of funds advanced.

3.15 **Disbursements.** Resources will be disbursed in the form of advances of funds, based on the program's actual liquidity needs. Disbursements will be subject to ex post supervision. **As a special condition for execution, the borrower will provide evidence of MEF authorization for each request for disbursement of the loan proceeds.**

3.16 **Retroactive financing and advance procurement.** To contract out the Route 2 works (estimated at US$23.1 million), which are part of the program's representative sample, the executing agency has moved up the bidding process, and the contracts are expected to be awarded prior to the Bank's approval of the loan. Bidding procedures compatible with Bank policies are being used in this process. The process of commissioning the technical studies for the PPP structuring component, for an estimated US$1.2 million, has also begun.

3.17 The Bank may retroactively finance and charge against the loan proceeds up to US$15.2 million (20% of the loan amount) in eligible expenditures incurred by the borrower prior to the loan approval date for rehabilitation and maintenance works and technical, economic, and financial studies, provided that requirements substantially similar to those of the loan contract have been met. These expenditures must have been made on or after 10 July 2015, but in no case will expenditures incurred more than 18 months prior to the loan approval date be included.

B. Summary of arrangements for monitoring results

3.18 The aim of the monitoring plan (REL2) is to track program implementation, proposed activities, and physical and financial execution of outputs. The plan includes monitoring of three main elements: (i) program administration and controls; (ii) activities and outputs; and (iii) outcomes.

3.19 Ex ante and ex post methodologies and ex post cost-benefit analysis will be used to monitor and evaluate the expected outcomes of the program. The evaluation will be based mainly on the HDM-4 model. The ex post cost-benefit analysis of each program-financed works project will replicate the model used ex ante as part of the works feasibility studies.

Development Effectiveness Matrix			
Summary			
I. Strategic Alignment			
1. IDB Strategic Development Objectives	**Aligned**		
Lending Program	**-Lending to small and vulnerable countries -Lending to support regional cooperation and integration**		
Regional Development Goals			
Bank Output Contribution (as defined in Results Framework of IDB-9)	**-Km of inter-urban roads built or maintained/upgraded**		
2. Country Strategy Development Objectives	**Aligned**		
Country Strategy Results Matrix	**GN-2626**	**To improve maintenance of the road network.**	
Country Program Results Matrix	**GN-2805**	**The intervention is included in the 2015 Operational Program.**	
Relevance of this project to country development challenges (If not aligned to country strategy or country program)			
II. Development Outcomes - Evaluability	**Evaluable**	**Weight**	**Maximum Score**
	7.6		**10**
3. Evidence-based Assessment & Solution	**8.1**	**33.33%**	**10**
3.1 Program Diagnosis	**3.0**		
3.2 Proposed Interventions or Solutions	**2.4**		
3.3 Results Matrix Quality	**2.7**		
4. Ex ante Economic Analysis	**8.5**	**33.33%**	**10**
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	**4.0**		
4.2 Identified and Quantified Benefits	**0.0**		
4.3 Identified and Quantified Costs	**1.5**		
4.4 Reasonable Assumptions	**1.5**		
4.5 Sensitivity Analysis	**1.5**		
5. Monitoring and Evaluation	**6.1**	**33.33%**	**10**
5.1 Monitoring Mechanisms	**1.5**		
5.2 Evaluation Plan	**4.6**		
III. Risks & Mitigation Monitoring Matrix			
Overall risks rate = magnitude of risks*likelihood	**Low**		
Identified risks have been rated for magnitude and likelihood	**Yes**		
Mitigation measures have been identified for major risks	**Yes**		
Mitigation measures have indicators for tracking their implementation	**Yes**		
Environmental & social risk classification	**B**		
IV. IDB´s Role - Additionality			
The project relies on the use of country systems			
Fiduciary (VPC/FMP Criteria)			
Non-Fiduciary			
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:			
Gender Equality			
Labor			
Environment			
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			
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan			

The main objective of the project is to preserve the road assets of the Principal Road Network (RVP) of Uruguay and reduce the accident rate on it. The specific objectives are: (i) lowering transportation costs (vehicle operation costs and travel times) in the segments of the RVP that participate in the program, and (ii) increasing private financing of road infrastructure.

The project presents a complete diagnosis; however, given the small amount of impact evaluations in the sector, the proposal lacks of empirical evidence to justify its effectiveness for the impacts proposed. In terms of the results matrix, all indicators reported are SMART and have means of verification, but some impact and result indicators still lack baseline values. The economic analysis of the operation should have provided more details about the projected benefits and assumptions made. Regarding the monitoring plan, the product costs presented should be reviewed to make them consistent with the products reported in the results matrix. The evaluation plan is based on an ex-post cost benefit analysis and no project additionality is presented. Risks identified are sound and include mitigation measures and metrics for monitoring.

RESULTS MATRIX

Project objective	The program's general objective is to preserve the road assets in the Primary Road Network (RVP) and reduce the accident rate on those roads. The specific objectives are to: (i) lower transportation costs (vehicle operating costs and travel time) for the RVP segments targeted by the program; and (ii) increase private financing of road infrastructure.

Indicators	Baseline	Target	Means of verification
Impact: Preservation of RVP road assets			
Weighted asset value of the road network under the jurisdiction of the Dirección Nacional de Vialidad [National Highway Department] (DNV)[1]	In process	100%	Informe Evolución del Patrimonio Vial [Road Asset Value Trend Report], published annually by the DNV
Impact: Lower accident rate on the RVP			
Rate of accidents involving victims (fatalities and injuries) on the country's international corridors[2] (accidents per million vehicles)	31.4	27.2	Official accident statistics from the National Road Safety Unit (UNASEV)

[1] The weighted asset value of the road network is defined as the ratio of the current road asset value to the average road asset value. The current asset value is the economic cost of building the existing road infrastructure in its current condition. Also defined are the minimum asset value, which is the value of the infrastructure in its worst acceptable condition; maximum asset value, which is the value of totally new infrastructure; and the average asset value of the road network, which is the average of the minimum and maximum values of road system assets. Studies by the Economic Commission for Latin America and the Caribbean (ECLAC) found that the total costs of transportation (cost of infrastructure maintenance plus vehicle operating costs) reach their lowest level when the current value is slightly above the average value. The program aims to keep this value above 100% for all roads under the DNV's jurisdiction, as an indicator of a successful road maintenance policy.

[2] Uruguay has approximately 40,000 kilometers of roads. The DNV, under the Ministry of Transportation and Public Works, has jurisdiction over the 8,800 kilometers that connect the departments' capitals and each department's second-largest cities, border crossings, and the main ports; more than 3,900 kilometers are categorized as RVP. The RVP routes connecting Montevideo with the border crossings with Argentina and Brazil are called international corridors.

<table>
<tr><th colspan="4">Outcome: Lower transportation costs</th></tr>
<tr><th>Outcome indicators</th><th>Baseline</th><th>Target</th><th>Means of verification</th></tr>
<tr><td>Vehicle operating costs (VOC) on segments targeted by the program (constant U.S. dollars/vehicle-kilometer)[3]</td><td><table><tr><th colspan="2">Vehicle type</th><th>VOC (US$/ veh-km)</th></tr><tr><td colspan="2">Car</td><td>0.26</td></tr><tr><td colspan="2">Bus</td><td>0.82</td></tr><tr><td colspan="2">Utility vehicle</td><td>0.21</td></tr><tr><td rowspan="3">Truck</td><td>Medium</td><td>0.75</td></tr><tr><td>Heavy</td><td>1.25</td></tr><tr><td>Articulated</td><td>1.62</td></tr><tr><td colspan="2">Average</td><td>0.81</td></tr></table></td><td><table><tr><th colspan="2">Vehicle type</th><th>VOC (US$/ veh-km)</th></tr><tr><td colspan="2">Car</td><td>0.26</td></tr><tr><td colspan="2">Bus</td><td>0.82</td></tr><tr><td colspan="2">Utility vehicle</td><td>0.21</td></tr><tr><td rowspan="3">Truck</td><td>Medium</td><td>0.75</td></tr><tr><td>Heavy</td><td>1.25</td></tr><tr><td>Articulated</td><td>1.62</td></tr><tr><td colspan="2">Average</td><td>0.81</td></tr></table></td><td>Ex post economic evaluation report to be prepared by the executing agency using the Highway Development and Management model (HDM-4)

Corporación Vial de Uruguay (CVU) - DNV</td></tr>
<tr><td>Travel time on segments targeted by the program (minutes/kilometer)[3]</td><td>In process[4]</td><td>The target for travel time is for the value to be less than or equal to the baseline value.</td><td>Ex post economic evaluation report to be prepared by the executing agency using HDM-4

CVU - DNV</td></tr>
<tr><th colspan="4">Outcome: Increased private financing of road infrastructure</th></tr>
<tr><td>Privately financed road infrastructure investments (in US$ millions)</td><td>0</td><td>500</td><td>Value of the bids from the firms awarded the PPP contracts plus the value of the CVU-structured instruments issued in the stock market</td></tr>
</table>

[3] The program has a representative sample of 69%, consisting of Route 2 (143 kilometers) from Florencio Sánchez (182k400) to the international bridge (308k500), with the addition of the southern access road to Fray Bentos and the feeders connecting to the port, at an estimated cost of US$23.1 million; and Route 3 (173.8 kilometers) from 67k300 to 243k000, at an estimated cost of US$39.3 million. The baseline and targets refer to the planned projects on those routes. As the feasibility studies for the projects not included in the program's representative sample are completed, the weighted average values corresponding to each vehicle type and category of planned intervention will be updated.

[4] The indicator will be completed prior to program approval, based on the feasibility studies for the projects belonging to the representative sample, and will be updated with the values for the projects not in the sample.

Output Indicators							
Component 1: Rehabilitation and maintenance of the RVP							
Output indicators	**Base 2015**	**2016**	**2017**	**2018**	**2019**	**Target**	**Means of verification**
Kilometers of interurban roads rehabilitated and/or maintained[5] by the program[6]		100	200	300	400	400[7]	Field supervision CVU - DNV Six-monthly status report and technical inspection visits by the IDB
Program status reports submitted to the Bank's satisfaction	0	2	2	2	2	8	Six-monthly program status reports submitted to the Bank's satisfaction
Report on the methodology for technical, economic, and environmental evaluation of technological alternatives to repaving			1			1	Evaluation methodology report approved by CVU and the IDB
Road safety audits for the corridors included in the program		2	2			4	Audit reports sent by CVU to the IDB

[5] Rehabilitation works consist of restoring the structure and surface regularity of existing pavement. Generally, these works are confined to the right-of-way and are essentially carried out on the existing structure, without planimetric/altimetric modifications. Maintenance involves minor tasks aimed at preserving the infrastructure's serviceability and maximizing its longevity.

[6] This indicator is equivalent to the number of kilometers of roads built or improved. In the program's representative sample projects, 75% of the targeted kilometers are to be rehabilitated and later maintained, while 25% are at a standard high enough that they can be maintained without the need for prior rehabilitation; the rehabilitation target is therefore 75% of the proposed indicator value. The kilometers maintained include those previously rehabilitated.

[7] Calculated based on the rehabilitation percentages and on the costs for Routes 2 and 3. As the feasibility studies for the projects not included in the program's representative sample are completed, the baseline and target information will need to be adjusted.

Output indicators							
Component 2: Technical and financial support for: (i) design, assessment, and structuring of road projects to be financed through PPPs; and (ii) structuring of other financial instruments							
Indicators	**Base**	**2015**	**2016**	**2017**	**2018**	**Target**	**Means of verification**
Number of studies for the design, assessment, and structuring of road projects to be contracted out as PPPs	0	1	2	2		5	Studies and contracts sent by the CND to the IDB
Number of capital market access operations structured by CVU (issue of negotiable or similar obligations)	0	1				1	Website of the Bolsa Electrónica de Valores de Montevideo [Montevideo Electronic Stock Exchange]

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Uruguay
Project number:	UR-L1107
Name:	CVU Program II
Executing agency:	Corporación Vial del Uruguay S.A. (CVU) for Component 1 and Corporación Nacional para el Desarrollo [National Corporation for Development] (CND) for Component 2
Prepared by:	David Salazar and Nadia Rauschert (FMP/CUR)

I. EXECUTIVE SUMMARY

1.1 This operation is a multiple works investment program for US$89.5 million, of which the IDB will finance up to US$76 million. The borrower will be the CND, which is also the executing agency for one of the components (Component 2, on studies and structuring of public-private partnership (PPP) projects), with CVU serving as the executing agency for Component 1 (rehabilitation and maintenance works on the Primary Road Network (RVP)). The Eastern Republic of Uruguay will be the guarantor of the operation.

1.2 The fiduciary agreements and requirements for this program are based on CVU's record as the executing agency for loan 2041/OC-UR, execution of which concluded in September 2013; the CND's experience as executing agency for MIF operations (ATN/ME-10148-UR, closed; ATN/ME-12386-UR, ATN/OC-13625-UR, and loan SP/OC-12-21-UR, now in execution); and an institutional assessment of both executing agencies, performed in July 2015 using the Institutional Capacity Assessment System (ICAS).

II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

2.1 The fiduciary context of the executing agencies is regarded as very good, with a low level of risk. The ICAS assessment yielded very satisfactory results.

2.2 As reflected in the ICAS report, management of the CND and of CVU is built on an organizational system that has worked internally to reform the process-based management system, supported by an integrated management manual that has been certified based on quality standards.

2.3 The following country systems or their equivalents would be used:

a. **Budget**: CVU has two funding sources: subsidies from the Ministry of Transportation and Public Works (MTOP) and the collection of tolls. The local contribution for this operation will be in the form of payment of the value-added tax (VAT) on the works, made using credit certificates.

b. **Treasury**: A special account for managing program resources will be set up with the Central Bank of Uruguay, under the name of the CND, which will centralize the operation's financial execution.

c. **Accounting and financial reports**: The CND uses the GIA accounting system, and CVU uses the SAP integrated system. Each executing agency will keep accounting records of expenditures for the component it executes; the CND will be responsible for consolidating the information and sending it to the Bank.

d. **Internal control:** The CND has an internal audit unit consisting of a chief and two assistants.

e. **External control**: Program financial statements will be subject to external audits by a private firm—the same one that audits the CND. The CND is currently audited by CPA Ferrere, which has Tier II eligibility on the list of eligible auditors kept by the Bank's Country Office in Uruguay.

III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES

3.1 As the program is regarded as low risk in fiduciary terms, it will require minimal monitoring actions to strengthen the control environment and ensure efficient, effective resource administration. The area requiring the most fiduciary attention is monitoring of coordination of activities between the CND and CVU for expenditure reporting and submittal of audited program financial statements, given that both agencies have technical execution roles.

3.2 Similarly, given that the two agencies will be executing the program and that the mechanism for payment of expenditures incurred by them involves authorization from the MTOP, a lower percentage is proposed for justification of expenditures, so as to minimize the risk of slowing implementation of either of the components. The percentage suggested by the borrower is 70%.

IV. CONSIDERATIONS FOR THE SPECIAL CONTRACT CONDITIONS

4.1 **Exchange rate**. For accounting in U.S. dollars, the exchange rate on the date that the U.S. dollars disbursed by the Bank are converted into pesos will be used. Similarly, for local counterpart expenditures and reimbursement of payments, the exchange rate will be the rate on the date of the respective payment.

4.2 **Financial statement audits.** Financial statements will be submitted by 30 April of each year for the previous fiscal year, throughout the execution period. They must be audited by a Bank-eligible private firm, which may be the same firm that audits the institution.

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

5.1 The procurement policies applicable to this loan are the "Policies for the Procurement of Works and Goods Financed by the IDB" (document GN-2349-9) and the "Policies for Selection and Contracting of Consultants Financed by the IDB" (document GN-2350-9). The works comprising the sample are described in detail in the procurement plan.

A. Procurement execution

5.2 Before conducting any procurement process, the executing agency will submit the procurement plan to the Bank for prior approval. The plan must indicate: (i) the contracts for goods and services necessary to conduct the program; (ii) the proposed methods for procurement of goods and selection of consultants; and (iii) the procedures applied by the Bank for procurement supervision. The borrower will update the procurement plan at least every 12 months, according to program needs. Any proposed change to the procurement plan must be submitted to the Bank for approval.

B. Applicable procurement execution provisions

5.3 **Procurement of works, goods, and nonconsulting services.**[1] Based on the nature of the planned works, which will be performed under repair and maintenance contracts, CVU has developed standard bidding documents appropriate to this type of contracting and has incorporated the requirements of financiers, including the Bank. International competitive bidding (ICB) and national competitive bidding (NCB) processes will be conducted using these documents, subject to the Bank's prior review and approval.

5.4 **Consulting firms.** Consulting firms will be selected and contracted in accordance with IDB policies. Calls for proposals involving international publicity (those in excess of US$200,000) will be subject to ex ante review.

5.5 **Selection of individual consultants.** According to Bank policy document GN-2350-9, section V, the use of short lists or the standard request for proposals is not required.

VI. ADVANCE PROCUREMENT / RETROACTIVE FINANCING

6.1 The two works projects in the sample will use advance procurement. In addition, the consulting firm contracts for Component 2 were awarded in advance and will be recognized for financing under this operation. The Bank reviewed all three processes, and their procedures are consistent with the principles of the applicable policies.

Table 1. Threshold Amounts for Uruguay (US$000s)

Works			Goods[2]			Consulting services	
ICB	NCB	Shopping	ICB	NCB	Shopping	International publicity	Short list 100% national
≥ 3,000	250-3,000	≤ 250	≥250	50-250	≤ 50[3]	> 200	≤ 200

6.2 **Main procurements**. The procurements for the first 18 months are reflected in the procurement plan (see electronic links). Although the identified contracts are not technically complex, the provisions agreed upon with CVU will be followed (see paragraph 5.3).

[1] Policies for the Procurement of Works and Goods Financed by the IDB (document GN-2349-9), paragraph 1.1. Nonconsulting services are treated as goods.

[2] Includes nonconsulting services.

[3] For technically simple goods, shopping may be used up to the NCB threshold amount.

6.3 To contract out the Route 2 works (estimated at US$23.1 million), which are part of the program's representative sample, the executing agency has moved up the bidding process, and the contracts are expected to be awarded prior to the Bank's approval of the loan. Bidding procedures compatible with Bank policies are being used in this process. The process of commissioning the technical studies for the PPP structuring component, for an estimated US$1.2 million, has also begun.

6.4 The Bank may retroactively finance and charge against the loan proceeds up to US$15.2 million (20% of the loan amount) in eligible expenditures incurred by the borrower prior to the loan approval date for rehabilitation and maintenance works and technical, economic, and financial studies, provided that requirements substantially similar to those of the loan contract have been met. These expenditures must have been made on or after 10 July 2015, but in no case will expenditures incurred more than 18 months prior to the loan approval date be included.

VII. PROCUREMENT SUPERVISION

7.1 The review method is ex post, but this may be altered by agreement, with any such changes being reflected in the procurement plan. Procurements involving ICB and consulting services in excess of US$200,000 will be subject to ex ante review.

7.2 The ex post review reports will not involve any physical inspection visits,[4] given the executing agency's low risk and the nature of activities.

7.3 Component 2 envisages execution using operational resources. These activities will not need to be itemized in the procurement plan.

VIII. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL MANAGEMENT

A. Programming and budget

8.1 Where the VAT on works is paid with credit certificates, it will be verified that the executing agency has obtained the respective authorization. Otherwise, the allocation of budget resources to the CND will be revised to cover the local counterpart contribution for this operation.

B. Accounting and information systems

8.2 Program financial statements are to be issued in accordance with International Financial Reporting Standards accepted by the Bank in its financial management policy, and are to be audited annually by a Bank-eligible private firm.

C. Disbursements and cash flow

8.3 For the use of funds, the CND will open a special account in the program's name with the Central Bank of Uruguay. The CND will transfer to CVU the amount it needs for its six-monthly financial programming and submit disbursement requests for the resources needed by both agencies.

[4] The inspection will verify the existence of procurements, leaving verification of quality and compliance with specifications to the sector specialist.

8.4 To minimize the risk of slowing implementation of either of the components (executed by CVU and the CND), and considering the MTOP authorization process involved for the results of PPP projects, it was decided to require justification of 70% of funds advanced.

8.5 With regard to Component 2's structuring and assessment of PPP projects requested of the CND by the MTOP, it was agreed that the eligibility and validity of associated expenditures would be determined via the framework and special agreements between the two entities, which set the value of the corresponding outputs. Approval of those outputs by the various parties involved will be required.

D. Internal controls and external audits

8.6 Reports on the external program audit and review of processes and disbursement requests must be submitted for each fiscal year, by 30 April of the following year, for the duration of the disbursement period. International audit standards and the guidelines issued by the Bank in this regard should be taken into consideration.

IX. FINANCIAL SUPERVISION PLAN

9.1 The supervision plan will include the following:

a. A financial visit is planned for the first year of implementation, with points of emphasis including looking at processes and monitoring coordination between the CND and CVU for financial planning and accountability purposes.

b. Disbursement requests will be subject to ex post review and verified by the external auditor in conjunction with the submittal of its annual reports.