

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

URUGUAY

MONTEVIDEO URBAN TRANSPORTATION PROGRAM

(UR-L1025)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Esteban Diez-Roux (INE/TSP), Project Team Leader; Felipe Targa, Rosana Brandao, and Giovanna Mahfouz (INE/TSP); Andrés Pereyra (TSP/CUR); and Javier Cayo (LEG/SGO).

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ELECTRONIC LINKS AND REFERENCES	
REQUIRED	
1.	Annual work plan: http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1619974
2.	Monitoring and evaluation arrangements: http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645648
3.	Environmental and Social Management Report: http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1619813
4.	Procurement plan: http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1621967
5.	Safeguard Policy Filter (PSF) and Safeguard Screening Form (SSF): http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=167709
OPTIONAL	
1.	Analysis of transportation supply and demand in Montevideo (2007) Supply characteristics http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645503 Demand analysis http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645507 Diagnostic assessment of current situation http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645510
2.	Technical options and design Discussion and proposed technological alternatives by corridor http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645527 Macro simulation of proposed alternatives http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645531 Development of freight mobility proposals http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645538 Development of traffic and nonmotorized transportation proposals http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645542 Fare integration proposal http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645548
3.	Evaluation and selection of alternatives http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645559
4.	Socioeconomic analysis and financial evaluation, overall and by route http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645624
5.	Legal recommendations for implementation and proposed institutional organization http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645621
6.	Implementation strategy guidelines http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1645628

ABBREVIATIONS

DNV	Dirección Nacional de Vialidad [National Road Administration]
GDP	gross domestic product
IMM	Municipality of Montevideo
LIBOR	London Interbank Offered Rate
ppk	passengers per kilometer
STM	Sistema de Transporte Metropolitano [Metropolitan Transportation System]
UMPEU	Urban Mobility Plan Executing Unit

PROJECT SUMMARY

URUGUAY MONTEVIDEO URBAN TRANSPORTATION PROGRAM (UR-L1025)

Financial Terms and Conditions ¹					
Borrower: Eastern Republic of Uruguay			Amortization period:	25 years	
Executing agency: Municipality of Montevideo (IMM)			Grace period:	4 years	
Source	Amount	%	Disbursement period:	4 years	
IDB (Ordinary Capital)	US\$80 million	80	Interest rate:	Variable/LIBOR	
Local	US\$20 million	20	Inspection and supervision fee:	*	
Other/cofinancing	-	0	Credit fee:	*	
Total	US\$100 million	100	Currency:	U.S. dollars from the Single Currency Facility	
Project at a Glance					
Objective/description:					
The purpose of the program is to help improve mobility conditions and make the Montevideo urban transportation system more efficient by upgrading the mass transit infrastructure and streamlining services, providing citizens with an accessible, safe, efficient, and sustainable transportation system.					
To achieve the proposed objectives, the program will finance infrastructure works and management measures aimed at implementing a modern public transportation system. In particular, the program will restructure and streamline mass transit routes and services; introduce prepaid fare and electronic ticketing systems; implement technological fleet management and operating control systems; build and adapt priority infrastructure for mass transit (enhancing corridors with exclusive and preferential bus lanes and terminal stations); modernize the traffic light network; adapt and expand the bicycle route network; and overhaul the road network in the major public transportation corridors.					
Special contractual clauses:					
As a condition precedent to the first disbursement, evidence must be submitted of the signing of a subsidiary agreement between the borrower and the executing agency on the terms described in paragraph 2.1					
Special condition for program execution:					
Each year, the executing agency will submit to the Bank the accountability report it presents to the Departmental Council, which addresses its institutional and financial condition.					
Revolving fund: A revolving fund of up to 10% of the loan amount will be established. This percentage is justified by the high price of some of the works contracts.					
Exceptions to Bank policies:					
None.					
Project consistent with country strategy:		Yes [X]	No []		
Project qualifies as:		SEQ []	PTI []	Sector []	Geographic [] Headcount []

* 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 provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, strategy, and rationale

- 1.1 Approximately 53% of Uruguay's total population lives in the Montevideo metropolitan area. According to the 2004 census, 1.3 million people live in Montevideo¹ and 1.7 million² live in the greater metropolitan area. Although Montevideo covers an area of 529 km², most of the population (96%) resides in the urban portion, which accounts for 37% of that area. Montevideo generates approximately 58% of the nation's gross domestic product.
- 1.2 **Transportation demand.** According to the latest origin-destination survey (2007), 3.4 million trips are made in Montevideo daily, of which 46.1% are made by bus, 26.6% on foot, 17.3% by private car, and 3.3% by bicycle.³ Work is the main reason (44.5%) for these trips (without taking into account the return home), followed by school (18.3%). Leisure activities represent 10.2% of daily trips in the city, while health reasons account for 4.3%.
- 1.3 **Public transportation.** Mass transit service in Montevideo is provided by five operating companies,⁴ with a combined fleet of 1,489 vehicles and approximately 6,300 employees. This fleet is distributed across 140 routes, where buses run without any type of priority or preference over other traffic. Of the five operators, CUTCSA and COMESA are corporations in which approximately 50% of workers are shareholders, while COETC, UCOT, and RAINCOOP are cooperatives of which approximately 2% of workers are employees.⁵
- 1.4 The current mass transit fare system consists of a flat fare of 13.50 pesos (US\$0.69). In 60% of the territory there is a substantial, 50% discount applicable to the outlying areas of the department, while on suburban routes the fare varies according to length of travel. In addition, there are subsidized fares (students and senior citizens), with discounts ranging between 70%, 50%, and 30% of the normal fare, as well as discount programs and transfer fares. According to the annual record of ticket sales, passenger demand dropped by more than one third during the

¹ Uruguay is divided politically into 19 departments, one of which is Montevideo. The department of Montevideo and the Municipality of Montevideo correspond to the same political division.

² The Montevideo metropolitan area includes population from the departments of Canelones and San José.

³ In the center-north sectors of the city (e.g., Villa Española, Maroñas, Jardines del Hipódromo, Curva de Maroñas, Barrio Borro, and Piedras Blancas), most trips are made on foot (as many as 69.5% in the Maroñas sector). In the western part of the city (e.g., Casabo, Cerro Norte, Paso de la Arena, La Teja, and Cerro), as well as in the city center and the Old City, over 58% of trips are made using public transportation.

⁴ The main company is CUTCSA, with 1,034 vehicles (65% of the Montevideo fleet (963) and 61.8% of demand). The other four operators are associated under *Transportistas Unidos de Pasajeros de Capital e Interior* (TUPCI).

⁵ Additionally, there are companies operating suburban services between the departments of Canelones and San José and Montevideo: SOLFI, COETC INTER (formerly CODET), UCOT-INTER (formerly CUTU), CUTCSA-INTER, CASANOVA, CITA, TALA-PANDO-MVD, SAN ANTONIO, CITA, and RAINCOOP.

10-year period from 1994 to 2004, and then rebounded over the last four years at an average annual rate of 7%. Nonetheless, system productivity is relatively low, with passenger-per-kilometer (ppk) index levels averaging less than 2 for practically all companies.⁶

- 1.5 **Problem to be addressed.** Montevideo is a city with idiosyncratic characteristics arising from urban development and shifting mobility patterns attributable to changes in economic, social, and urban dynamics in recent years. These changes, such as the 2002 economic crisis, have affected urban mobility patterns from the standpoint of both modal and geographic distribution of demand. In terms of urban development, the population has migrated from central to outlying areas, with the latter becoming new trip generating centers.⁷ In addition, Montevideo has expanded as a city without growing in terms of population.
- 1.6 The city's urban development dynamics, which are linked to changes in demand for transportation, contrast with available public transportation, which has not evolved in response to these structural changes. The public transportation route system has remained virtually unchanged for several years, with the exception of marginal adjustments. Certain routes continue to operate despite significantly lower demand, while in some outlying areas, where urban development is recent, service is inadequate in terms of access, coverage, and/or frequency.
- 1.7 In addition to the need to adapt public transportation services in light of recent changes in urban dynamics, other factors have contributed to a decrease in the system's efficiency. In particular, as in the case of most cities around the world, there is a strong upward trend in private vehicle ownership and use, linked to higher average income and lower real vehicle prices. This trend, along with the lack of a road infrastructure that gives priority to mass transit, has made public transportation service in Montevideo less efficient and less productive, as buses operate at low commercial speed, especially in central corridors where they mix with the rest of traffic.
- 1.8 **The strategy for the sector.** The Municipality of Montevideo (IMM) has been evaluating various urban transportation models recently adopted in some Latin

⁶ The ppk index measures the productivity of public transportation services or routes and determines their financial viability for operators, depending on the cost structure for the vehicle and the company in general.

⁷ In areas such as the city center, Aguada, and Cerdón, homes have been abandoned due to rent increases, resulting in new settlements in more outlying areas (e.g. northern portion of Av. General Flores: Cerrito, Casavalle, and Piedras Blancas). Meanwhile, more affluent segments of the population have been moving toward the coastal areas: from Punta Carretas to Carrasco, Ciudad de la Costa, Malvín, and Buceo.

American cities.⁸ Based on the outcomes and success stories in these cities, it has been analyzing and developing an appropriate model for Montevideo's particular social, economic, and urban characteristics. The IMM strategy recognizes the need to improve and revitalize the metropolitan area's urban transportation system, taking note of the system's important role in fostering social inclusion and access to economic development opportunities for the low-income population. The strategy's design has been consistent with the general guidelines set out in Montevideo's land-use plan (*Plan de Ordenamiento Territorial*).

- 1.9 In this context, the IMM assembled a set of conceptual alternatives aimed at streamlining current offerings according to service quality, productivity, profitability, and coverage criteria, and these have developed into a proposal for the "Metropolitan Transportation System" (STM). The service restructuring process seeks to create greater overall system efficiency and prevent deterioration in travel conditions for users. In addition, the STM strategy calls for providing priority infrastructure in high-demand corridors and specialized technology, as well as formulating a management and operating plan that makes it possible to provide citizens with an accessible, safe, efficient public transportation system.
- 1.10 The **Bank country strategy with Uruguay** for 2005-2009 (document GN-2398-2) provides for technical and financial IDB support in three strategic areas: (i) improving public management and sustaining fiscal soundness; (ii) strengthening competitiveness and Uruguay's international positioning to sustain growth; and (iii) poverty reduction and social inclusion as a pillar of sustainable growth. In the strategic area of poverty reduction and social inclusion, the strategy assigns priority to public transportation investment with a view to improving living conditions in cities.⁹ The proposed program is consistent with the Bank's country strategy with Uruguay insofar as it will help improve access and urban mobility, particularly for lower-income inhabitants who depend on mass transit on a daily basis to travel to work and school as well as to social service and recreational centers.
- 1.11 **Program rationale.** The IMM's strategy recognizes the need to improve and revitalize the public transportation system in Montevideo, and this system's importance for people's mobility and access to economic and social development

⁸ The trend is to redirect urban transportation policies toward alternative models based on strategies to promote mass transit and nonmotorized transportation, combined with demand management and zoning measures. Some of these models are based on developing a Bus Rapid Transit (BRT) system, which has been highly successful and is being implemented in several Latin American cities. Cities such as Bogotá in Colombia and Curitiba in Brazil have developed systems that include: (i) exclusive or preferential corridors for high-capacity buses; (ii) trunk and feeder routes in structured and integrated public transportation networks, incorporating transfer terminals and prepaid fare and electronic ticket systems; (iii) a new compensation and system management scheme; (iv) expansion and upgrading of bicycle route networks and pedestrian infrastructure; (v) coordination of land-use management with the transportation system; and (iv) improvements in traffic administration and management.

⁹ In particular, the Bank's country strategy with Uruguay states that the Bank will support Uruguay through "assistance for urban transportation upgrades to extend the reach of transit systems and, particularly, make it easier for Uruguayans of modest means to access health and education services and the labor market."

opportunities. In this context, the STM constitutes a viable alternative for ameliorating the sector's problems, by reducing travel times, making the service more cost-effective, and helping to improve air quality. An efficient transportation system is vital for the city to operate and be competitive, and the STM seeks to ensure efficient mobility by giving priority to more socially equitable and environmentally sustainable modes of transportation. It also recognizes the importance of urban transportation for the mobility and productivity of Montevideo, where much of the nation's GDP is generated, this being a key to improving the global competitiveness of the Uruguayan economy.

- 1.12 The Bank has been actively involved in urban transportation planning in Montevideo and has supported institution-strengthening for the sector. In 1992, the Bank financed the Traffic and Transportation Plan for Montevideo. To prepare and frame the present program, the Bank approved US\$720,000 in nonreimbursable technical-cooperation funding (ATN/JC-9989-UR) from the Japanese Trust Fund for Consultancy Services. These technical-cooperation funds were used to contract technical assistance and training services on urban transportation planning models, including travel demand models and traffic microsimulation models. Executive project designs (detailed engineering designs) and financial, economic, socioenvironmental, institutional, and legal feasibility analyses were also prepared for the alternatives under consideration. The main outputs of the technical-cooperation operation may be found in the electronic links and references.

B. Objective and components

- 1.13 The **purpose** of the program is to help improve mobility conditions and make Montevideo's urban transportation system more efficient by upgrading mass transit infrastructure and streamlining services, providing citizens with an accessible, safe, efficient, and sustainable transportation system.
- 1.14 To achieve the proposed objectives, the program will finance infrastructure works and management measures aimed at implementing a modern transportation system. In particular, the program will restructure and streamline mass transit routes and services; introduce prepaid fare and electronic ticketing systems; implement technological fleet management and operating control systems; build and adapt priority infrastructure for mass transit (enhancing corridors with exclusive and preferential bus lanes and terminal stations); modernize the traffic light network; adapt and expand the bicycle route network; and overhaul the road network in the major public transportation corridors.
- 1.15 The operation is structured as an investment program and is divided into the following **components**:

1. Component I: Engineering and administration (US\$4 million)

- 1.16 This component includes procurement by the IMM of technological and computer equipment for the STM; public awareness and information campaigns for STM implementation; and ongoing consultations and surveys during the system

implementation and evaluation stage. It will also include monitoring of the program's environmental and social management plan and feasibility studies and designs for future STM corridors and terminals. In addition, this component includes the program's management and administrative operating costs (program executing unit support and incremental costs), and consulting services for support and technical assistance, supervision, and audits.

- 1.17 This component may also include activities related to implementation of an operational and environmental management system for the STM, as well as activities aimed at reinforcing the IMM's technical and institutional capabilities in the areas of strategic planning and management of Montevideo's urban transportation system.

2. Component II: Investments for improving public transportation (US\$86 million)

- 1.18 This component will finance works and management measures aimed at improving the level of service and efficiency of the mass transit and nonmotorized transportation system, as well as paving the way for implementation of the STM. The component includes infrastructure projects for enhancing two corridors by introducing exclusive and preferential mass transit lanes (Av. Agraciada/ Av. Garzón and Av. General Flores) and three terminal stations (Central, Colón, and Hipódromo), as well as supplementary infrastructure works in priority mass transit corridors, including upgrading of complementary roads and interchanges. It will also finance land purchases and any necessary expropriations in the areas of influence of these terminals/corridors, as well as investments to support the modernization and synchronization of traffic lights in the main STM corridors.

C. Costs and financing

- 1.19 The total program cost is US\$100 million, of which US\$80 million (80%) will be financed by the Bank, while the remaining US\$20 million (20%) will come from the IMM budget as the local counterpart contribution. A relatively high amount is included for contingencies (US\$10 million), in light of the variations seen in recent road works contracts in Uruguay. The program's financing structure, with estimated costs by component, is presented in the following table:

INVESTMENT CATEGORY		Financing source (US\$ thousands)			
		IDB	IMM	Total	%
1	Engineering and administration	1,190	2,810	4,000	4.0%
1.1	Technology and computer equipment	0	200	200	0.2%
1.2	Public awareness/information campaign	0	500	500	0.5%
1.3	Ongoing consultations and surveys	615	0	615	0.6%
1.4	Environmental and social management plan monitoring	400	0	400	0.4%
1.5	Studies and designs for future corridors and terminals	0	610	610	0.6%
1.6	Program executing unit	0	1,500	1,500	1.5%
1.7	Financial auditing	175		175	0.2%
2	Investments for improving public transportation	78,810	7,190	86,000	86.0%
2.1	Exclusive Agraciada - Garzón corridor (Agraciada sections)	7,670	0	7,670	7.7%
2.2	Exclusive Agraciada - Garzón corridor (Garzón section)	22,348	0	22,348	22.3%
2.3	Exclusive General Flores corridor	11,078	0	11,078	11.1%
2.4	Marked alternative corridors	1,493	307	1,800	1.8%
2.5	Traffic light synchronization	1,000	0	1,000	1.0%
2.6	Supplementary roads	13,701	6,883	20,584	20.6%
2.7	Land	5,000	0	5,000	5.0%
2.8	Terminals and interchanges	16,520	0	16,520	16.5%
3	Contingencies and cost escalation		10,000	10,000	10.0%
	TOTAL	80,000	20,000	100,000	100%
	Percentage	80%	20%		

D. Results framework and key indicators

- 1.20 The program's outcomes will involve improved mobility conditions and efficiency in Montevideo's urban transportation system resulting from the upgrading of mass transit infrastructure and the streamlining of its services. In addition, the program is intended to provide the people of Montevideo with an accessible, safe, efficient, sustainable transportation system.
- 1.21 Specifically, the infrastructure projects to enhance corridors by introducing exclusive/preferential lanes and upgrade supplementary roads and interchanges, along with the modernization of the traffic light network, are expected to help improve mobility for public transportation users, as reflected in an increase in average travel speeds in the main STM corridors. In addition, restructuring and streamlining the public transportation route and service system, in conjunction with implementing technological ticketing and fleet management/operating control systems, should help improve the system's efficiency, as reflected in greater service productivity (passengers per kilometer).

- 1.22 The program is also expected to help improve accident rate indicators for the main STM corridors and reduce pollutant emissions in the city, although these effects would not be directly attributable to the program's components.

Key Indicators	Measurement Timeframe	Reason for Selection
Increase in average commercial speed for mass transit services in the main STM corridors.	Before works begin (baseline) and after infrastructure is upgraded and services are streamlined	This indicator is associated with user travel time in the system and is easy to measure.
Increase in average passengers per kilometer for all mass transit routes and services.	Before works begin (baseline) and after infrastructure is upgraded and services are streamlined	This indicator reflects service productivity and overall system efficiency in general.
Reduction in the number of traffic accidents in the main STM corridors	During program execution (part of IMM accident rate statistics)	This indicator reflects a positive externality not directly attributable to the program, and is part of the IMM monitoring system.
Reduction in pollutant emissions in the city	During program execution (part of IMM air quality monitoring system)	This indicator reflects a positive externality not directly attributable to the program, and is part of the IMM monitoring system.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financial instruments

- 2.1 The borrower will be the Eastern Republic of Uruguay. It will be the Municipality of Montevideo (IMM), however, that will be in charge of executing the program as well as contributing the local counterpart funding and meeting other contractual obligations. The loan will be in dollars from the Single Currency Facility of the Ordinary Capital. A subsidiary agreement, to be signed between the borrower and the IMM, will set forth the following, among other terms: (i) the terms and conditions under which the borrower will transfer the loan proceeds to the IMM; and (ii) the IMM's responsibilities as program executing agency, particularly its commitment to use the program funds, contribute the counterpart funds, and fulfill the pertinent obligations provided in the loan contract. The signing of the subsidiary agreement by the parties will be a **condition precedent to the first disbursement of the loan proceeds**.
- 2.2 The operation is structured as an investment program, with a total estimated cost of US\$100 million. Of the total, 80% (US\$80 million) will be financed by the Bank with Ordinary Capital resources, while the remaining 20% (US\$20 million) will be contributed by the local counterpart. The execution period is four years as of the

effective date of the loan contract, with a loan disbursement schedule as summarized below:

Year	2008	2009	2010	2011	Total IDB
Amount (US\$000)	6,100	20,100	45,500	8,300	80,000
Percentage	8%	25%	57%	10%	100%

B. Environmental and social risks

- 2.3 This program has been classified as a Category B operation. The IMM has prepared an environmental and social analysis for the program; the program interventions will not generate significant adverse social or environmental impacts, as most of the road corridors to be worked on are in operation and are located in established urban areas. In general, it may be said that any negative impacts will be localized, reversible, temporary, and linked to activities inherent to road works. Consequently, these impacts can be easily minimized by adopting preventive measures and proper procedures.
- 2.4 The planned infrastructure works for the Av. Agraciada, Av. Garzón, and Av. General Flores corridors are technically straightforward, and most focus on the median strip, which will be modified to create exclusive mass transit lanes. Additionally, roadwork is planned in order to widen certain roads and enhance the corridor from an urban planning standpoint.
- 2.5 The expropriations required for the road works are minor and isolated, involving eight middle-class homes located on one of the streets in the Av. Garzón corridor, which would be expropriated at market prices pursuant to the guidelines set forth in the National Expropriation Law. No cases were identified in which low-income populations would be affected, but should they arise, the properties in question would be expropriated following the Bank's Resettlement Policy guidelines (OP-710). The IMM has extensive prior experience in this area, acquired in executing four Bank-financed loans for basic sanitation.
- 2.6 The works associated with the three terminal stations planned under the program have been evaluated on the basis of site-specific environmental feasibility assessments (*Evaluaciones de Viabilidad Ambiental de Localización*) and environmental requirements provided under local regulations, with satisfactory results. The land identified for construction of the terminals consists of vacant lots. One lot, where the Colón Terminal will operate, has already been transferred to the IMM by the Ministry of Transportation and Public Works (MTO) pursuant to an agreement recently signed between the two institutions. A second lot, owned by Banco de Previsión Social (BPS), will become IMM property pursuant to a land swap arranged by the IMM with BPS approval. A third lot, set aside for the Central station, is private property and will therefore require expropriation. Two of the properties bordering the area set aside for the Hipódromo Terminal have been designated historical heritage sites under Law 17.006/98, having been the original

site of the Maroñas horse racing track. The IMM has approached the National Historical Heritage Commission, requesting that heritage status be removed so that these properties may be used in the future in the event of an expansion of the terminal.

- 2.7 Other potential impacts associated with the planned road projects include: nuisances and risks relating to vehicle and pedestrian traffic in the work areas, as well as impacts on residents and adjacent buildings; and risks of environmental degradation in quarries and areas where materials are extracted, dumped, or transported. These are well-known impacts, however, and should be mitigated with proper environmental management by the selected contractors, who will be required to follow the guidelines given by the National Road Administration (DNV) in its Environmental Manual for Road Works and Activities, which will be included in the bidding documents for the program works, as part of the IMM's improved environmental management.
- 2.8 Finally, it is worth noting that the program will lead to a series of social and environmental benefits, including: (i) less air and noise pollution as a result of improved traffic flow and reduced vehicle congestion in high-demand corridors; (ii) better quality of life for users, thanks to reduced travel times and improved access to employment, health, education, and recreational centers; and (iii) fewer fatalities and injuries caused by traffic accidents as a result of improved traffic conditions. More detailed information can be found in the attached environmental and social management plan.

C. Fiduciary risks

- 2.9 Although the IMM has executed several operations with the Bank, this would be the first in the urban transportation sector.¹⁰
- 2.10 As part of program preparation, an analysis was conducted of the potential impact of program financing on the IMM fiscal accounts and public debt. This evaluation established that the IMM could meet all its obligations, both those resulting from its normal activities and those arising from the program: local counterpart funds for execution, financing expenses, and debt repayment. The findings of this analysis can be found in the electronic links and references. During the program execution period, the Bank will monitor the IMM's fiscal and institutional condition by reviewing the accountability report that the IMM submits every year to the Departmental Council. The annual submission of these reports to the Bank is a **special condition for program execution**.
- 2.11 The IMM will implement the program through the Urban Mobility Plan Executing Unit (UMPEU). In the IMM structure, the UMPEU reports to the Department of Urban Development, at the unit level. As part of program preparation, the Bank's

¹⁰ Montevideo Urban Sanitation Plan, phases I (loan 76/IC-UR, 1981, executed), II (loan 575/OC-UR, 1990-1998, executed), III (loan 948/OC-UR, 1996-2007, executed), and IV (loan 1819/OC-UR, 2007, in execution) and the Management Modernization Program (loan 1425/OC-UR, 2002, in execution).

Institutional Capacity Assessment System (ICAS) tool was used to assess the availability of funds to meet the Bank's requirements for technical and administrative management, the control system, and independent audits. In general terms, application of the ICAS indicated that the IMM's UMPEU has satisfactory institutional capacity, with a satisfactory degree of development and low risk.

D. Other risks

- 2.12 The main risk associated with program execution has to do with the process of negotiating with mass transit operators for a new system management and operation agreement. This process will also require coordination with national agencies, particularly the Ministry of Transportation and Public Works (MTOP), in connection with Ministry-regulated intermunicipal transportation routes. These matters will have to be resolved during program execution, and the IMM will have the support of the Bank's project team and international consultants with extensive experience in reorganizing public transportation systems in Latin American cities. All specifications for a detailed development and implementation strategy for the new STM route and service system will be determined on the basis of these processes.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 The program executing agency will be the Municipality of Montevideo (IMM) through its Urban Mobility Plan Executing Unit (UMPEU),¹¹ which reports to Department of Urban Development. The UMPEU works in close coordination with the Transit and Transportation Division and the Highway Division on all matters relating to regulation and control of transit and transportation and to bidding for infrastructure works. The UMPEU has a skilled permanent staff and is efficiently organized to physically and financially manage its projects. This group has been equipped and institutionally strengthened with support from the technical-cooperation operation (paragraph 1.12), and it will be further supported with institution-strengthening activities under this program.
- 3.2 The UMPEU will have the following responsibilities: (i) planning program investments; (ii) preparing and monitoring the bidding for works, goods, and consulting services; (iii) performing control, monitoring, and oversight of works; (iv) coordinating and supervising the environmental and social management plan

¹¹ The UMPEU was created by resolution of the Municipality of Montevideo on 2 October 2006 for the purpose of: (i) preparing the STM annual management plan and semiannual progress reports for the Urban Mobility Plan Permanent Commission (CPPMU), which consists of the General Directors of the Urban Development, Decentralization, and Planning Departments; (ii) designing and evaluating the alternatives for each STM component; (iii) analyzing the institutional and legal feasibility of the proposed STM; (iv) preparing plans for infrastructure works and actions; (v) drawing up bidding documents with specifications for the design and construction of infrastructure works and other services for system operation; and (vi) drawing up a community relations plan.

- and verifying implementation of the environmental mitigation measures; (v) performing accounting and records control, submitting disbursement requests, and ensuring accountability; (vi) preparing program reports; (vii) submitting evidence of compliance with contractual clauses; and (viii) monitoring and evaluating results.
- 3.3 **Procurement.** Procurement and contracting for the program will be consistent, respectively, with the “Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank” (document GN-2349-7) and the “Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank” (document GN-2350-7), both of July 2006. Significantly, in July 2008, the Bank gave its no objection to the bidding terms and conditions for the contracting of works under the Thermoplastic Paint Pavement Marking project, national competitive bidding process PMU 001/2008, with a reference amount of US\$2 million. The IMM has moved forward with this process subject to approval of the operation, in full compliance with the aforementioned policies and using the Bank’s standard bidding documents. The IMM obtained nonobjection for the Specific Procurement Notice on the same date.
- 3.4 **Retroactive financing and recognition of prior expenditures.** The Bank will retroactively finance and recognize expenditures incurred as the result of IMM activities under the current program’s components, provided such activities have taken place within 18 months prior to approval of the operation by the Bank’s Board of Executive Directors. The total amount of retroactive financing is limited to US\$4.5 million and the recognition of counterpart expenses to US\$2 million. These expenses are mainly investments in upgrading supplementary roads.
- 3.5 **Disbursements.** Disbursement requests will be backed with the supporting documentation required by the Bank under the ex ante supervision method. However, if the Bank finds there is sufficient proven institutional capability in the area of financial management and control, it may decide that the operation will be supervised following ex post supervision guidelines.
- 3.6 **Financial statements and audits.** During execution, the IMM will submit the program’s annual financial statements, duly audited by an independent auditing firm acceptable to the Bank and in accordance with its requirements (documents AF-100 and AF-300), or by the Uruguayan government’s auditing office (Tribunal de Cuentas de la República). The auditing firm will be selected and contracted on the basis of the procedures set forth in document AF-200. The terms of reference for the financial/operating audit will require prior approval by the Bank (documents AF-400 and AF-500). The annual financial statements will be submitted within 120 days after the end of the fiscal year, while the closing statements are to be submitted within 120 days after the final disbursement. If an auditing firm is chosen, the costs of the independent audit will be part of the program cost; otherwise, they will be local counterpart costs.

- 3.7 **Revolving fund.** Separate ledger and/or bank accounts will be established for handling loan proceeds and counterpart funding for the program. Once all conditions precedent to the first disbursement have been met, the Bank may advance up to 10% of the total loan proceeds to create a revolving fund. The amount for the revolving fund is justified by the cost of some of the works contracts, which may amount to as much as 20% of the total program amount, meaning that 5% would not be enough to make the necessary disbursements. Disbursement requests will be processed taking into consideration the progress in program execution compared to the tasks and activities contained in the annual work plan. The methods of reimbursement of expenses incurred and direct payment may be used in addition to the revolving fund. The IMM will prepare disbursement requests on behalf of the borrower as well as semiannual reports on the status of the revolving fund at the end of each calendar six-month period. These reports will be reviewed by the Bank during the relevant financial visits.

B. Summary of arrangements for monitoring results

- 3.8 The program's monitoring arrangements include administration missions, semiannual progress reports, annual work plan preparation procedures, annual audits, and specific evaluations to be performed during program execution. A detailed description of these activities is given in the electronic links and references.

C. Significant post-approval design activities

- 3.9 Although final designs are nearly completed for the investments to improve public transportation, particularly infrastructure works for the corridors and terminals, the new system management and operating framework has yet to be agreed upon with the operators. The Bank will continue supporting and assisting the IMM in the process of negotiating and implementing the new mass transit service management and operating framework.

URUGUAY
MONTEVIDEO URBAN TRANSPORTATION PROGRAM (UR-L1025)
RESULTS FRAMEWORK
MATRIX OF INDICATORS

PROGRAM OBJECTIVE	<p>The purpose of the program is to help improve mobility conditions and to make the Montevideo urban transportation system more efficient by upgrading the mass transit infrastructure and streamlining services, providing citizens with an accessible, safe, efficient, and sustainable transportation system.</p> <p>To achieve the proposed objectives, the program will finance infrastructure works and management measures aimed at implementing a modern public transportation system. In particular, the program will restructure and streamline mass transit routes and services; introduce prepaid fare and electronic ticketing systems; implement technological fleet management and operating control systems; build and adapt priority infrastructure for mass transit (enhancing corridors with exclusive and preferential bus lanes and terminal stations); modernize the traffic light network; adapt and expand the bicycle route network; and overhaul the road network in the major public transportation corridors.</p>
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Results indicator	Baseline	Target		Comments
Increase in average commercial speed for mass transit services in the main STM corridors	in km/hr Agraciada: 12 Garzón: 16 General Flores: 15	in km/hr Agraciada: 18 Garzón: 22 Grl. Flores: 22	+50% +38% +47%	Before works begin (baseline) and after infrastructure is upgraded and services streamlined. This indicator is associated with user travel time in the system and is easy to measure.
Increase in average passengers per kilometer for all mass transit routes and services	PPK = 2	PPK = 4	+100%	Before works begin (baseline) and after infrastructure is upgraded and services streamlined. This indicator reflects service productivity and overall system efficiency in general.
Reduction in the number of traffic accidents in the main STM corridors	Average accidents/month 13	Average accidents/month 10	+20%	During program execution. Part of IMM accident rate statistics. This indicator reflects a positive externality not directly attributable to the program, and is part of the IMM monitoring system.
Reduction in pollutant emissions in the city	PM10 (µg/m3) 48	PM10(µg/m3) 44	-10%	During program execution. Part of the IMM air quality monitoring system. This indicator reflects a positive externality not directly attributable to the program, and is part of the IMM monitoring system.

Engineering and administration	Base	Year 1	Year 2	Year 3	Year 4/ Target
Outputs					
Technology and computer equipment	70%	100%			100%
Public awareness and information campaign	20%	80%	90%	100%	100%
Ongoing consultations and surveys	20%	40%	60%	80%	100%
Monitoring - Environmental and social management plan	0%	40%	80%	100%	100%
Studies and designs for future corridors and terminals	0%		30%	70%	100%
Program executing unit	50%	70%	80%	90%	100%
Investments for improving public transportation	Base	Year 1	Year 2	Year 3	Year 4/ Target
Outputs					
Exclusive Agraciada – Garzón corridor (Agraciada sections)	0	2,663	1,142		3,805 km
Exclusive Agraciada - Garzón corridor (Garzón section)	0	4,946	1,237		6,183 km
Exclusive General Flores corridor	0	2,382	5,558		7,940 km
Marked alternative corridors	2,000	16,000			18,000 m2
Traffic light synchronization	0	10	53		63 intersections
Supplementary roads	0	13,035	3,259		16,294 km
Land	45,543	53,135			98,678 m²
Terminals and interchanges	0	2,154	1,377		3,531 m²
Results					
				in km/hr	Average commercial speed for
				Agraciada: 18	mass transit services in the main
				Garzón: 22	STM corridors
				Grl. Flores: 22	
				ppk =4	Average passengers per kilometer
					for all mass transit routes and
					services

URUGUAY
MONTEVIDEO URBAN TRANSPORTATION PROGRAM (UR-L1025)
PROCUREMENT PLAN

1. Ref. No.	2. Procurement description	3. Estimated procurement cost in US\$	4. Procurement method	5. Review (ex ante or ex post)	6. Source of financing and percentage		7. Estimated contracting or procurement dates	8. Status (pending, in process, awarded, cancelled)	9. Comments
					IDB %	Local %			
1. Goods and services									
1.1	Land - Colón Terminal		Swap	Ex post		100%	Aug-08	Completed	
1.2	Land - Hipódromo Terminal		Swap	Ex post		100%	Aug-08	In process	
1.3	Land	5,000,000	Expropriation	Ex post	100%		Nov-08	Pending	
1.4	Technology and computer equipment	200,000	NCB*	Ex post		100%	ongoing	Pending	
1.5	Posts with arm for traffic lights	20,000	Shopping	Ex post	100%		Aug-08	In process	
1.6	Public awareness and information campaign	500,000	NCB	Ex post		100%	ongoing	In process	
1.7	Monitoring equipment – Environmental and Social Management Plan	400,000	NCB	Ex ante	100%		Oct-08	Pending	
1.8	Traffic light synchronization	1,000,000	NCB	Ex ante	83%	17%	Oct-08	Pending	
1.9	Ongoing consultations and surveys	615,000	NCB	Ex ante	100%		ongoing	In process	
1.10	Other goods and services	200,000	NCB	Ex ante	100%		Oct-08	Pending	

1. Ref. No.	2. Procurement description	3. Estimated procurement cost in US\$	4. Procurement method	5. Review (ex ante or ex post)	6. Source of financing and percentage		7. Estimated contracting or procurement dates	8. Status (pending, in process, awarded, cancelled)	9. Comments
					IDB %	Local %			
2. Works									
2.1	Exclusive Agraciada – Garzón corridor (Agraciada section I from C.M.Ramírez to the Viaduct & supplementary roads: San Quintín, Llupes, Mármol, M.H and Obes and Uruguayana)	18,638,500	ICB**	Ex ante	95%	5%		Pending	
2.2	Exclusive Agraciada - Garzón corridor (Agraciada section II between Viaduct and G.Caraballo and Paraguay, Rondeau)	352,000	NCB	Ex ante	75%	25%		Pending	
2.3	Exclusive Agraciada - Garzón corridor (Viaduct)	3,000,000	ICB	Ex ante	100%			Pending	
2.4	Exclusive Agraciada - Garzón corridor (Garzón section)	22,348,500	ICB	Ex ante	100%			In process	
2.5	Exclusive General Flores corridor	11,078,000	ICB	Ex ante	100%			Pending	
2.6	Marked alternative corridors (thermoplastic pavement markings)	1,800,000	NCB	Ex post	83%	17%	Sept-08	In process	
2.7	Marked alternative corridors (road signs)	1,000,000	NCB	Ex post	100%		Oct-08	In process	
2.8	Routing and traffic light installation around the Libertad building	105,000	NCB	Ex post	100%		Oct-08	In process	
2.9	Hipódromo Terminals	5,300,000	ICB	Ex ante	100%			Pending	
2.10	Central Terminals	3,200,000	ICB	Ex ante	100%			Pending	
2.11	Colón Terminals	3,950,000	ICB	Ex ante	100%			Pending	
2.12	8 de Octubre and Belloni Interchange	4,070,000	ICB	Ex ante	100%			Pending	

1. Ref. No.	2. Procurement description	3. Estimated procurement cost in US\$	4. Procurement method	5. Review (ex ante or ex post)	6. Source of financing and percentage		7. Estimated contracting or procurement dates	8. Status (pending, in process, awarded, cancelled)	9. Comments
					IDB %	Local %			
2.13	Other minor works (less than US\$3 million each)	5,113,000	NCB	Ex ante	100%		Oct-08	Pending	

* National competitive bidding

** International competitive bidding

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/08

Uruguay. Loan ___/OC-UR the Eastern Republic of Uruguay
Montevideo Urban Transportation Program

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 Eastern Republic of Uruguay, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a Montevideo Urban Transportation Program. Such financing will be for an amount of up to US\$80,000,000 from the Single Currency Facility of 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.