



# GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project  
 TYPE OF TRUST FUND: GEF Trust Fund

## PART I: PROJECT INFORMATION

Project Title:	Towards a sustainable and efficient urban mobility system in Uruguay		
Country(ies):	Uruguay	GEF Project ID:	9480
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5802
Other Executing Partner(s):	Ministry of Industry, Energy and Mining (MIEM) with the collaboration of the Ministry of Housing, Land Planning and Environment (MVOTMA)	Submission Date:	20 July, 2016
GEF Focal Area(s):	Climate Change	Project Duration (Months)	36
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP	<input type="checkbox"/>
Name of parent program:	N/A	Agency Fee (\$)	163,517

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
(select) CCM-1 Program 1 (select)	GEFTF	819,500	2,063,196
(select) CCM-2 Program 3 (select)	GEFTF	901,733	7,221,904
<b>Total Project Cost</b>		<b>1,721,233</b>	<b>9,285,100</b>

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To promote an efficient, low-carbon transport model in Montevideo, to be replicated in other cities in Uruguay, based on the enhancement of institutional capabilities, the development of adequate regulations and the implementation of innovative technologies						
Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Policy framework for a low carbon transport system	TA	Adequate institutional capacity and regulatory framework in place to foster low-carbon mobility options	1.1. Tax regulations and incentives promoting efficient, low-carbon transport options 1.2. Implementation and monitoring of ecolabelling of vehicles 1.3. Alternatives for regulation of battery re-use, recycling and disposal 1.4. National MRV system of GHG and other environmental impacts of urban transport 1.5. Alternatives for financing the structural transition to low-carbon urban mobility 1.6. Strengthened coherence between land use planning and transport and climate change mitigation policies, with appropriate coordination within existing structures	GEFTF	524,000	481,000
	TA	Modal share of public transport increased, and quality control improved	1.7. Definition of key performance indicators (KPI) for quality control of public transport services, supported by a new traffic control center 1.8. Identification of improvement measures (fares, information...) and development of quality control systems with public transport operators. 1.9. Alternatives to current regulations and incentives for financing the public transport system, including low-carbon and quality aspects	GEFTF	232,000	6,065,500

2. Demonstration technological options in Montevideo	Inv	Accelerated adoption of electric vehicles in urban transport	2.1. Test results of five electric buses providing regular urban services for at least 12 months 2.2. Test results of six electric vans used by companies for goods delivery in Montevideo 2.3. Business models for optimal expansion and operation of electric fleets, including recharging options	GEFTF	735,000	2,358,600
3. Cultural change, dissemination and replication	TA	Innovative policy packages developed, aiming at changing mobility behavior and replicating innovative measures in other cities	3.1. Green corporate mobility management plans implemented in 4 major working places in Montevideo 3.2. Campaigning for walking and cycling, focusing on vulnerable users. 3.3. Project web site providing a knowledge management platform to other cities. 3.4. Plans for replication of project measures in other cities.	GEFTF	45,757	20,000
4. Monitoring and Evaluation	TA	Project level monitoring and evaluation is carried out	4.1 Project audits are conducted. 4.2 Terminal evaluation is conducted.		28,000	0
Subtotal					1,564,757	8,925,100
Project Management Cost (PMC)				GEFTF	156,476	360,000
<b>Total Project Cost</b>					1,721,233	9,285,100

**C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Ministerio de Industria, Energía y Minería	In-kind	481,500
Recipient Government	Ministerio de Vivienda, OT y Medio Amb.	In-kind	340,000
Beneficiaries	Intendencia de Montevideo	Loans	6,230,000
Private Sector	Bus Operators in Montevideo	Equity	1,000,000
Private Sector	Bus operators in Montevideo	In-kind	780,000
Others	UTE	In-kind	155,600
Private Sector	Urban freight delivery operators	Equity	252,000
Private Sector	Urban freight delivery operators	In-kind	46,000
<b>Total Co-financing</b>			9,285,100

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) <sup>b</sup>	Total (c)=a+b
UNDP	GEFTF	Uruguay	Climate Change	(select as applicable)	1,721,233	163,517	1,884,750
<b>Total GEF Resources</b>					1,721,233	163,517	1,884,750

**E. PROJECT PREPARATION GRANT (PPG) YES  No .**

## PPG AMOUNT REQUESTED BY AGENCY

Project Preparation Grant amount requested: \$50,000					PPG Agency Fee: 4,750		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee (b)	Total c = a + b
UNDP	GEFTF	Uruguay	Climate Change	(select as applicable)	50,000	4,750	54,750
<b>Total PPG Amount</b>					<b>50,000</b>	<b>4,750</b>	<b>54,750</b>

## F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS

Corporate Results	Replenishment Targets	Project Targets
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO <sub>2e</sub> mitigated (including both direct and indirect)	<b>365,000 metric tons</b>

## PART II: PROJECT JUSTIFICATION

### *Project Description*

#### *1. The context: environmental problems, root causes and barriers*

1. The GEF-6 strategy for the climate change mitigation focal area focuses on supporting integrated approaches that combine policies, technologies and management practices with significant climate change mitigation potential ((GEF-6 Programming Directions, §12). The proposed project takes that approach for the urban transport sector, and is aligned with the focal area's first and second objectives: "promote innovation technology transfer, and supportive policies and strategies" (CCM-1), and "demonstrate systemic impacts of mitigation options" (CCM-2).
2. Uruguay has experienced substantial economic growth in the last decade: GDP increased at an average annual rate of 5.4%; current official forecasts assume lower but still significant growth rates in future, at an annual average of 3.5%. Not surprisingly, economic growth has been coupled with a substantial increase in transport demand: for example, annual car sales have increased from just 15,143 cars in 2006 to a peak of 57,333 cars in 2013; in the last years, the car fleet keeps growing at rates closed to 10% (10.4% in 2013, 9.1% in 2014). Official estimates (*MIEM (2014) Escenarios de demanda*) assume further car fleet growth in the next two decades, although at a slower pace, to reach a motorized rate close to 390 cars/1000 inhabitants in 2035, compared to 113 veh/1000 inh in 2014.
3. The metropolitan area of Montevideo (including, besides this department, the departments of Canelones and San José) account for 60% of the country population and, although official estimates do not forecast a relevant change in this percentage in the future, they do foresee a slow but steady decrease of the percentage of the metropolitan population living in Montevideo compared to the other metropolitan departments (from current 67% to 65% in the next decade).
4. Modal split information is available for 2009. At that time, the modal share of car trips (either as a driver or as a passenger) was 38% in Montevideo and 36% in the whole Metropolitan Area; public transport shares were, respectively, 41% and 38%. Since then, the car fleet has substantially increased, and the number of passengers riding the public transport system has slightly decreased (by 4% between 2011 and 2015), suggesting that the car share is likely to be higher today than it was in 2009.
5. Coupled with these years of economic prosperity, Uruguay has engaged itself into an ambitious sustainable energy strategy to reduce its dependence from fossil fuels with remarkable results. Currently 95% of the electric matrix and 54% of the global primary matrix come from renewable sources, and CO<sub>2</sub> emissions from energy production are estimated below 35 g CO<sub>2</sub>/kWh, one tenth of the world average, and are expected to keep decreasing. However, these

achievements have not affected transport emissions, which keep growing at significant rates, well over 4% annually. Whereas in the past the share of transport in total CO<sub>2</sub> emissions from the energy sector was 40%, it was 56% in 2014, and is expected to reach 60% already in 2016, and to remain above 60% in the next decade. Transport will therefore remain the main sector driving CO<sub>2</sub> emissions growth in Uruguay, and a key challenge for the country in the next years. Considering the weight of Montevideo and its metropolitan area within the country, targeting urban mobility seems to be a cost-effective approach to achieve significant mitigation results.

6. The purpose of the project is to empower the relevant stakeholders in the urban transport sector to steer a strategic transition towards low-carbon mobility for passengers and freight. Curbing urban mobility emissions requires an integrated approach, combining the implementation of clean technologies, robust institutional frameworks in order to implement policy packages providing high-quality sustainable transport modes and discouraging private car use, and substantial cultural changes from the side of transport operators and citizens at large. This project proposal aims at developing such integrated approach.
7. Transport electrification is an attractive option to reap the benefits of the national energy policy and to mitigate GHG emissions. In spite of their higher procurement costs (twice to thrice those of diesel bus of similar size), electric buses are attractive when electricity from renewable sources is available at low costs, as is the case in Uruguay, allowing for investment recovery in 4 to 8 years, depending on energy costs. Furthermore, as batteries are recharged at night, they contribute to reduce the unbalance of day to night demand, a major challenge when renewables increase their share in the energy mix. Their still limited range (around 200 km per charge) fits well with the daily service of most urban lines. They offer higher acceleration capacity and the capacity to recover part of the braking energy (regenerative break), further improving their energy performance compared to diesel buses. Last, but not least, electric buses contribute to the urban environment, with no emission of pollutants (NO<sub>x</sub> and particles), and low noise. Similar benefits can also be associated to electric vans for urban freight delivery
8. From a sustainability perspective, and particularly with regards to CO<sub>2</sub> emissions, the current performance of the transport system in Montevideo is far from satisfactory. Apart from a paid parking area in the city center, there are no significant barriers to the use of cars in the city, the quality of public transport services is not good enough to attract new users, vehicle and fleet renewal do not fully benefit from existing technological progress, and citizens and businesses do not seem to pay much attention to the sustainability impacts of their mobility practices. The result is a car-friendly city, with limited plans for the improvement of public transport quality, and sub-standard performance of vehicles, with higher than necessary fuel consumption and emissions.
9. The Urban Transport Plan (*Plan de Movilidad de Montevideo "hacia un sistema de movilidad accesible, democrático y eficiente. 2010-2020*), approved in 2010, envisaged an ambitious strategy, with a central role to public transport, based on the implementation of an integrated system (sistema de transporte metropolitano, STM) with unified ticketing (STM card), and several BRT corridors connecting key terminals. Results from the first BRT corridor (corredor Garzón) were disappointing, due to a variety of reasons, from the lack of real congestion problems prior to the project to a design multiplying the number of regulated intersections and slowing down both, buses and general traffic. This led to a redesign in the second corridor (General Flores, expected to open by mid-2016), and to the necessity of completing a number of technical studies as a basis for the reformulation of the corridor concept and some other key aspects of the Urban Transport Plan, which is expected to be revised in the coming months (the call for proposals is at its final preparation stage). The third corridor (Av. Italia), probably the most critical one from a functional perspective, has been postponed lacking financing and public support.
10. In parallel with this revision process, IM undertook the implementation of a Traffic Control Center (TTC, *Centro de Gestión de la Movilidad, CGM*), which has opened in May 2016. The CGM currently controls only six major avenues (Rambla Sur, Av. Italia, Bv. Artigas, Av. Gral. Flores, Av. 8 de Octubre and Av. Rivera), some of them targeted also by the BRT system, controlling 170 intersections and providing for traffic light control, traffic monitoring and enforcement.

11. The project aims at empowering the stakeholders' capacities, prove the effectiveness of innovative policies and measures, and launch a reform process to establish an innovative-friendly environment for transport policy design and implementation. Efforts to make sustainable transport modes, and particularly public transport, more attractive have delivered modest results in the past due to the prevalence of a few relevant barriers, which this project proposal will address. These barriers include:
- a. The conservative management and operation practices of public transport operators. The five existing companies are confident with the diesel technology they have used for decades, and have adjusted their operations to a stagnated market, with little confidence in gaining new users. For example, public transport lines keep their traditional layout, including long overlaps in central sections, following an outdated logic to directly link origins and destinations without transfers; the recent changes in the fares system, aiming at facilitating transfers, have not been accompanied with a revision of the lines to make them shorter and better adjusted to actual demand.
  - b. The regulatory framework, with incentives encouraging business-as-usual practice, and discouraging innovation. While subsidies have been successful in their social objectives (keeping public transport affordable for all the urban population), they do not offer any incentives for operators to provide more comfortable services (e.g. with longer or low-floor buses), to increase capacity in congested lines, to increase fuel efficiency, or to move away from diesel technologies. The subsidy in gas-oil is one good example of these contradictions: whereas it has served to shield fares from fuel increases in the past, it is tailored to the traditional composition of the fleet, providing no incentives for operators to move towards more energy-efficient vehicles.
  - c. The weakness of some of the key government services dealing with urban transport and climate change mitigation. There is a need for adequate monitoring systems, in order to properly assess the performance of transport services and their environmental impact, and a need for sufficient professionals to identify the key challenges and to design and implement the necessary policy measures. Currently, the public sector lacks the capacity and means to undertake reform and to incentivize quality, and public authorities remain reluctant to undertake coherent policies to convince users to move away from cars.
  - d. The prevailing urban culture in the city, which sees cars as a key symbol of collective prosperity, individual autonomy and as the most efficient and convenient transport mode. There are few constraints to car use in the city, such as streets reserved to public transport, on-street parking paying zones with time limitations, and public transport-only turns at intersections.
  - e. The barriers associated to a major technological change, like moving from diesel to battery technology. The new technology requires different expertise for maintenance, charging and operations; although the new technology is now reliable and simpler to manage than the old one, it will require significant capacity building within the operators' structures.
  - f. The financial barriers associated to the higher costs of electric vehicles and the associated investment needed for charging and other infrastructure. The costs of electric vehicles are significantly higher (twice to three times the cost of regular buses), and can be recovered only in the medium to long term; recovery is linked to the relative cost of electricity compared to fuel, for which there is also some uncertainty.
12. Without the GEF, the technological transition to low-carbon mobility will probably progress at a much slower rate. Costs of electric vehicles are significantly higher and have to face the skepticism of transport operators with a conservative, risk-averse management culture. Furthermore, the systemic changes necessary in urban transport policy and operations will not materialize, as the incentives for establishing a more collaborative framework between public transport authorities and operators, and across the different sectoral services in the national and local governments will be weaker, and lacking a dedicated project team; last but not least, progress for a cultural change in users' mobility behavior and decision-makers' priorities will be slowed-down, as the resources and technical competence necessary to implement innovative transport demand management measures will not be available, due to current fragmentation and lack of clear competences and resources.
13. The expansion of electric vehicles in Montevideo is hampered today by the lack of plans for the deployment of public charging points. The electric utility (UTE) is however receptive to this problem, and has just opened the first charging point, in order to provide service to the fleet of electric taxis launched in August 2015. Specific charging points would

not be necessary for the small pilot fleets envisaged in this project, but a deployment plan will be needed, and will be developed by the project in order to support the expansion of electric fleets beyond the project life. Furthermore, financial incentives would be necessary to compensate for the additional costs of electric technologies; these will also be addressed by the project. Currently, there is a full exemption on custom duties, but it only targets electric cars, and would expire in November 2016,

14. This project proposal aims at addressing these barriers, and to make it possible for all transport stakeholders to steer urban transport towards more sustainable practice. The contributions expected from the project should facilitate (1) the revision of the current system of regulations and incentives, encouraging the implementation of new, low-carbon public transport technologies, such as electric buses; (2) the promotion of an innovative culture among managers in the public transport and freight distribution sectors, open to the early adoption of new technologies, and keen in adopting a pro-active approach to gain new customers, and (3) closer cooperation among the various public authorities and agencies with competences in the field, facilitated by the availability of adequate mechanisms to properly monitor the transport sector (particularly from an environmental perspective) and to adopt fact-based integrated policies.

## **II. The baseline scenario**

15. The project aims at strengthening the capacity of stakeholders in the transport sector to speed up the implementation of strategies towards low-carbon mobility. The proposal builds upon lessons learned and achievements from past successful GEF projects in Uruguay, which in spite of their modest budget, have been critical for facilitating the current transition to sustainable energy sources. This was the case particularly of the Uruguay Wind Energy Programme (UWEP), which is at the basis of the impressive development of wind energy in the country, the Electricity Production from Biomass in Uruguay (PROBIO) project, to expand the production of energy from biomass and the Energy Efficiency Project, which was instrumental in setting the institutional basis for MIEM to implement energy demand and efficiency policies.
16. Along the same approach, this project proposal will strengthen and facilitate current efforts in Uruguay to curb the growth of CO<sub>2</sub> emissions. In fact, Uruguay has already taken significant decisions in the last years to mitigate climate change. One early milestone was the adoption, in December 2009, of the National Climate Change Plan (*Plan Nacional de Respuesta al Cambio Climático*).
17. The first Biennial Update Report (BUR), submitted in December 2015, includes some on-going or planned measures in the transport sector, such as public transport fleet renewal, promotion of active urban transport and the implementation of a new traffic control center in Montevideo, although the specific implementation actions will need to be defined. Furthermore, the Intended Nationally Determined Contributions (INDC) for the country aims at a reduction of the intensity of CO<sub>2</sub> emissions compared to GDP of up to 40%, if access to the necessary additional means of implementation are provided, inter alia in the transport sector. This will require significant action in the transport sector, as the main CO<sub>2</sub> contributor and the one with more steady growth. The National Policy on Climate Change, currently under preparation, offers an excellent opportunity to further refine the measures to be implemented in the transport sector.
18. Other public policies are well aligned with mitigation efforts: Firstly, Uruguay set in place an energy strategy (*Política Energética 2030*) in 2008, and has successfully reduced the country's dependence on fossil fuels since then, and increased the relevance of wind and biomass as renewable sources of energy in the country's primary energy matrix: following an investment of some USD 7,100 million in 2011-2015, renewables were expected to account for more than 50% of the primary energy matrix in 2016, and this target was already overachieved (56%) in 2015. This is coupled by its new national energy efficiency strategy (*Plan nacional de eficiencia energética, 2015-2024*), which includes the implementation of new technologies in transport as a key component. Secondly, the government is supporting the use of affordable public transport services with several measures, such as subsidies to public transport operators financed through an additional tax of diesel fuel sales (*fideicomiso del gasoil*, since 2006). Thirdly, the

department (Intendencia de Montevideo, IM) is implementing its Sustainable Mobility Plan (2010-2020) , with five general objectives: (i) to implement a rational, efficient and safe transport model for passengers and freight; (ii) to optimize and make accessible to all the metropolitan spatial structures and systems; (iii) to improve transport infrastructure, in accordance with traffic flows and mobility needs; (iv) to minimize the negative externalities associated to transport; (v) to improve mobility safety in Montevideo. Some key measures have already been implemented, such as an integrated ticketing system, and two priority corridors for public transport (BRT corridors), although with some controversy and mixed results.

19. Along these policy guidelines and priorities, a variety of additional measures are expected in the next years, within the project's life. The national government, through the Ministry of Energy and Mining (MIEM) and the Ministry of Housing, Spatial Planning and Environment (MVOTMA), is revising the legal framework affecting transport, such as the taxation of vehicles (for promoting more efficient vehicles and low-carbon technologies), the improvement of information to consumers on vehicles' consumption and emissions (eco-labelling), and the management of the life-cycle of electric batteries used by road vehicles. In the context of the future National Policy on Climate Change, the national government is also designing improved monitoring, review and verification (MRV) systems on GHG emissions, for which accurate monitoring of the transport sector will be a central element. The department of Montevideo (IM) is planning an extensive household survey to be undertaken in 2017, which would provide valuable information on urban mobility in Montevideo, facilitating the development of reliable estimates on transport emissions.
20. Existing financial incentives have considered electric vehicles only marginally. Subsidies on diesel fuel for public transport companies have the effect of keeping them anchored to diesel buses, and the current full exemption on custom duties only target electric cars, and would expire in November 2016, although the Government is considering to extend it beyond that date and to also cover vans, in the context of its national policy on climate change mitigation.
21. The five public transport operators in Montevideo are developing their plans for fleet renewal, benefiting from financial supporting schemes established by the national government: operators have access to priority loans from the national bank (BROU) for the procurement of new buses, providing as a guarantee a part of the subsidies they receive from the government on gasoil consumption. Similarly, freight delivery companies in the city are also planning to undertake partial renewal of their fleets in the next years. As it is the case in many cities around the world, bus operators in Montevideo do not have medium-term plans for systematic fleet renewal, and prefer to undertake renovation on an opportunistic basis, depending on their financial position, and the offers received from manufacturers. IM enforces some restrictions on vehicle age and characteristics, and it is worth noticing that the average age of the fleet remains at quite reasonable levels (8.5 years). However, all operators do keep today a significant percentage of vehicles which should be renewed in the next 5 years (from 16% to 66% of the fleet, depending on the operator), thus offering a good basis for the expansion of the electric fleet. Although without precise figures, the situation for freight distributors seems to be the same, offering a significant opportunity for renewal. Current financing opportunities from BROU are expected to be discussed, in order to better fit them to the specifics of the acquisition of electric vehicles; changes in the fuel subsidies-used as a guarantee- should also be modified in order to make electric buses eligible for them. Regarding the pilot, the necessary resources for the operation of the new vehicles have already been programmed, and companies have also established training programs for adequate driving of the new vehicles, including eco-driving principles. The electricity facility (UTE) has plans to encourage electricity use in new sectors, particularly at night-time, in order to reduce the unbalances in daily demand. However, it is worth noticing that the current framework does not encourage that these financing commitments be dedicated to innovative, low-carbon solutions, if no further action is taken by the authorities.
22. Some actions are also in place regarding the improvement of the quality of public transport services in Montevideo. This includes the implementation of a new traffic control center in the city, with the ability to track public transport vehicles and their adherence to schedule, and to assess the impact of potential changes in current traffic management to improve public transport speeds and reliability. The department of Montevideo (IM) has planned to revise now its sustainable mobility plan (2010-2020), with the support of IDB, in order to take into account the lessons learnt from the disappointing results of the first BRT corridor; in this context, IM is also planning to review other potential

measures to improve the quality of services. Public transport operators are also undertaking their own piecemeal activities to improve performance, although with limited ambition for innovation.

23. All these planned actions currently have a limited scope, but they provide enormous opportunities to implement more ambitious, "disruptive" changes in current transport trends, provided they are supported with strong technical advice to include best-available experiences in other cities, and they leverage the investment needed to implement additional functionalities in some of the systems (such as thorough monitoring of public transport quality and inclusion of priority in the traffic management system of the department of Montevideo, and reliable estimates and monitoring of GHG emissions from urban transport in the government's climate change MRV system). It will also be necessary to dedicate well-trained and dedicated professionals to these functions, so that they can be familiar with innovative experiences around the world and provide that expertise to Montevideo. Bolder action seems necessary now. Official estimates of CO<sub>2</sub> emissions from transport show significant annual growth in the last years (above 5%), which would continue growing at a slightly lower rate (4%) beyond 2020. Furthermore, future reductions in the share of fossil fuels in the primary energy matrix would require more fundamental changes in the transport sector. Last but not least, public transport patronage in Montevideo is stagnated, if not declining: ticket sales in 2015 were more than 4% below the 2012 peak.
24. The baseline scenario is therefore favorable to a CO<sub>2</sub> emissions reduction in the transport sector, but the current level of ambition is modest, moving slowly on the path of change: more decisive action is therefore, necessary.

### **III. *The alternative scenario***

25. The project's objective is to promote an efficient, low-carbon transport model in Montevideo, to be subsequently replicated in other cities in Uruguay, based on the enhancement of institutional capabilities, the development of adequate regulations and the implementation of innovative technologies. The low-carbon transport model envisioned by the project is characterized by (i) committed public institutions and empowered stakeholders, acting under a pro-active legal framework to accelerate the transition towards low-carbon mobility; (ii) an innovative-friendly environment, making use of state-of-the-art technologies and policies, such as electric vehicles; (iii) collaborative planning and implementation environments, getting a growing number of cities, stakeholders and the public at large actively involved in the expansion of sustainable mobility practices.
26. The project's strategy is based on four principles: (i) an integrated approach, creating synergies among the otherwise poorly coordinated actions and decisions of stakeholders at the institutional level (different ministries at the national government, and local governments), at the operational level (the variety of public transport providers) and at the users level (major employers attempting to improve the commuting conditions of their employees); (ii) encourage reliable implementation of innovation, through the provision of state-of-the-art technical support to the stakeholders, so that they can confidently identify and adopt the best low-carbon options available; (iii) the implementation of pilots as an effective way to remove barriers and to convince future adopters; (iv) ambitious dissemination and replication actions reaching stakeholders and the public at large in other cities in the country.
27. Therefore, the project's strategy moves well beyond the implementation of some actions. Benefiting from the lessons learned from the successful experience of the GEF/UNDP project on wind energy, this project also aims at favoring the necessary structural changes in the public administration, and within the key stakeholders involved, and establishing a pro-active legal and institutional environment to accelerate the adoption of innovative, low-carbon mobility solutions at all levels, from institutions to operators and final users.
28. It is the project ambition to make the urban transport sector a major contributor to climate change mitigation. The current energy policy in Uruguay offers unique opportunities to undertake an ambitious electrification effort in the urban transport sector. This is coupled with strengthened cooperation among the government services with a competence on transport policy, empowered with adequate policy monitoring tools, and with the provision of more attractive, good quality alternatives to private car use. Pilot actions are expected to be replicated by the stakeholders in Montevideo, its metropolitan area and other cities in the country. Under the alternative scenario, an adequate

framework to promote an efficient, low-carbon transport model is established, and therefore contributing to the transformational change of the urban transport sector in Uruguay.

29. Although the current Urban Transport Plan does not develop an explicit mitigation strategy, it does contain many elements, which could be associated to either, "improve", "shift", and "avoid" measures usually considered in mitigation action plans. The Transport Plan was developed as a result of the 2006 Land Use Plan (*Plan de Ordenación Territorial de Montevideo, 2006*), and aims at integrating the transport system within a metropolitan transport concept favoring proximity, land use and sustainable mobility (the "avoid" component, reducing the length and number of motorized trips, mainly by car); the plan heavily relies on the improvement of public transport as a way to curb the growth of car use in favor of soft and public transport modes (the "shift" dimension). However, the plan does not include measures under the "improve" section: apart from recent action to promote electric taxis, there are no measures for the adoption of more fuel efficient or low-carbon technologies, and no clear strategy on that front. This project is expected to foster public and corporate action in that direction.
30. The development of an adequate financial and regulatory environment will be crucial for a successful transition towards electric vehicles in the public transport and urban freight delivery sectors. Some initiatives have been adopted in Uruguay in the past years, and that the project will provide the support to creating an enabling environment for scaling up the use of electric buses and vans. As mentioned above (§13 and §19), some steps have already been done in this direction, such as exemptions in custom duties for passenger cars. Exemptions were initially approved until November 2016, but the Government is considering its continuation beyond that date, and its extension to also cover vans. Furthermore, since 2012 hybrid and electric vehicles benefit from a lower excise duty (IMESI). The impact of these measures has been modest so far, and there is a need to revise them in the framework of the project, in order to facilitate the uptake of electric vehicle technologies. Electric taxis have received additional support (a 50% reduction in the license cost, plus USD 5,000 subsidy for the procurement of an electric vehicle). The Government is also aware of the dysfunctions associated to the gasoil subsidy for public transport (§20 above): besides jeopardizing the transition towards electric vehicles, it has other effects, like discouraging the use of larger buses, and the project will provide the support necessary for a thorough revision of public transport subsidies. During the preparation of the Project Document it is expected to establish a more detailed plan of action in this area, with the relevant stakeholders within the National Government.
31. The project is structured in three components, aligned to four main outcomes, covering the institutional, technological, and replication dimensions necessary to sustain structural change.
32. **The first component** (*policy framework for a low carbon transport system*) will develop an adequate context (covering institutional and regulatory issues) for the transition towards a low-carbon transport policy. This component aims at strengthening the current institutional and legal framework for sustainable urban mobility, including capacity building in the key institutions and stakeholders involved. This component will build upon some actions already underway or planned to mobilize a wider, better integrated effort, with two expected outcomes.
  - a. The first outcome is aiming at the consolidation of an adequate institutional and regulatory framework, empowering the national administration to steer the transition to low-carbon mobility. This will be attained through a collaborative approach with transport stakeholders, social actors and the public at large, making use of technologically-sound measures. It will therefore incentivize the use of more efficient, low-emissions vehicles combining (i) sound tax incentives and regulations to the adoption of electric vehicles (initially focusing on public transport buses and delivery vans, but with an ambition to expand to other fields) with short, medium and long-term targets and measures; (ii) effective implementation and monitoring of the regulations on eco-labelling, currently under development, as an effective transition tool to progressively encourage road vehicle purchases towards the most efficient technologies available, so that Uruguay can get full benefit from technological progress in the field; (iii) adoption of a pre-emptive approach towards the environmental footprint of future transport electrification, through the identification of the best alternatives for battery re-use, recycling and disposal; (iv) empowering public administrations and public involvement in decision-making on transport emissions, through the development and implementation of a reliable and self-improving monitoring, revision and verification (MRV) system of mobility trends and their climate change

impacts, and the provision of alternatives for financing the structural transition towards low-carbon urban mobility; (v) strengthened coherence between land use planning and transport and climate change mitigation policies, with appropriate coordination within existing structures, building upon the privileged role of MVOTMA as the National Government's Department in charge of both, climate change and spatial planning issues.

- b. The second outcome will move one step forward, with the ambition to accelerate the transition to low-carbon mobility at the urban level, through a thorough revision of current operational regulations and practices in urban public transport and the identification and implementation of alternatives putting the user at the center of service provision as a way to stop and revert the current loss of passengers to private car use. This is seen as a necessary prerequisite for the adoption of new limitations to private car use accepted by the public, and as an excellent complement to the future revision of the sustainable mobility plan. Three closely-interrelated outputs will contribute to this outcome. (i) Definition of key performance indicators (KPI) on the quality of public transport services. A KPI system is essential for supporting the public transport authority (IM) in its control and supervision of service provision by public transport operators; furthermore, a KPI system is also necessary for public transport operators to identify areas of improvement in their practice, and to establish sensible plans to attract new users; KPI are also an essential instrument to design and implement new regulations with incentives and disincentives to operators. The implementation of the new traffic control center (TCC) offers a unique opportunity to develop such a system: the TCC can effectively include tracking of public transport vehicles, data collection and KPI estimates and monitoring. The TCC is also an excellent instrument to improve on-street operations of public transport vehicles, to increase traffic speeds for buses and to make parking enforcement more effective. The attractiveness of public transport is expected to increase also as a result of parking regulations- currently implemented only in the city center-, which could be eventually expanded to other areas of the city facing significant car pressure. It is worth noticing however that IMM is not planning to implement other economic measures such as congestion charging during the project life, on the basis of reduced-if any- public support and social equity concerns. (ii) Definition of improvement measures of public transport services. The KPI system will provide an excellent tool for public transport authorities and public transport operators to negotiate adequate measures to improve the quality of public transport services and gain additional passengers. The wide experience in cities around the world on public transport improvement measures shows that they are heavily dependent on the context: the cultural environment, prevailing mobility behavior, availability of resources, technical expertise of public transport operators, and legal framework, amongst others. The project intends to work together with the public transport authority (IM) and with the five public transport operators in order to collaboratively identify an adequate plan to make public transport services more attractive to current car users; this will require changes in the current legal framework establishing the relationships among stakeholders. (iii) Alternative frameworks for financing public transport systems, with a focus on low-carbon and quality aspects. The project will provide proposals for the reform of current incentives and disincentives in the public transport system, in order to align them to the new priorities of promotion of low-carbon technologies and increasing public transport share compared to private car use; these proposals will build upon international best-practice, and will be defined in a collaborative way with all the stakeholders involved.

33. Most of the co-financing for component #1 (USD 6,065,500) refers to the new traffic control center the Municipality is implementing. This center will provide critical support to improve traffic conditions for public transport, making it a more attractive mode for users and encouraging modal change. Furthermore, co-financing under component #1 also includes the update of the household mobility survey, providing updated information on current mobility patterns in Montevideo; this information is crucial as a factual basis for any action fostering modal change towards sustainable transport modes.

34. IDB support to mobility policies in Montevideo has been significant in the past. In the coming months, IM will advance in the reformulation of the SMP with the support of the IDB. The involvement of IM in this proposal will serve to facilitate the alignment of the pilots with any changes which could be introduced in the strategic framework provided by the SMP, and to fully benefit from the support of the TCC.

35. **The second project component** (*demonstration of technological options in Montevideo*) includes the pilots to be undertaken. The expected outcome of this component is to accelerate the adoption of electric vehicles in urban transport for both public transport services and freight delivery; pilots are considered by the project strategy as essential to overcome the current financial and technological barriers, described above, which make operators skeptical towards new technologies.
36. This outcome is expected to be achieved through 3 outputs:
- a. Successful testing of five electric buses, which will be integrated in the fleets operating in Montevideo for at least 12 months; these tests will provide the operators with the factual information to assess the operational savings provided by electric buses, and which compensate the higher upfront investment. The tests will also serve to check the users' response to more comfortable services, and to identify the organizational changes necessary in the operating companies to move towards full or partial electrification in future. At least two manufacturing companies have already expressed their interest in providing such vehicles, which are already providing service in cities in China and other countries. The electric utility (UTE) will be supporting this activity, providing the necessary support to the changes in the electrical infrastructure of the operators' depots.
  - b. Successful testing of six electric vans used by freight delivery companies in Montevideo. UTE has already significant experience as a user of electric vans, and this experience will be put at the service of freight delivery companies in the city willing to explore the advantages of electric mobility.
  - c. The final output within this component will refer to the preparation of business models for each of the companies involved in the pilots (which could be eventually expanded to other companies in Montevideo and other cities) for efficient electrification of their fleets; the business models will also include the necessary changes in the electric installations (within the companies' premises and also in terms of public charging points), and the eventual changes in current UTE policies (for example, the development of new fares targeting electric vehicles). It is worth noticing that no specific charging infrastructure will be necessary for the pilot, as the number of vehicles involved is reduced, and operations allow for night-charging at the depots of bus and freight delivery companies. However, under this output, UTE will develop the necessary strategy for the deployment of both, charging points at depots allowing for a higher number of vehicles, and alternative public charging options (mainly, quick-charging points at some key line terminals).
37. **The third project component** (*cultural change, dissemination and replication*) refers to the cultural changes, and the dissemination and replication of the project's activities and outputs. This is a critical component within the project's strategy, as it will provide most of the expected indirect emissions savings, and will make structural change possible, as it was the case in the past for the promotion of wind energy in the country.
38. The expected outcome of this component is to succeed in changing the mobility behavior in the commuting routines of part of the staff in some major working centers (proving that change is indeed possible), and to mobilize other cities in the country (and other transport companies and working centers) to implement similar measures.
39. This outcome is expected to be achieved through 4 outputs:
- a. The successful implementation of so-called green corporate mobility management plans in four major working centers in Montevideo. Green mobility management provides tailored alternatives for major working centers and corporations to reduce the carbon footprint associated to their staff's commuting and their business trips. Green mobility management plans are typically developed within each working center through in-depth interviews and mobility coaching sessions with the employees, and are implemented with strong support from managers and staff representatives; a "mobility manager" is appointed within the organization to implement the measures, which typically include teleworking, support to public transport use, carpooling, and enterprise van or bus services, among others; another area of attention refers to business trips, which can be optimized and at least be partially redirected towards sustainable transport modes. Green mobility management builds upon existing plans in some working centers in Montevideo to facilitate car-pooling among their employees, and provides a substantially better integrated, structured approach. It is considered

that at least four major working places could be involved: MTOP and MIEM (which are located quite close, and could be integrated for this purpose), MVOTMA, UTE, and IM.

- b. Increasing the number of "soft" (walking and cycling) mode users, through campaigns focusing on particularly vulnerable social groups, such as children and teenagers, the elderly and also addressing gender barriers to walking and cycling.
  - c. A project website, which should serve as a platform for dissemination about the project's activities and results, providing material for other public administrations, transport companies and cities in the country to implement sustainable mobility measures. The project website is also expected to serve as an information platform, providing information such as the MRV system on transport (component 1) or the KPI on public transport in Montevideo to stakeholders and citizens at large, as a way to foster debate on sustainable mobility and to accelerate the implementation of more collaborative practices in transport planning and policy making. Furthermore, the website would serve as a means for networking between Montevideo and other cities in the region and around the world adopting similar sustainable transport projects.
  - d. Plans for replication of project measures in other cities. The experience from similar projects around the world shows that replication in other cities cannot be attained solely through dissemination and availability of information about the project; a more active approach is needed, providing some incentives for cities to adopt the innovative policies proposed. The project will offer some technical support and assistance for municipalities and departments interested in replicating some of the measures, in order to tailor them to their particular context, and will explore with the national government about possible incentives to encourage them to implement some of the measures tested in the project. It is expected that at least two municipalities or departments will get involved in the replication of these measures.
40. A separate component has been established for project monitoring, evaluation and reporting. This component includes the preparation of audit reports and the terminal evaluation.
41. The proposal is aligned with the GEF strategy for the CCM focal area: on the one hand, due to the relevance given to innovation and technology transfer, which becomes the main component of the project (CCM1-Program-1); on the other hand, through its systemic approach (CCM2-Program3), working with all the relevant stakeholders of the urban transport system as a way to remove current barriers to the development and enhancement of alternatives to private car use.

#### **IV. Incremental reasoning**

42. The added value of a GEF-funded project relies on its capacity to articulate in a consistent and integrated strategy what exists, at best, as piecemeal attempts to mitigate the climate change impacts of urban mobility. Furthermore, GEF-funding will provide the resources to empower stakeholders, and particularly the national and local governments, to sustain a consistent leadership in the transition to low-carbon mobility, moving beyond the current lack of specialization of dedicated professionals, dealing with too wide fields and competing priorities. There is wide consensus among stakeholders about the need for disruptive changes in the urban transport system in Montevideo and other cities, but they are unable to overcome on their own the inertia of a consolidated business-as-usual approach.
43. GEF support will also serve to reach stakeholders, show them the advantages of sustainable options, and engage them in actively adopt low-carbon solutions. For example, the electrification option is well justified by the availability and low-cost of electricity from sustainable sources and the willingness of the provider (UTE) to support the emergence of demand characterized by its flexibility. Another argument for electrification in transport lies in the possibility of making most of the recharging operations at night, helping to reduce the unbalance between day and night demand, which is one of main problems linked to the expansion of renewables in the generation matrix. However, the higher investment costs are only recovered by transport operators in the long term (6 years or more), and represents a radical change in their operational and maintenance practice, requiring substantial efforts from operators in their daily practices; the project pilots would therefore serve to launch the transitional process, and they cannot occur without the GEF contribution to the procurement of the first vehicles. The positive results of the pilots would serve to adapt current incentives and regulations, and to prepare sound business plans for the expansion of electric fleets.

44. Without the project, fleet renewal plans for buses and vans are likely to remain absent, with operators making renewal choices on an opportunistic basis and lacking a strategic vision. Certainly, higher costs and risk-adverse management will make the electrification option hardly attractive, if considered at all, by managers. The project will remove these barriers by (a) providing the additional funding required for procurement; (b) revising current financial incentives and supporting the government in setting up alternative ones, better suited for the electric option and (c) making operators familiar with the new technology and helping them and their staff in the transition.
45. Furthermore, GEF-funding will facilitate the revision of the legal and institutional framework in a consistent, integrated way, moving beyond a few isolated initiatives to implement changes (ecolabelling, public transport incentives, etc.). The project is intended to encourage a comprehensive reform in vehicle regulation and in the capacity of supervision and effective control of the urban public transport authority. The main stakeholders (transport operators, ministries, IM and UTE) have already plans to implement different actions (fleet renewal, energy efficiency programs, new traffic control center, actions to expand sustainable energy demand), which GEF will help to align in the direction of promoting innovative, sustainable urban transport in Montevideo and other municipalities. Innovations will be supported by the project's proposals to reform the regulatory framework, based on quality assurance and supported by new tools (such as the traffic control center the municipality will be implementing). Finally, users and stakeholders at large will benefit from a more active and consistent policy, encouraging sustainable transport alternatives, to be subsequently expanded through dissemination and replication.
46. GEF funding will also serve to expand the ambition and visibility of actions already under way, making it easier for governments at all levels to engage stakeholders, urban transport users and the public at large in more collaborative, transparent policy making. The GEF supported project will serve to expand the public availability of information (MRV systems) on the environmental and efficiency performance of urban transport, empowering stakeholders and citizens to engage in transparent dialogue with the relevant government services. Furthermore, the project will also increase the capacities within those government services, helping them to cope with the challenges of collaborative planning and decision-making.

## **V. *Global environmental benefits***

47. The project's expected impacts are well aligned with the global environmental benefits identified for the CCM focal area, mainly mitigated GHG emissions, increased use of renewable energy and decreased use of fossil energy resources, and improved energy efficiency.
48. Some preliminary estimates of mitigated GHG emissions and decreased use of fossil fuels can be made at this stage, and more accurate ones can be provided at the CEO Approval stage, once the exact boundaries and scope of the different project actions are defined. The replacement of 5 diesel buses and 6 urban delivery vans by electric vehicles would provide direct emission reductions estimated at 3,000 tons CO<sub>2</sub> in a lifetime of 12 years. Modal change to public transport as a result of increased service quality could provide a transfer of 2% of current private car trips, and cultural changes an additional 1%, with direct emission reduction estimated at 5,700 t CO<sub>2</sub> per year, or 68,600 t in 12 years. Cultural changes on users mobility behavior through green corporate mobility management plans in major working centers and other measures could provide additional savings estimated at 300 t per year (provided 5% of the targeted workers would accept to change from private car to other modes) or 3,300 t in 12 years. The impact of ecolabelling (provided associated measures on taxation are implemented) could account for a reduction of 270 t CO<sub>2</sub> per year or 21,000 t in 12 years (are the effects for each vehicles are accumulated during its whole life). Total direct CO<sub>2</sub> emission savings would account for 6,500 t per year or 99,300 t in 12 years.
49. Any attempt of estimating indirect GHG emission savings at this stage can only be made at a very preliminary level. The results from the pilots are expected to influence future fleet renewal plans in the 5 companies operating in the Metropolitan Area of Montevideo, and also in other cities around the country. For Montevideo alone, it could be considered feasible to renew 5% of the fleet (76 buses), which would provide additional savings of 47,000 t of CO<sub>2</sub> in 12 years. For modal change, a replication factor of 3 could be expected, following additional measures to improve service quality and further actions to encourage cultural changes, in the context of the new urban mobility plan, with a CO<sub>2</sub> emission reduction estimated at 206,000 t. The replication of mobility plans in other major working centers and

service centers (hospitals, educational centers...) could justify a replication factor of 4, resulting in additional savings of 13,000 t of CO<sub>2</sub>; total indirect CO<sub>2</sub> emission savings could be estimated at 266,000 t CO<sub>2</sub>. Total direct and indirect emission savings would reach 365,000 tons of CO<sub>2</sub> in 12 years. More accurate estimates will be prepared during the project drafting phase.

## VI. Innovation, sustainability and potential for scaling up

50. The project proposal intends to accelerate the implementation of innovation in four different areas: (i) technological, building upon the successful energy policy turn in Uruguay towards renewables to make the country one of the regional front-runners in urban electro-mobility, while keeping in mind the particular local requirements of users; (ii) public transport quality, implementing an innovative participatory approach involving authorities, public transport operators and users, and learning from the experience of the current urban mobility plan (2010), which included this topic, although with mixed results; (iii) mobility management tools, adapting to local conditions the innovative practices (mobility coaching, transport coordinators...) learnt in Europe and other regions; and (iv) a multilevel governance approach to urban mobility, exploring through the project team new collaborative models among the various public agencies and institutions with responsibilities in urban mobility (including energy, industry, infrastructure, and regulation aspects).
51. The sustainability of the project is highly likely under the current circumstances, as it suits well the strategic priorities of all the stakeholders involved: the national government is actively promoting the introduction of sustainable energy sources, and has identified transport as a key sector for action; the local government has been engaged for more than 10 years in a move towards sustainable mobility, with public transport improvement as the backbone of its strategy, and the expected revision of the current urban mobility plan is likely to provide a long-term framework in this direction, facilitating further actions after the project's completion. Furthermore, the country governance is already making use of formal and informal collaborative structures, such as the inter-institutional group on energy efficiency in transport (*Grupo Interinstitucional de Eficiencia Energética en el Transporte*), set up two years ago, or the National Climate Change System (*Sistema Nacional de Respuesta al Cambio Climático*, SNRCC), providing excellent conditions for the continuation of the activities launched by the project team beyond the project lifetime. An Interinstitutional Transport, Energy and Environment Group (*Grupo interinstitucional de transporte, energía y medio ambiente*) was set up two years ago in order to facilitate coordination among key stakeholders, such as ministries (MVOTMA, MIEM, MTOP, MEF), the departmental government of Montevideo (IM), and the public companies in the areas of fuels (ANCAP) and electricity (UTE); the group has proposed some changes in regulation in order to facilitate the transition to low-carbon mobility. The departmental government of Montevideo (IM) is strengthening its technical and regulatory capacities in the area of transport, keeping a strategic view, which will facilitate the sustainability of the project. Finally, the five urban transport operators active in the city are fully conscious of the challenges ahead to keep current customers and gain new ones, and the need to adopt innovative approaches in the future, contributing to the sustainability of the project.
52. The project actions are modest in size, but have been chosen by their capacity to remove existing cultural, legal, and technical barriers, and their ability to be replicated and scaled up in the short term. The framework conditions for transport electrification in the country are particularly favorable (and moving towards an even more positive scenario as renewables keep expanding their share); furthermore, the country has already established financial mechanisms to support public transport fleet renewal, which could be easily adapted to encourage further electrification, if the pilots' result confirm the expectations. This is also the case for pilot improvements in the quality of service, which could be scaled-up, if successful, in the context of the new urban mobility plan, and for the demand management plans in major working places.

### Stakeholders.

Will project design include the participation of relevant stakeholders from:

[civil society organizations](#) (yes  /no )

[indigenous peoples](#) (yes  /no )

### 53. **Government:**

- *Ministry of Industry, Energy and Mines (MIEM)*. The national government is leading the project, through the National Directorate of Energy (DNE, Ministry of Industry, Energy and Mines (MIEM)) and MVOTMA. MIEM is actively implementing the national energy strategy to increase the share of renewables, and electrification in the area of transport.
- *Ministry of Housing, Spatial Development and Environment (MVOTMA)*. The Climate Change Division of MVOTMA is responsible for the development and implementation of the government's climate change mitigation strategy.
- The Ministry of Economy and Finance (MEF) and the Ministry of Transport and Public Works (MTOPE), will be involved in the project mainly through their participation at the Interinstitutional Group on Energy Efficiency in Transport, set up two years ago. Both ministries should facilitate the revision of the current system of subsidies, incentives to fleet renewal, and technical approval for circulation of new models of vehicles on Uruguayan roads.
- *Municipality of Montevideo (IM)*. IM acts as the public transport authority in Montevideo, and has a major role also for metropolitan (suburban) services. IM has been implementing a sustainable mobility plan since 2010 (with some actions in the previous year), with the support of BID, although with mixed results. The revision of the plan is expected to be launched in the next months, providing an excellent framework for the implementation of the GEF project.
- *Public electric utility (UTE)*. Administración Nacional de Usinas y Trasmisiones Eléctricas (UTE) is the public utility providing electric power in Uruguay. It is actively implementing the government's strategy for the expansion of renewables, and see transport as a particularly suitable sector to expand its electricity market and to solve part of the usual grid problems associated with renewables (variability, lack of demand at night...). UTE is also managing its own fleet of electric vans, and would provide its technical and regulatory expertise to the project and support the operators involved in the pilots.

54. **Public Transport companies:** Five companies provide public transport services in the cities (and also in the metropolitan area):

- CUTCSA
- Raincoop
- COMESA
- UCOT
- COETC.

55. All of them have expressed their interest in participating in the project, including the operation of one electric bus in each company's lines. The companies are very different in size (CUTCSA accounting for more than 60% of the total public transport market), legal structure (including cooperatives, private companies, and a particular confederation of bus co-owners), and corporate culture. This will provide a unique opportunity to address the variety of barriers to the electrification of public transport and to the improvement of service quality.

56. **Civil society organizations:** The project intends to involve different NGOs at the local and national level, such as *Red Uruguaya de ONGs Ambientalistas* y el *Centro Uruguayo de Tecnologías Apropriadadas* (CEUTA).

### **Gender Equality and Women's Empowerment.**

Are issues on [gender equality](#) and women's empowerment taken into account? (yes  /no .

57. Gender issues are addressed in the project in two directions: regarding transport users and regarding transport jobs. The differences in urban mobility needs between men and women have been well documented in many cities; they include questions such as differences in the relevance given to various traits of the transport experience (comfort, travel time, vehicle design, information, affordability, reliability), system flexibility to adapt to chained trips, service

provision outside peak-hours, car availability. All these questions will become at the core of the project's pilots for improving the quality of service. Furthermore, the mobility plans in working centers will offer a unique opportunity for in depth characterization of gender inequality in urban mobility and major action needs. UNDP already explored gender differences and inequities in mobility in 2012 (*Políticas de tiempo, movilidad y transporte público. Rasgos básicos, equidad social y de género*), and this project will build upon those conclusions.

58. Concerning access to jobs, there are no formal gender barriers in the urban public transport sector, in accordance with the information provided by public transport operators. However, the presence of women remains extremely low in many jobs, such as management, drivers or workshop workers. In the context of quality improvement, there is a good opportunity to analyze in detail current practices and to develop active plans to materialize equal access to jobs.

### Risks.

Risks	Prob. & Impact	Response strategy
Technological: electric vehicles do not comply with the required operational characteristics.	Probability: low; impact: medium.	There are several models in the market, which fulfill the requirements of both, public transport operators (for buses) and delivery companies (for freight); some models have already been tested in Montevideo (for a few weeks), and are operation in other cities around the world. The response strategy is to involve all operators in Montevideo and potential vehicle providers to properly identify the technical requirements in the pilot lines before selection of the adequate vehicles, and to fully assess vehicles' performance in order to facilitate scaling-up after the project conclusion.
Financial: lack of adequate financing schemes, due to high upfront costs of electric vehicles	Probability: medium; impact: medium	Current estimates confirm that higher initial costs are compensated with lower operational costs during the vehicle lifetime. Alternative financial mechanisms would be developed within the project and make available to operators.
Policy: Changes in policies: national energy policy making electricity less attractive compared to fossil fuels; local transport policy favoring car use...	Probability: very low; impact: high	Current policies enjoy wide support, and changes are unlikely. As the project is developing different strategies, these changes could be addressed by increasing the focus on those components compatible with the policy changes.
Social: lack of acceptance of new measures, resulting in no progress in the share of public transport and soft modes.	Probability: medium; impact: high	In-depth knowledge of users' expectations will be gathered (IM is planning a household survey; mobility plans will include interaction with users...), minimizing these risks; alternative measures can be developed and implemented if needed, based on this knowledge.
Cultural: lack of involvement of key stakeholders, reluctance to change	Probability: low; impact: medium	Stakeholders are fully engaged at this stage. If there are changes to this, further work would be needed with skeptical stakeholders, including evidence of similar experiences in other cities. The number of stakeholders in the project facilitates to look for alternatives, in case one particular stakeholders withdraws its support.

Economic: changes in the economic environment make public transport operators to adopt defensive strategies, reluctant to innovation	Probability: low; impact: high	The project detailed strategy and implementation will be developed in close contact with public transport operators; the diversity of public transport operators make it possible to move forward, even if a few of them do not continue in the project.
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### Coordination.

59. There are a number of GEF- financed projects in Uruguay currently under implementation or in the approval process, which could offer some synergic opportunities with this proposal:

- *GEF* project #5207: Uruguay's First Biennial Update Report (FBUR). This project has got CEO approval, and could provide coordination opportunities in terms of estimates and monitoring tools of CO2 emissions from transport.
- *GEF* project #4909. Stabilizing GHG Emissions from Road Transport Through Doubling of Global Vehicle Fuel Economy: Regional Implementation of the Global Fuel Economy Initiative (GFEI). This project has received CEO endorsement. Several countries in the region (including Peru and Brazil) are participating; although Uruguay is not one of them, there could be scope for cooperation. The GFEI project is developing fuel efficiency policies, which include some of the measures considered in the component 1 of this proposal: monitoring of vehicle fuel efficiency, ecolabelling, and taxation.
- UNDP has recently submitted to GEF one proposal for the preparation of the Second Biennial Update Report (BUR) of Uruguay to UNFCCC, and one GEF/UNDP project for the preparation of the fourth national communication of Uruguay to UNFCCC is already under way. It is envisaged that some synergies could be developed between the proposal and these two projects, based on the impact on urban transport on Uruguay's GHG emissions.

60. In the context of GEF's Sustainable Cities Integrated Approach Pilot program, a network of cities is being put in place, championing for a sustainable approach to urban challenges. During the preparation of the project document, the possibility of establishing some involvement of Montevideo with the GEF network of cities will be explored.

### Consistency with National Priorities

The project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes  /no  ).

61. The project is consistent with the national and local priorities stated in different plans and reports: reduction of GHG emissions, improved energy efficiency, further growth on renewables, encouraging sustainable modes in urban mobility, and better integrating spatial development and transport policies:

- Biennial Update Report (BUR). BUR includes some on-going or planned measures in the transport sector, such as public transport fleet renewal, promotion of active urban transport or the implementation of a new traffic control center in Montevideo.
- Intended Nationally Determined Contributions (INDC). This document aims at a reduction of the intensity of CO2 emissions compared to GDP of up to 40%, if access to the necessary additional means of implementation are provided, inter alia in the transport sector.
- National Climate Change Plan (*Plan nacional de respuesta al cambio climático, 2010*). The project is consistent with the Plan's guidelines for the transport sector: to promote energy efficiency, and to support public transport.
- Energy strategy. This strategy, set in place in 2008 (*Política Energética 2030*), has successfully reduced the country's dependence on fossil fuels, and increased the relevance of sustainable sources of energy (hydropower, wind) in the country primary energy matrix, which in 2016 should account for more than 50% of the primary energy matrix.

- Energy efficiency plan (Plan nacional de eficiencia energética, 2015-2024). It includes the implementation of new technologies in transport.
- Montevideo Sustainable Mobility Plan, approved in 2010. The plan includes some strategic guidelines fully aligned with the proposal, including the improvement of public transport quality, and has already achieved some critical milestones, such as the implementation of an integrated e-ticketing system, and paid parking zones. However, the implementation of new priority corridors (BRT) have not achieved the expected results. Revision and update of the plan will be started in the next months.
- Montevideo Spatial Planning Guidelines (*Directrices Departamentales de Ordenamiento Territorial y Desarrollo Sostenible de Montevideo*), including guidelines on transport, such as its integration with land use and urban development policies, and the improvement of energy efficiency and multimodality.

### Knowledge Management

62. The objectives of knowledge management (KM) in this proposal include (i) sharing and providing access to the knowledge generated by the project, (ii) networking with other projects and initiatives in order to exchange experiences, and (iii) incrementing the impact of the project. Considering the relevance of innovative actions within the project, proper KM is an opportunity to strengthen the project's delivery potential.
63. KM plans will be detailed during project preparation; nevertheless, three main actions can be identified at this stage: (i) development of a knowledge platform within the project website, (ii) networking activities with urban transport projects and organizations in the region, with a focus on electric mobility and institutional empowerment; (iii) development of a community of practice with transport operators.
64. The knowledge platform within the project website will serve as a repository of technical information related to the project contents, with a focus on electrification of public transport and institutional empowerment and reform; a screening of related projects, implementation experiences and research will be conducted, with a focus on the particular priorities of this proposal. Key documents will be presented with digest notes to facilitate their use by the relevant local stakeholders. As the project progresses, lessons learned and key technical materials will be included in the platform, making them accessible to practitioners, professionals and the public at large. The knowledge platform is also relevant for the freight delivery pilot, as effective replication will require reaching out and mobilizing a good number of companies active in this sector.
65. Considering the large number of urban transport projects in the region and in the rest of the world, project networking has an enormous potential to provide advice, and experience/knowledge sharing for the project team and other stakeholders. Networking efforts will be developed at two levels: project-to-project (through a screening of similar on-going projects and selection of those closer in its innovative approach to this proposal) and project-to-communities (getting into contact with key transport-related organizations active in the region, such as EMBARQ, ITDP, etc.).
66. The proposal intends to develop actions with a variety of stakeholders. Three particular communities of practice can be identified at this stage: public transport operators, transport managers at major working centers, and civil servants working in the areas of transport, energy efficiency, and climate change mitigation. These communities of practice can be supported by the project through training and professional coaching activities, provision of technical materials, and other activities. This is particularly relevant for transport managers in charge of the green corporate mobility management plans within component 3, as they will require substantial support from the project team in order to succeed in the preparation and implementation of the mobility plans in the four pilot working centers.

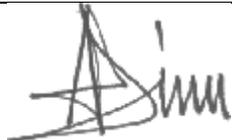
**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. GEF OPERATIONAL FOCAL POINT ENDORSEMENT LETTER ENDORSEMENT O ON BEHALF OF THE GOVERNMENT:**

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Alejandro Nario Carvalho	National Director of Environment	MINISTRY OF HOUSING, LAND PLANNING AND ENVIRONMENT	03/08/2016

**B. GEF AGENCY(IES) CERTIFICATION**

**This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation under GEF-6.**

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Adriana Dinu UNDP-GEF Executive Coordinator		July 20, 2016	Marcel Alers UNDP GEF Principal Technical Advisor	(212) 906-5532	<a href="mailto:marcel.alers@undp.org">marcel.alers@undp.org</a>