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**Annotated Project Document template for nationally implemented projects
financed by the GEF/LDCF/SCCF Trust Funds**

Project title: Towards a sustainable and efficient urban mobility system in Uruguay		
Country: Uruguay	Implementing Partner: Ministerio de Industria, Energía y Minería (MIEM, Ministry of Industry, Energy and Mining)	Management Arrangements: National Implementation Modality (NIM)
UNDAF/Country Programme Outcome: 1.1 The country has strengthened its capacities and institutional framework to ensure the preservation of the natural resources including water, echo systemic services, pollution prevention and generation and sustainable use of energy, promoting local development and creation of livelihood 1.3 The country has strengthened its capacities for mitigation and adaptation to climate change, as well as its disaster resilience.		
UNDP Strategic Plan Output: 1.1 and 1.5		
UNDP Social and Environmental Screening Category: Moderate	UNDP Gender Marker: 2	
Atlas Project ID/Award ID number: 00098508	Atlas Output ID/Project ID number: 101784	
UNDP-GEF PIMS ID number: 5802	GEF ID number: 9480	
Planned start date: October 2017	Planned end date: September 2021	
LPAC date: September 2017		
Brief project description: The project aims at empowering the relevant stakeholders in the urban transport sector to steer a strategic transition towards low-carbon mobility for passengers and freight. The project will test the effectiveness of an array of innovative policies and measures and will launch a reform process to establish an innovation-friendly environment for urban transport policy. The project will facilitate the reform of the current framework of urban transport regulations and incentives, with a focus on public transport quality and promotion of non-motorized modes, the adoption of electric vehicles in the public transport and urban delivery sectors, closer cooperation among authorities and relevant agents and appropriate monitoring systems of transport GHG emissions. It is expected that the project will provide direct emission savings of at least 114,930 t CO2 in 10 years, and consequential savings of at least 166,441 t CO2 in 10 years after project completion.		

FINANCING PLAN		
GEF Trust Fund <i>or LDCF or SCCF or other vertical fund</i>	USD 1,721,233	
UNDP TRAC resources	USD ---	
Cash co-financing to be administered by UNDP	USD ---	
(1) Total Budget administered by UNDP	USD 1,721,233	
PARALLEL CO-FINANCING <i>(all other co-financing that is not cash co-financing administered by UNDP)</i>		
UNDP	--	
National Government (MIEM)	USD 518,500	
National Government (MVOTMA)	USD 340,000	
Local Government (IM)	USD 16,600,000	
Public Transport Operators (PTO)	USD 1,424,000	
UTE	USD 1,155,600	
(2) Total co-financing	USD 20,038,100	
(3) Grand-Total Project Financing (1)+(2)	USD 21,759,333	
SIGNATURES		
Signature: print name below	Agreed by Government	Date/Month/Year:
Signature: print name below	Agreed by Implementing Partner	Date/Month/Year:
Signature: print name below	Agreed by UNDP	Date/Month/Year:

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LIST OF ACRONYMS AND ABBREVIATIONS

AUCI	Agencia Uruguaya de Cooperación Internacional
CPD	Country Programme Document
EV	Electric Vehicle
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
HH.RR.	Human Resources
IM	Intendencia de Montevideo
INE	Instituto Nacional de Estadística, Uruguay
MIEM	Ministerio de Industria, Energía y Minería, Uruguay
MSP	Medium Sized Project
NMM	Non-Motorized Modes (mainly walking and cycling)
MVOTMA	Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, Uruguay
MRV	Measuring, Reporting and Verification
PIF	Project Identification Form
PIR	GEF Project Implementation Report
PM	Project Manager
PMU	Project Management Unit
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
PT	Public Transport
PTA	Public Transport Authority
PTO	Public Transport Operator
STAP	GEF Scientific Technical Advisory Panel
SOV	Single Occupancy Vehicle
SUMP	Sustainable Urban Mobility Plan
TS	Technical Specialist
UNDAF	United Nations Development Assistance Framework
UNDP-GEF	UNDP Global Environmental Finance Unit
UTE	Administración Nacional de Usinas y Transmisiones Eléctricas

II. DEVELOPMENT CHALLENGE

Development challenge

1. Uruguay stands out in Latin America as an egalitarian society and for its high per capita income, low level of inequality and poverty and the almost complete absence of extreme poverty. Uruguay occupies the top spots in the region in terms of various measures of well-being, such as the Human Development Index, the Human Opportunity Index and the Economic Freedom Index. In 2015, the national gross per capita income stood at US\$15,720, according to the Atlas method. The annual average growth rate has been 4.8% between 2006 and 2015 (52.4% total growth), and 5.7% between 2006 and 2012 (39.7% total growth)¹.

2. Economic growth has not been coupled with a significant increase in total greenhouse gas (GHG) emissions, which reached 34,238 kt CO₂eq in 2012, a mere 0.6% increase compared to 2006 levels. However, emissions growth is more relevant for CO₂ (the most relevant GEI from the energy sector and particularly from transport): 30.8% or an annual average of 4.6%, from 6,648 to 8,694 kt in the same 2006-2012 period. The contribution of transport within the energy sector emissions has increased, at a small pace between 2006 (39%) and 2012 (40%), and more significantly afterwards, reaching a share of 55% in 2015 and with prospects to account for more than 60% of energy emissions in the next decade² (). Transport CO₂ emissions have increased from 2,277 kt in 2005 to 3,284 kt in 2012 and to 3,502 kt in 2015, a 44.3% and 53.8% growth, respectively.

3. The estimates of GHG emissions provided annually by the Department of Montevideo (*Intendencia de Montevideo*, IM), based on the population living in the area³ show an increase of 43% in the transport share of CO₂eq emissions between 2006 and 2014, reaching 1,383 kt. This figure is quite close to the estimate based on fuel sales in the Department (1,389 kt). The mobility survey completed in 2009 (*Encuesta de Movilidad del Área Metropolitana de Montevideo*) provides information to estimate that personal mobility in Montevideo possibly accounts for 29% of total fuel consumption (the rest being explained by interurban travel and freight), with a car/bus emission split of 82%/18%. Since then, the share of cars has increased up to 84% in 2016, whereas the number of bus trips has hardly changed.

4. Population and mobility growth is higher in the peripheral departments outside Montevideo (Canelones and San José). They account already for one third of total urban transport GHG emissions in the metropolitan area, and the car share of emissions in the peripheral departments increased from 82% in 2009 to 86% in 2016. In the absence of additional action, it would be reasonable to assume that CO₂ emissions from urban mobility in Montevideo and its metropolitan area will keep growing as a result of the following drivers:

- Population growth. Although the government foresees that the population in Montevideo will stabilize in 2018⁴, the metropolitan departments of Canelones and San José are expected to keep growing at annual rates over 1%, resulting in an average metropolitan growth of 0.4% annually.
- Decentralization. As population growth takes place in areas outside the core city, trip distances would be expected to grow, making population more dependent on motorized transport modes.
- Economic growth. Although at lower rates than the over 7% GDP growth peak in 2010, the economy keeps growing at a higher rate than the population. Growth in disposable income is typically strongly correlated with car ownership rates: motorization has grown at an average over 7% annually between 2005 and 2014. Economic forecasts for Uruguay suggests an annual growth rate of 1.6% in 2017, 2.5% in 2018, and 3.7% in 2019⁵.

5. Other transport modes can only provide limited competition to car use. There are scant restrictions to car circulation and parking, except in the small *Ciudad Vieja* district. Travel times between some specific origins and destinations (from the 2009 mobility survey) were significantly shorter for trips made by car than by public transport in 76% of the cases analyzed, and in 54% of them, travel time by bus was more than 50% longer.

¹ World Bank (2017). Accessed at <http://www.worldbank.org/en/country/uruguay/overview>

² MIEM (2014): Estudio de demanda: escenarios.

³ IM (2016). Inventario de emisiones de efecto invernadero 2014. Accessed at <http://www.montevideo.gub.uy/sites/default/files/biblioteca/inventario2014.pdf>

⁴ INE (2013). Estimaciones y proyecciones de población (revisión 2013).

⁵⁵ World Bank (2017). *Global Economic Prospects*.

6. This gap in the quality of mobility conditions between cars and public transport is disproportionately suffered by those social groups without access to cars: the lower income tertiles (the share of car jumps from just 28% in the lower tertile to 42% in the intermediate tertile and to 64% in the higher tertile) and women (the modal share of car for women is 25%, 13 percentage points lower than the car share for men)⁶. The gender gap in mobility conditions is likely to further increase, with many women facing increasing distances and travel times, and with growing pressure to dedicate a significant part of their income to gain access to car use.

7. The development challenge can therefore be described in a nutshell as a mobility system with increasing dependency on high-carbon options and a pervasive gender and social mobility gap.

Barriers to change

8. For the analysis of the development challenge, three different levels of causes can be distinguished: immediate causes, underlying causes and root causes. Two immediate causes can be identified: a conservative management attitude within the transport system, and widespread acceptance of the privileges of car users, in spite of their consequences in terms of environmental deterioration and social and gender exclusion (for those without a car).

9. Conservative management has been successful in keeping public transport prices low, but it has been unable to curb steady car-use growth. The policy of subsidies, and particularly the fuel subsidy (*fideicomiso del gasóleo*) introduced in 2006, was initially successful in reversing the decline in patronage (ticket sales increased more than 30% in 2007 and 2008, compared to the 2003 rock bottom), but ticket sales have stagnated afterwards, and even declined slightly since 2014, showing the limits of this management approach. Furthermore, the subsidy concept, linked to actual gasoil consumption, does not encourage fuel efficiency from public transport operators (PTO). The resistance to change is obvious in a variety of areas, from the controversial implementation of new strategic concepts (such as the new PT corridors and interchanges proposed by the Urban Mobility Plan in 2010) to the low share of employed women in the sector (just 16% in 2016 for the main PTO- although up from 12% in 2010⁷).

10. As for the social divide in the use of transport modes, it is reflected in the coexistence of two policy silos: one implementing sustainability policies, but reaching in practice a dwindling part of the population, and another keeping the traditional approach to traffic facilitation, dealing with the growing numbers of cars on the city's streets; the development challenge cannot be successfully addressed under this paradigm.

11. Four major underlying causes can be identified at the basis of the immediate causes mentioned above: (1) a socioeconomic environment of sustained economic growth, urbanization and growing personal mobility; under this framework, there is a growing mobility market, and conservative public transport stakeholders can be comforted by not seeing the number of their passengers decreasing, even if they are losing market in relative terms; (2) Technology; there are no incentives to introduce relevant technological innovations in the transport system, as it is the case for e-vehicles; on the contrary, most stakeholders, in public transport and in other modes, feel comfortable with the use of familiar and well-proved technologies; (3) Pervasive quality gap between carbon-intensive and sustainable transport modes, discouraging modal change; the quality gap is not only the result of lack of improvement in the quality of public transport and non-motorized modes (NMM), but also the effect of lack of restrictions to the user of cars in the city; (4) deeply rooted prejudices among citizens, considering car use as the most preferable mode, even among those without access to it, and supporting its current privileges in the mobility policy; this is particularly relevant for trips to the workplace, which account for 32 % of all trips⁸.

12. A few root causes deserve particular attention: The institutional and governance framework for sustainable development has made impressive progress in establishing national strategies on climate and energy efficiency, but its practical impact on the transport sector (including urban mobility) has been modest, highlighting the need for strengthening this framework in terms of resources, monitoring and evaluation tools and formalization of the legal and institutional structures. The lack of an updated regulatory framework in the transport sector, promoting clean technologies and innovative approaches, and the insufficient capacity of inspection and control over public transport operators by the relevant administrations. A technical culture dominated by the traditional traffic engineering paradigm encourages street design and management focused on facilitating car flows, and a narrow implementation of sustainable alternatives limited to some areas of *Ciudad Vieja*. Finally, widespread acceptance of car hegemony

⁶ UNDP(2013). Políticas de tiempo, movilidad y transporte público: Rasgos básicos, equidad social y de género.

⁷ Other operators report even lower figures, of around 7%.

⁸ UNDP (2013). Políticas de tiempo, movilidad y transporte público: Rasgos básicos, equidad social y de género.

among significant stakeholders and large groups of the citizenry. This attitude is particularly noticeable in major companies and working centers, as there are few, if any, commitments from companies and public institutions, as well as from, their executives and workers' associations to encourage sustainable mobility solutions for their workers' and business trips.

III. STRATEGY

Theory of Change for this project.

13. The project's vision is to set up an effective transition towards an inclusive, adaptive, efficient and low-carbon urban mobility system. This transition will be initiated in the metropolitan area of Montevideo and should serve as a model for its replication in other cities in Uruguay⁹. It is expected that the project will provide direct emission savings of at least 114,930 t CO₂ in 10 years¹⁰, and consequential savings of at least 166,441 t CO₂ in 10 years after project completion..

14. This vision is achieved through action on the root causes identified in the previous section. The project will provide institutional and capacity-building support, learning from the positive experience of previous UNDP projects in the country (notably, the Uruguay Wind Energy Programme, UWEP). The project management unit (PMU) is seen as a catalyzer of a capacity-building and networking effort addressing the main institutional stakeholders involved. The institutional empowerment will be particularly relevant for the development of new regulations supporting quick adoption of technological innovations (such as electric mobility), and facilitating the role of the local government (IM) as a public transport authority (PTA) enabled (technically and institutionally) to steer the transition of the public transport system towards higher quality standards. The project is also expected to provide the framework for the revision of current practice, moving away from the current prioritization of car traffic. The project is also expected to facilitate cultural change, with two initial targets: short-distance trips and daily trips to work. The latter should be facilitated by action with public and private employers, executives and workers' associations to establish incentives to sustainable mobility to working centers.

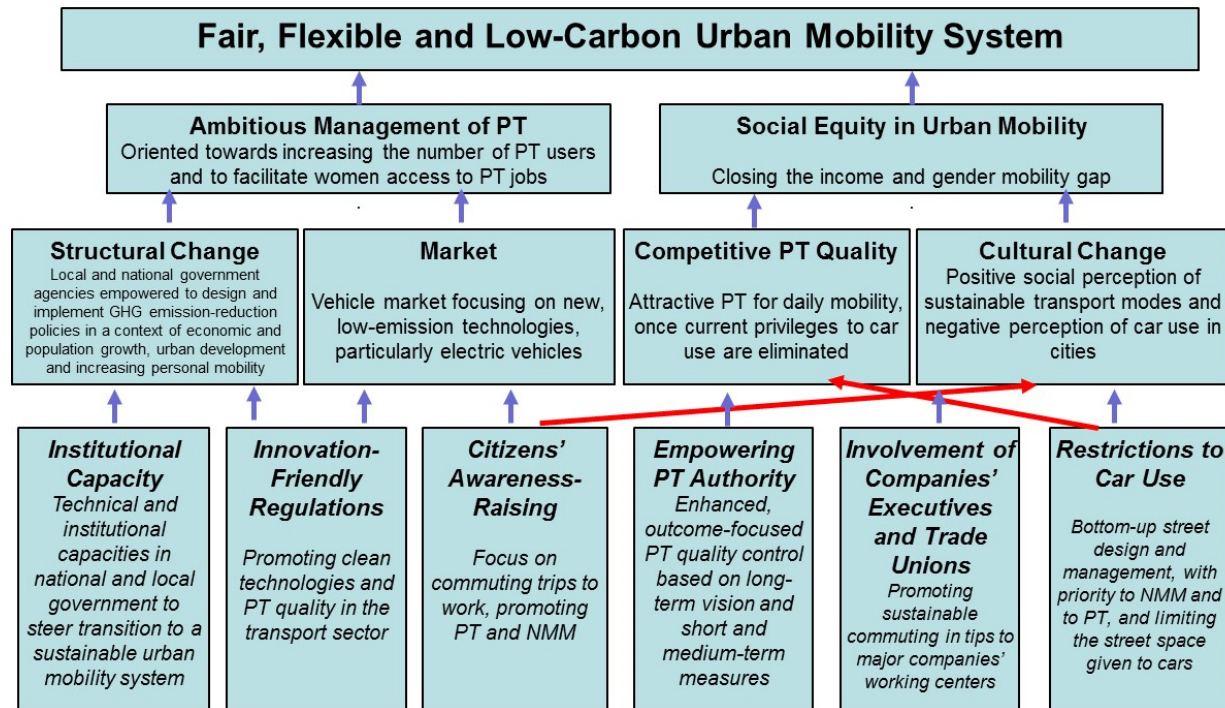


Figure 1: Theory of Change Diagram

⁹ There are sixteen cities in Uruguay with more than 20,000 inhabitants, outside the metropolitan area of Montevideo. A reasonable target would be to achieve replication activities in at least three of them.

¹⁰ 10 years is the estimated life-time of the electric vehicles involved in the project.

15. Action on these root causes is expected to impact on the four underlying causes identified in paragraph 11, as follows. Strengthened institutions should be better positioned to generate and implement integrated policies aiming at reducing GHG emissions from transport with convenient mobility alternatives. Consumers are expected to become increasingly interested in alternative vehicle technologies, such as electric vehicles (EV), as a result of changes in regulation, and in their own perception of mobility. Cultural change would be made possible by addressing civil society, public institutions, major companies, individual citizens and professionals engaged in street design and management. The competitiveness of public transport compared to cars will be increased by an empowered public transport authority, with capacity to play a more decisive role in the inspection and control of public transport quality, in collaboration with PTOs (as described in the *Stakeholder engagement* subsection under section IV below), and walking and cycling will gain relevance among decision-makers, technicians and citizens.

16. The immediate causes of high-emitting mobility in Montevideo will be dramatically transformed. PT stakeholders will share a common vision to gain passengers from cars, looking for every opportunity to increase the value-for-money they provide to PT customers. An ambitious, customer-oriented management is more likely to give more attention to social demands beyond transport quality, and therefore to align the public transport sector with the general economy in terms of access of women to employment opportunities and customizing their services to the needs of women and a variety of social groups. This PT management paradigm should also be more receptive to the adoption of innovations. The current social gap between car users and the rest of the citizens should be closed by cultural change and the reduction of the quality gap between of car mobility and sustainable transport modes.

The project approach

17. There is wide consensus on the difficulties faced by local and national governments in their efforts to promote sustainable mobility¹¹. These difficulties do not primarily stem from lack of adequate policy and technological options, but from (1) the intricacies of transport governance in cities, with competencies shared among a variety of technical agencies and governance layers, (2) a complex network of stakeholders most of them reluctant to cooperation and pursuing their own narrow objectives, (3) difficult implementation of innovations, even if these innovations are well known and have been successfully tested in other cities, and (4) the need of substantial awareness building among stakeholders and citizens at large, followed by significant changes in mobility behavior.

18. The project addresses these questions in an integrated way. It aims at building up an *efficient, low-carbon urban transport model in Montevideo*. This model will be subsequently replicated in other cities, by combining an institutional pillar (committed public institutions and stakeholders), a technological (and policy) pillar (implementation and assessment of innovative technologies and concepts), and promoting a collaborative planning environment. Barriers are expected to be removed through demonstration (on the use of EV), and other cities in the country will be reached through dissemination activities. There is wide evidence on the impact that successful pilots can have on urban mobility policies, as shown in many UNDP/GEF projects, and similar programs from other institutions, as the well-known CIVITAS initiative of the European Union, started in 2002 and reaching thus far 89 cities¹². The project will provide access to these experiences in order to facilitate acceptance and replication. The approach pays particular attention to the regulatory environment, so that a set of revised incentives, better aligned with GHG reduction objectives and with the overall long-term mobility vision, can be developed.

19. Although focusing on transport, the project approach is consistent with that of the GEF Sustainable Cities Integrated Approach Pilot Program (SC-IAP Program), one of the three pilot programs approved in June 2015, and included in the GEF-6 replenishment. The program supports comprehensive, evidence-based planning processes in cities in eleven countries around the world, with strong emphasis on replication potential., and is establishing a Global Platform for Sustainable Cities, so that knowledge can be shared among participating and third cities. Urban mobility plays a central role within the integrated approach encouraged by the program, and this project is expected to actively participate in the transport conversation within GPSC.

20. Recent experience in the implementation of the Sustainable Urban Mobility Plan (SUMP) in Montevideo confirms the relevance of the barriers ahead to sustainable mobility reform: the successful implementation of the new pricing system has been shadowed by a controversial deployment of the new network concept, based on the

¹¹ For example, Banister, D. (2008). The sustainable mobility paradigm. *Transport Policy*, 15(2), 73-80.

¹² www.civitas.eu

implementation of some priority corridors (BRT) and requiring substantial modifications in the existing lines and bus exploitation routines. Contrary to the SUMP's expectations, public transport has been unable to gain new passengers, and the car share in daily trips has continued to grow.

21. Learning from recent experience, the project aims at building up a collaborative environment, putting together national and local efforts, getting stakeholders fully involved, putting citizens' needs at the core of the various schemes, and integrating the technological, regulatory and behavioral levels. Successful cities (Bogotá, Curitiba...) have applied this integrated approach, getting stakeholders out of their comfort zone, questioning business-as-usual approaches and passive attitudes, and engaging the transition towards low-carbon mobility.

22. The project will contribute to UNDAF/CPD outcomes 1.1 (The country has strengthened its capacities and institutional framework to ensure the preservation of the natural resources including water, eco systemic services, pollution prevention and generation and sustainable use of energy, promoting local development and creation of livelihood) and 1.3 (The country has strengthened its capacities for mitigation and adaptation to climate change, as well as its disaster resilience). Additionally, the project will contribute to UNDP Country Programme Output 2 (Strategies, policies and plans (national/departmental/sectorial) formulated and applied for the adaptation and mitigation of climate change and disaster risk reduction). The project is aligned with UNDP Strategic Plan Outcome 1 (Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded). It will also contribute to the achievement of Sustainable Development Goals 7 (Affordable and Clean Energy), 9 (Industry, Innovation and Infrastructure), 11 (Sustainable Cities and Communities) and 13 (Climate Action).

Innovation in the project

23. Innovation is essential for the project 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; (ii) public transport quality, implementing an innovative participatory approach and learning from the experience of the current urban mobility plan (2010); (iii) mobility management, with innovative tools (mobility coaching, transport coordinators...) developed in other countries being adapted to local conditions ; and (iv) a multilevel governance approach, exploring new collaborative models among the stakeholders with responsibilities in urban mobility (including energy, industry, infrastructure, environmental and regulation aspects).

24. In fact, some of these innovations are not new. However, past attempts to implement them (e.g. the e-bus test conducted for a few weeks in 2014, or the PT network reform proposed by the Urban Mobility Plan) have not succeeded. The originality of the project's approach lays in the attempt to provide an integrated, collaborative framework for the stakeholders to act together and move forward from pilots to general implementation.

Key assumptions

25. The project's approach is based on various general assumptions:

- (1) A stable and growing economic environment, which makes it possible to continue to dedicate public resources to the improvement and affordability of public transport. National and World Bank prospects on economic trends remain quite optimistic for Uruguay. GDP growth in 2016 was 1.5%, higher than expected after the slowdown in the economy in 2015; growth rate prospects are 2.55% in 2017 and in 2018¹³.
- (2) The share of renewables in the energy matrix keeps growing. Existing energy plans (e.g. *Política Energética Uruguay 2030*, established in 2008), favor further development of renewables, as a consequence of the strong national consensus of all major political parties (*Comisión Multipartidaria de Energía, 2010*) and stakeholders, making e-mobility competitive from a carbon perspective on a "well-to-wheel" basis. This is also the case for reducing climate change emissions: a National Policy on Climate Change has been recently approved by national Government, and implies a strategic framework for the development of the project.
- (3) A coherent local policy on mobility and land use, further developing the spatial and transport model laid out in the Land Use Plans (*Plan de Ordenamiento Territorial de Montevideo* (2006) and *Directrices Departamentales de Ordenamiento Territorial y Desarrollo Sostenible* (2012)), and the 2010 Urban Mobility Plan.
- (4) A collaborative, consensus-driven approach to mobility shared by all the institutional stakeholders: the various ministries, and the Department of Montevideo. Furthermore, there are positive signs of cooperation from the other 2 departments in the metropolitan area (Canelones and San José), as they are expected to join the

¹³ BCU (2017). <http://www.bcu.gub.uy/Estadisticas-e-Indicadores/Encuesta%20de%20Expectativas%20Economicas/iees06i0517.pdf>

integrated ticketing system (STM) and are already involved in the new mobility survey, launched in 2016. This is an excellent basis for increasing the consensus on disruptive mobility changes.

- (5) Steady progress in the development, availability and cost-abatement of electric vehicles. Evidence from, among others, the UITP ZeEUs¹⁴ project, shows increasing availability and affordability of electric public transport solutions, including buses and trolleys. Urban logistics are also enjoying increasing availability of hybrid and electric vans, in accordance with results of the EU Research Project “FREVIEW”¹⁵. In Uruguay, UTE is actively engaged in the deployment of charging points for electric vehicles.
- (6) Decreasing social and political support to car use in cities. The trend to support restriction measures to cars in cities is accelerating as a result of awareness raising in the urban environment, development of new technologies, expansion of alternatives like car sharing and prospects of automation¹⁶.
- (7) Increased attention to gender and social equity in urban mobility. There is growing concern about the fairness of existing urban transport systems¹⁷.

IV. RESULTS AND PARTNERSHIPS

Expected Results

26. 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 proactive 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. Total direct emission savings would reach 114.93 kt of CO₂. Consequential emission savings are estimated at 166.44 kt.

27. The project consists of four components, covering the institutional, technological, and replication dimensions necessary to sustain structural change as well as a final component on knowledge management and M&E.

28. The first component (policy framework for a low carbon transport system) will develop the adequate context (covering the institutional and regulatory frameworks) 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, with two expected outcomes.

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(a) The first outcome will empower 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. It will incentivize the use of more efficient, low-emission vehicles combining:

- (i) alternatives for financing the structural transition towards to low carbon and clean air mobility, with 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) (Output 1.1). There are several existing tax regulations related to transport; specifically for buying new vehicles such as the global import tax (TGA), the internal excise tax (named IMESI), and the conventional value-added tax (VAT). As an incentive, in the light of the

¹⁴ <http://zeeus.eu>

¹⁵ <http://freview.eu>

¹⁶ E.g. David Metz (2015). Peak Car in the Big City: Reducing London's transport greenhouse gas emissions. Case Studies on Transport Policy.

¹⁷ http://www.cost.eu/COST_Actions/tud/TU1209

project, the TGA will be reduced to “zero” for the import of all categories of EVs in Uruguay. In addition, as introduced in Para.9 of the Prodoc., for motorized vehicles, there is a fuel subsidy (Fideicomiso del Gasóleo) which is linked to actual gasoil consumption. On the other hand, there are some incentives related to public transport pricing, such as subsidies for retired people and students, supported by Intendencia de Montevideo and the Ministry of Economy and Finance.

- (ii) effective implementation and monitoring of the regulations on eco-labelling, currently under development, as an effective tool to encourage road vehicle purchases towards the most efficient technologies available (Output 1.2). The Institute of Technical Norms of Uruguay (UNIT, by its Spanish acronym), has prepared an energy efficiency technical norm and its compliance of conformity for light motorized vehicles, which is the benchmark for the proposed EV eco-labelling. The Ministry of Industry, Energy and Mining, the public agency responsible for the implementation of the labelling scheme, and the National Regulating Agency (URSEA, by its Spanish acronym), will be in charge for designing and enforcing the eco-labeling regulation of the vehicles.
- (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 (Output 1.3). Due to the fact that In Uruguay there is no official measures related to second-hand battery collection and disposal for Lithium-ion powered-batteries, this output aims at creating the conditions to deal with this situation, as described in the Environmental and Social Management Plan of Prodoc (Annex G).
- (iv) empowering public administrations and public involvement in decision-making on transport emissions, through the development and implementation of a reliable and self-improving measurement, reporting and verification (MRV) system of mobility trends and their climate change and clean air impacts, and through the improvement of air quality measurement and monitoring system (Output 1.4). The government entity in charge of the proposed GHG emissions and air quality MRV system for urban transport will be the MVOTMA through the Climate Change Division and the National Environmental Directorate. Regarding the GHG emissions baseline, there is aggregated data on transport emissions, however there is no disaggregated information on the types of transport emissions, such as urban transport both: public and private. In that sense, the project aims at preparing data and estimations in public and private transport at a urban level, improving decision making capacity and the monitoring of that policies. In terms of air quality, there is a database from the National Directorate of Environment and the Intendencia of Montevideo from 2014.
- (v) strengthened coherence and convergent management between land use planning and transport and climate change mitigation policies, with appropriate coordination within existing structures, planning tools and strategies, (such tools and strategies should include regional and metropolitan approaches, as appropriate, as well as detailed planning instruments, i.e. “partial plans” and “urban projects”) building upon the privileged role of MVOTMA as the National Government's Ministry in charge of both, climate change and spatial planning issues (Output 1.5). The official entity, MVOTMA, will be the government body taking care of including land use measures into this project through the National Land Planning Directorate. This aims to develop an integrated urban land management- urban mobility-GHG emission approach by designing instruments, such as: methodologies, guidelines and indicators to inform land planning at local level. The sustainable public transport system will be a structural component of the Land Use Plans, given its impacts at the local and global levels.

(b).The second outcome will move one step forward, in order to accelerate the transition to low-carbon mobility at the urban level. Based on gathered baseline data on current modal share in Montevideo, the modal share of car trips (either as a driver or as a passenger) was 38% in City of Montevideo and 36% in the whole Metropolitan Area in 2009, and for public transport shares were, respectively, 41% and 38%. By 2015, since 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), current modal for the car share is likely to be higher today than it was in 2009. This situation brings up an opportunity for a thorough revision of current operational regulations and practices in urban public transport to define measures that put the user at the center of service provision in order to revert the expansion of private car use. This is a prerequisite for the adoption of car use limitations which are accepted by the public and is a also a complement to the future revision of the sustainable mobility plan.

The rationale to explain this outcome and the three following closely-interrelated outputs is that without the GEF, the technological transition to low-carbon mobility will probably progress at a much slower rate. Improving PT quality demands appropriate regulations and technical measures necessary to implement innovative transport demand management measures which are foreseen in the further outputs. Developments related to cultural change in transport operators, decision makers behaviors as well as on developing national capacities to EVs and other efficient transport measures, would not happen in the desired speed without GEF resources due to policy fragmentation and lack of clear competences and resources. This outcome will be achieved upon the success of the following three expected outputs:

- (i) Definition of key performance indicators (KPI) on the quality of public transport services. Such a KPI system would include indicators on fleet and vehicle characteristics, planned and actual service supply, information and communication with users, comfort levels and safety. A comprehensive KPI system is essential for supporting the public transport authority (IM) in its control and supervision of service provision by PTOs, to encourage PTO managers to identify priority areas for improvement within each company, to establish sound plans for attracting new users, and to support the development of more efficient regulations with incentives and disincentives to PTOs. The implementation of the new traffic control center (TCC) and its “Phase II” offer 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 traffic enforcement more effective (Output 1.6). The Traffic Control Center (TCC) is an online monitoring system already in operation controlling metropolitan private-vehicle flows through a system of remote video-cameras and traffic lights in real time (Phase 1). The next phase is to create the operating conditions to expand the control of the public bus fleet, where no GEF funds from this project will be allocated. Regarding the KPI, the top three indicators are:
- Full compliance with schedules (delays, average speed, etc.).
 - Improved information provided to users (including real-time information).
 - Comfort and safety.

To increase institutional capacity for this sort of innovative systems, the project will consult the reference published by the GIZ on: “Measuring Public Transport Performance”¹⁸.

- (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 (such as public service contracts and partnership agreements) 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 PTA (IM) and with the four PTOs in order to identify a quality plan to make services more attractive; this may require changes in the current legal framework (Output 1.7). For the Montevideo public transportation bus system, the existing fare scheme is twofold: the expanding use of the e-ticketing system (STM cards) and cash collected by the bus drivers at the point of arrival, including a system of discount fares for certain targeted groups such as students and senior citizens. In Uruguay, it is also important to note that the tariff structure for the whole metropolitan area of Montevideo are even for all routes; these are fixed by the departmental government together with the Labor Union of Public Transport and the PTOs.
- (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 with the new priorities of promotion of efficient and low-carbon technologies and

¹⁸ http://www.sutp.org/files/contents/documents/resources/B_Technical-Documents/GIZ_SUTP_TD9_Measuring-Public-Transport-Performance_EN.pdf should be referenced.

public transport use. These proposals will build upon international best-practice, and will be defined in a collaborative way with all the stakeholders. The proposed frameworks will also consider innovative PT options currently under consideration by IM, such as new PT corridors, interchanges and technologies (trolleybuses, opportunistic charging...), and will mainstream gender equality through several strategies, including measures to facilitate and increase a more convenient use of public transport by women, such as access to and interconnection between key places (e.g. schools, health centers) for a more efficient use of their time (Output 1.8). The proposed alternatives for financing the public transport systems analyzed during the PPG stage depend on the category of the EV. For public buses, it is considered the participation of the commercial banks through the use of existing lending green mechanisms such as fleet renewal credit lines, trust fund for public transportation, and leasing. For the electric vans, most likely will be leasing and the use of corporate conventional credit lines.

29. The second project component (demonstration of technological options in Montevideo) includes two pilots.

In Uruguay, there are already six electric charging stations in six private facilities. In addition, in the City of Montevideo there is one located in the Technological Laboratory of Uruguay, two loaders in the main building of UTE, and another 4 stations will be in operation soon downtown in the Joanico Street. In addition there is one station already installed in Maldonado and other 10 loaders located every 60 kilometers between the cities of Colonia and El Chuy, which are part of the electric route that covers all the coastal area from its western point (Colonia) to its eastern point (Chuy). 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. The electric utility (UTE) will be supporting this activity, providing the necessary assistance to the operators in the changes their depots may need to install the charging points.

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 allow TPOs to get acquainted with the new technologies and to assess the operational savings they provide, and which could 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 (Output 2.1). The proposed routes for testing the five E-buses during the 12-month period are along the two main town avenues in the City of Montevideo, i.e.: "Avenue 18 of July" and "Avenue Rivera". These two routes were selected because, currently, have the highest sale points of urban passengers in the whole metropolitan region. However, it is important to note that once the project elaborates a statistical sample, the E-buses will be mobilized to a less congested routes.

(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, house-maintenance services, medical and delivery companies in the metropolitan area willing to explore the advantages of electric mobility (Output 2.2). During the PPG, it was found that there is an ample offer of EV private dealers willing to participate in the project, in this sense Project Management Unit will arrange a bidding process to select the most convenient EVs for the purpose of the project under this output. In addition, a competitive process will take place to allocate the testing of the 6 EVs among interested companies.

30. (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) (Output 2.3). The proposed business models for financing the EV, in line with output 1.8, considers a variety of commercially-driven mechanisms. For public buses, lending from commercial banks through the use of existing lending mechanisms such as fleet renewal credit lines and leasing are most likely to be used. For the electric vans, the leasing mechanisms and the use of corporate conventional credit lines will be used.

31. The third project component addresses 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 consequential 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. The expected outcome of this component is to succeed in changing 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. This outcome is expected to be achieved through 4 outputs:

- (i) The successful implementation of so-called green corporate mobility management plans in four major working centers in Montevideo¹⁹. 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, enterprise van or bus services, and awareness raising on gender issues in in public transport and mobility among others²⁰; another area of attention refers to business trips, which can be optimized and at least be partially redirected towards sustainable transport modes (Output 3.1). Regarding the average commute time of labor force in the City of Montevideo, half of the people travel for at least 20 minutes, while a quarter share travels more than 40 minutes²¹.
- (ii) Increasing the number of non-motorized mode (NMM) users, through campaigns to the general public focusing on vulnerable social groups, such as children and teenagers, the elderly and also addressing gender barriers to walking and cycling. The approach will benefit from collaborative methodologies developed in other cities around the world²², and will focus on short-distance trips (Output 3.2). As part of the socially-oriented policy of the current administration, it is of greater importance to give priority to vulnerable social groups to enjoy the right to have spare time, like walking short distances for relaxation and riding a bicycle in many of city recreational areas.
- (iii) A project website, which should serve as a platform for dissemination, providing material for other 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, 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 throughout the lifetime of the project. The website will be sustained after the project completion through the information and technological systems of the ministries, MVOTMA and MIEM (Output 3.3).

¹⁹ At least two of the three ministries located in Ciudad Vieja: MTOP, MIEM (155 jobs), and MVOTMA, UTE headquarters (Palacio de la Luz) in Aguada district and the main offices of Intendencia de Montevideo (Palacio Municipal), in the Centro district.

²⁰ <http://www.mobilitymanagement.be>

²¹ "Políticas de tiempo, movilidad y transporte público: rasgos básicos, equidad social y de género" – PNUD Intendencia de Montevideo en base a encuesta origen-destino 2009.

²² Such as the STARS (<http://starseurope.org>) methodology.

(iv) Plans for replication of project measures in two other cities, the two metropolitan departments of Canelones and San José and their main municipalities. The rationale for choosing these cities is that both have more than 20,000 inhabitants, a formal urban transport system and with officially regulated routes. 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, tailoring them to their particular context and exploring with the national government possible incentives to encourage them to implement some of the measures tested in the project (Output 3.4).

32. The project consists of four components, covering the institutional, technological, and replication dimensions necessary to sustain structural change as well as a final component on knowledge management and M&E.

33. The fourth component is dedicated to project monitoring, evaluation and reporting. This component includes the preparation of audit reports and the terminal evaluation. The following Table summarizes the four components described above, as well as the outcomes and outputs of each component:

Table 1: Project components, outcomes and outputs

Project Objective: To promote an efficient, low-carbon transport model in Montevideo		
Project Component	Project Outcomes	Project Outputs
1. Policy framework for a low carbon transport system	Adequate institutional capacity and regulatory framework in place to foster low-carbon mobility options	1.1. Tax regulations and incentives promoting efficient, low-carbon and clean air transport options. 1.2. Implementation and monitoring of ecolabelling of vehicles. 1.3. Identification of available technologies and alternatives for regulation of battery re-use, recycling and disposal 1.4. National MRV system of GHG and other environmental impacts of urban transport, such as air pollutants and battery use and disposal. 1.5. Strengthened coherence and convergent management between land use planning and transport and climate change mitigation policies, with appropriate coordination within existing structures, planning tools and strategies.
	Modal share of public transport increased, and quality control improved	1.6. Definition of key performance indicators (KPI) for quality control of public transport services, supported by a new traffic control center 1.7. Identification of improvement measures (fares, information...) and development of quality control systems with public transport operators. 1.8. Alternatives to current regulations and incentives for financing the public transport system, including low-carbon and quality aspects
2. Demonstration technological options in Montevideo	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
3. Cultural change, dissemination and replication	Innovative policy packages developed, aiming at changing mobility behavior and	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.

	replicating innovative measures in other cities	3.3. Project web site providing a knowledge management platform to other cities. 3.4. Plans for replication of project measures in other cities.
4. Monitoring and Evaluation	Project level monitoring and evaluation is carried out	4.1 Project audits are conducted. 4.2 Terminal evaluation is conducted.

Partnerships

34. To be successful, the project needs to get a variety of stakeholders involved: institutional stakeholders, primarily interested in achieving the project overarching objective and achieving the necessary institutional and regulatory reforms; technological stakeholders, supporting the electrification component of the project (the most relevant one in terms of budget); stakeholders engaged in the quality of public transport provision and car-use, and stakeholders committed with the cultural change needed towards sustainable urban mobility.

35. Institutional partners include the ministries involved in the project (MIEM, MVOTMA) and the local government (IM)²³. The project will work with institutional partners primarily through the project management board. Two other key institutional partners (MTOPE and MEF) have been working with MIEM and MVOTMA at the Inter-institutional Group on Energy Efficiency in Transport, set up three years ago. This group should serve as a valuable support to project implementation, facilitating interaction with all the necessary governmental levels. Likewise, there is another group capable of contributing during the execution of the project: the *Consejo Consultivo del Transporte Colectivo Urbano de Montevideo*. This Council was established in December 2016 with the objective of improving the quality of the transport service in Montevideo. It is integrated by IM, the *Junta Departamental*, the *Defensoría de Vecinas y Vecinos de Montevideo*, the *Unión Nacional de Obreros y Trabajadores del Transporte* and the public transport companies. Finally, the broader context of the National Climate Change Response System, involving all relevant Ministries and local governments through the *Congreso de Intendentes* gives the Project another institutional partnership for its implementation.

36. Smooth interaction between the IM and the ministries will be critical for the project success, and the project will need to build up a fluent partnership with IM and its transport-related actions. It is worth noting that IM is deploying its Traffic Control Center and is engaged in the revision of its Urban Mobility Plan. A solid institutional partnership is crucial for the project approach, in order to empower IM in its leading role as public transport authority. There are a number of GEF- financed projects in Uruguay currently under implementation²⁴ or in the approval process, which could provide some additional support to strengthening this institutional partnership: UNDP has recently submitted to GEF one proposal for the preparation of the Second Biennial Update Report (BUR) of Uruguay to UNFCCC, building upon the experience of GEF project #5207 (Uruguay's First Biennial Update Report, FBUR). Considering the relevance of urban transport on Uruguay's GHG emissions, and the involvement of most of the institutional partners in all of them, it seems likely to gain mutual benefits from interaction among them.

37. The technological partners are relevant for the successful implementation of the pilots on electric vehicles. Most of these partners will enter the project as co-funders. UTE will facilitate the involvement of all interested parties, as vehicle manufacturers, charging point suppliers, and users in the fields of public transport supply and urban freight delivery. An *ad-hoc* group on electric mobility will be created within the project to facilitate smooth exchange among these partners. Existing knowledge (e.g. the current experiences of CUTCSA with one electric bus and UTE with 60 electric vans) will be shared within this group and serve to facilitate the implementation of the pilots. The contribution of technological stakeholders is crucial for the development of a regulatory framework supporting innovative mobility options, and accelerating the deployment of electric mobility solutions in Uruguay. Furthermore, some interaction with other GEF-funded projects with a focus on technology could be foreseen, as GEF project #4909 (Stabilizing GHG Emissions from Road Transport through Doubling of Global Vehicle Fuel Economy: Regional

²³ At this stage, Intendencia de Montevideo (IM) is the only local authority participating, as all the project activities will take place in the Department of Montevideo. Nevertheless, the other two metropolitan departments (Canelones and San José) and their main municipalities could get involved in future, at least for replication activities.

²⁴ Including UNDP/GEF Project 9739 “Building institutional and technical capacities to enhance transparency in the framework of the Paris Agreement”.

Implementation of the Global Fuel Economy Initiative, GFEI). This project has received CEO endorsement, and 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 measures such as monitoring of vehicle fuel efficiency, eco-labelling, and taxation.

38. IM and the four PTOs have a long interaction record. The project is expected to serve as a facilitator in this interaction, providing information, technical assistance and alternative quality-management proposals to speed up the adoption of more ambitious quality control targets and procedures, and opening up the discussion to the participation of NGOs active in the promotion of non-motorized transport modes: some of the existing participatory channels within IM (e.g. *Defensoría de Vecinas y Vecinos de Montevideo*) should facilitate their involvement.

39. Some of the key institutional partners (including MIEM, MVOTMA, IM, UTE) are expected to also serve as “living-labs” in the implementation of a cultural change in urban mobility, through the implementation of green mobility plans within their main working centers. This will require intense collaboration with those in charge of the existing mobility policies in these centers, as well as NGOs. Some of these NGOs, as well as IM, are already engaged actively in the promotion of non-motorized modes. The project is expected to build upon these initiatives, and to reach a wider public, in order to create a sustained partnership favoring sustainable transport and supporting restrictions in car use.

Stakeholder engagement

40. Besides the institutional and technological partners mentioned above, the following key stakeholders are participating in the project:

- Civil society organizations: The project intends to involve different NGOs at the local and national level, such as *Red Uruguaya de ONGs Ambientalistas* and *Centro Uruguayo de Tecnologías Apropriadas (CEUTA)*, and cycling associations, such as *Taller Autogestionario de Ciclismo Urbano (TACU)*.
- Other stakeholders relevant for the project include manufacturers of electric vehicles (Renault, BYD and Yutong have expressed their interest), freight delivery companies (a few companies, including Correo Uruguayo, MIRTRANS, SAMSUNG have been approached), particular governmental bodies (e.g. traffic police) and researchers and specialists on urban mobility issues, particularly from a social science perspective.

41. From the perspective of the project’s contents, the following stakeholders and social groups are particularly targeted, and would need specific communication channels with the project team:

- Public transport operators (PTO). The project proposals may have significant impact in their management practices, strategies and operations. PTOs are targeted by the project, regarding improvement of PT quality and deployment of electric vehicles. PTOs are expected to be fully involved in the project advisory committee, and a dedicated working group within the PSB is intended to deal with public transport issues within the project.
- Specific car user groups. It is expected to achieve some transfer from cars to other modes. Car users (and those aiming at becoming car users) are therefore targeted by the project, particularly those working in the centers included in project component #3. Although the project is not intended to make use of constraining measures, there is a need to properly identify those groups that could be more directly affected by the project, such as low-income workers with high travel times for commuting by public transport, or adults- and particularly women- with a need to combine commuting to work with other purposes (trip chaining).
- Users of other transport modes. Even if the project measures are intending to benefit these users, the possibility of negatively impacting some social groups cannot be dismissed in advance. Beyond participatory planning of measures, and monitoring of users’ satisfaction with the project, it seems necessary to set in place mechanisms for users to communicate their concerns with project’s activities.

42. PTOs should not have any problems in raising their concerns during the project implementation, as they will be participating in the relevant project working groups and in the steering board, and they already have fluent communication channels with IM. This is not the case for users with high car-dependency, particularly women struggling to combine working and household duties within their mobility patterns, low-income car users with poor accessibility to sustainable transport means and others²⁵. The project will set in place a variety of communication channels to be aware of their concerns and to react to them:

²⁵ Hernández, D. (2013). Políticas de transporte público y su efecto sobre la equidad. Avances y desafíos en la reforma del sistema de la ciudad de Montevideo. Buenos Aires: CLACSO.

- The IM already has its own communication channels with citizens (*Defensoría de Vecinas y Vecinos*), and these means could also be used during the project, and addressed with the support of the project team.
- The project's communication channels (e.g. the website) should include the possibility of receiving comments from the public, and should deploy a procedure to address those referring to unexpected negative impacts.

43. It is worth highlighting that public transport (and NMM) are seen as channels to reduce the mobility gap among social groups. From this perspective, the social groups to address would be those with inadequate mobility conditions in sustainable transport modes. This includes children and the elderly with high car-dependency.

Mainstreaming gender

44. Modal share, last measured in 2009, indicates that the use of cars is more frequent among men, compared to women. Employment in the transport sector is disproportionately occupied by men, compared to other sectors in the national economy. Therefore, the project is acting in an environment with significant gender differences, and offers a unique opportunity to first address the differential needs of men and women in the urban mobility field, and second, to undertake transformative change. Gender issues have been mainstreamed in the project's components as follows:

- The introduction of new technologies in the project will be associated to the dedication of women to the jobs associated (driving and maintenance). In those areas, there is a huge gap between men and women in the access to jobs, both within public transport and freight delivery companies.
- The description of public transport jobs will be revised, taking into consideration international evidence²⁶. The public transport sector should benefit from giving more relevance to communicative and people orientation skills among its employees, and from providing a working environment more attractive for women.
- There is no evidence on the priorities identified by men and women regarding public transport quality in Montevideo. Evidence from other countries²⁷ suggests that women are more concerned about safety and personal security. Furthermore, women tend to have less access to different transport options, and tend to have multiple purposes in their trips, many times during off-peak hours, to accommodate the conflicting needs of work, household and childcare: questions of high relevance could include off-peak service quality, convenient transfers, and good coverage of key destinations by the network beyond the traditional radial lines serving commuting trips. The project intends to define public transport quality priorities from a gender perspective.
- The project also aims at encouraging walking and cycling, particularly for short-distance trips. Evidence shows differences among men and women in their perception of the public space, and their willingness to use NMMs. The project actions in this field will therefore adopt a wide, gender-sensitive approach in its campaigning.
- The implementation of green mobility plans in some major working centers offers a unique opportunity to better understand the gender gap in daily home-to-work commuting and to adopt a consistent, gender-sensitive approach well-tailored to the specificities at each site. This includes the consideration of gender-sensitive options for flexible working hours, priority setting at parking places, and bike-sharing and car-pooling programmes. These considerations can be discussed with employees and executive officers in private companies and public institutions, since the first activities at each site are undertaken.
- Project monitoring and evaluation. Project monitoring and evaluation will wherever possible include gender data.

South-South and Triangular Cooperation (SSTrC):

45. Considering the large number of urban transport projects in the region and in the rest of the world, there are promising opportunities for getting this project actively engaged in South-South and triangular cooperation. The project will actively seek for sustained cooperation with organizations such as EMBARQ and ITDP, both active in the region, and will seek exchange with some of the transport NAMAs (Nationally Appropriate Mitigation Actions) active

http://biblioteca.clacso.edu.ar/clacso/becas/20131217094958/D_Hernandez_politicas_publicas_final_revisado.pdf

²⁶ Such as the recent UITP research project WISE, financed by the European Union FP7 Research Programme: <http://www.wise-project.net/pages/index1.html>

²⁷ http://www.sutp.org/files/contents/documents/resources/A_Sourcebook/SB7_Social-Issues-in-Transport/GIZ_SUTP_SB7a_Gender-and-Urban-Transport_EN.pdf

in the region. The most promising area for SSTRc is probably the implementation of electric buses in urban public transport. A growing number of Latin American cities are exploring this field, with different approaches: since the seminal implementation of trolleybuses in Quito (Equator) in 1995 to recent trials in Rio, Salvador and Campinas (Brazil).

46. Furthermore, similar trials are currently being implemented in many other cities around the world: the ZeEUS project, coordinated by UITP and completed in April 2017, has established a network of 40 European cities; three recently-launched European projects under the “CIVITAS” programme are also exploring the use of electric buses in cities, and are open to the participation of cities outside Europe, opening up prospects for triangular cooperation worth to be explored.

47. UNDP is currently involved in other transport-related projects under preparation or implementation in the region. This offers unique opportunities for networking of project teams, exchange of practice and common dissemination actions. Outside LAC, UNDP has a series of projects on low emission transport such as in Bhutan (PIMS 5563/GEF ID9367), China 5349/GEF ID5728 –fuel cell vehicles), Philippines (PIMS 5304/GEF ID 5717), Malaysia (PIMS 4283/GEF ID5329), and China (4039/GEF ID - on electric buses). Outside UNDP still within the UN system, the project could benefit of info-exchange with UNIDO in two other projects related to low-carbon transport focused in EV in South Africa (GEF ID 5737) and Malaysia (GEF ID 5741).

48. Therefore, 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.).

V. FEASIBILITY

Cost efficiency and effectiveness

49. The project takes stock of good practice recommended by practitioners and the academy, and lessons learned from other GEF funded projects. More precisely, the project adopts an Avoid- Shift- Improve strategy²⁸, as it is generally accepted that mitigation objectives can only be achieved by combining actions to reduce/avoid car travel, to improve the performance of technologies and to shift to more sustainable transport modes. For each action, the use of resources is kept at the minimum needed to achieve impact. Therefore, the project is expected to prove the effectiveness of each action for future replication, but will avoid to dedicate resources to increase the number of pilots that would not add significant value in terms of promoting change.

50. This approach is inspired in the past successful GEF projects in Uruguay, which 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.

51. The selected pathway should facilitate the removal of barriers to the deployment of low-carbon mobility options. A substantial part of the project resources, accounting for 48% of the GEF funding (excluding project management) is dedicated to this outcome. This high share is justified by the available experience in transport projects fighting institutional and regulatory barriers: a wide array of regulations have to be modified, requiring the involvement of a variety of technical services within the national and local governments.

52. The number of pilots has been reduced to the minimum necessary to make sure that no essential requirements will be left outside: in the case of public transport, the number of vehicles will allow to get all the operators involved; in the case of freight delivery, it is expected that 6 vehicles will be enough to cover most of the services that are well

²⁸ ITDP (2013). *Maximizing the Effectiveness of the GEF Sustainable Transport Portfolio*. https://www.itdp.org/wp-content/uploads/2014/07/Global_Environmental_Facility_ITDP.pdf

suited to the characteristics of electric vans available on the market. These activities will require 47% of the GEF project funding, excluding project management.

53. The remaining budget is distributed among cultural change and monitoring, verification and reporting (MVR) activities. Although modest in terms of resources, activities aiming at cultural change have a significant potential for replication, and are expected to yield substantial consequential savings in CO2 emissions. Furthermore, experience from transport projects shows that for cultural change to occur, there is a need to tailor the approach to quite specific groups of users. Following the lessons learned on *Company Mobility Management*²⁹, the project's activities are expected to concentrate on well defined social groups in order to gain expertise and to be able to build up the necessary capacities and success stories: There is reasonable potential for huge replication results: in accordance with local experts, the bottom-up estimate of consequential impacts assumes that, 10 years after the project ends, (a) at least 5% of the PT fleet in the country (and its services in bus-km) will be e-buses, (b) at least 540 more commuters will have changed from SUV to a sustainable transport mode, and (c) in cities outside Montevideo, non-motorized transport modes will gain at least twice the share gained by the project (i.e. 4 percentage points instead of 2 percentage points), due to smaller trip distances in these cities.

54. The scope of the project's activities has been discussed during project preparation, aligning them to the expected objectives. Institutional stakeholders have held preliminary discussions on all the areas identified within the policy framework, and the project will facilitate the incremental resources needed to move forward towards actual reform at the national and metropolitan/local levels. Contacts have been made with representatives in Uruguay of electric vehicle manufacturers, checking the availability of the technologies and their key performance characteristics. Public transport operators and freight delivery firms have received information about the options for pilots, building upon previous short-term experiences in Montevideo (CUTCSA and UTE). Social experts and the project stakeholders have been approached to confirm the feasibility of introducing tailored tools to encourage change in mobility behavior with selected social groups and a few major working centers.

55. Social and gender dimensions have been integrated along the project approach. The improvement of PT quality plays a central role in the strategy, with an expected impact primarily on low income groups and women, as they tend to be dependent on the PT system in a higher degree. Quality improvement is addressed by the project from a participatory perspective, focusing on the PT traits more valued by these social groups and by the population at large, and is complemented by a strategy to facilitate the access of women to the new jobs generated from e-mobility solutions. Worldwide experience shows that a better gender-balanced staff results in PT services better valued by all users, including women. Cultural change is expected to generate a more positive attitude towards non-car users (including women) on the city streets, and more careful consideration of their needs.

56. The project will be implemented within a favourable context at the local and regional levels, as most of the institutions involved are working in the revision of their long-term strategies (revision of the Urban Mobility Plan, Energy Efficiency Plan, and the recently launched National Policy on Climate Change). Electric vehicles will be introduced cautiously, as a way to prove their usefulness to skeptical users (freight and bus companies), and trying to reach as many operators as possible. Behavioural change will focus on (a) trips to work in the center and (b) short-distance trips of some vulnerable users, as a way to introduce innovative mobility coaching in Montevideo (personalised tools widely used in many cities). In all cases, the focus is on low-cost, innovative approaches (low-regret, high delivery), already tested in other cities.

Risk Management

57. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Social and environmental safeguards

²⁹ See for example CIVITAS CAPITAL project: http://civitas.eu/sites/default/files/civitas_training_ljubljana_20151009_resource_pack_corr.pdf

58. Social and environmental risks mentioned above have been discussed with the Executing partners and with a variety of stakeholders through a workshop held during the PPG. The following social and environmental risks were discussed, were analysed in the Social and Environmental Screening Procedure (SESP, Annex F) and the one rated as MODERATE has been reviewed in more detail within the Environmental and Social Management Plan (ESMP, Annex G):

- There is a risk that improved quality of public transport will either increase fares- reducing its affordability- or produce a dual system, with high quality offered only in the city core, leaving large parts of the metropolitan area with low quality services. In accordance with UNDP (2012), public transport in Montevideo is mostly used by women and by those in the lower income quintiles. Although offering a reasonable coverage, the centralized pattern of the lines provides much better service in terms of frequency and directness, in the city core than in peripheral areas. Authorities are making considerable efforts in keeping the affordability of public transport through subsidies, and this policy is not challenged in the political discussion by any agents. Furthermore, some projects measures are expected to offer significant savings in the long-term, reducing fuel consumption and gaining additional public transport users. Accordingly, although the implementation of the quality improvement actions and electric vehicles supported by the project could result in additional operational costs, this risk is assessed as LOW.
- There may be some risk concerning the ability of current PT workers to adapt to the new electric technology. The deployment of electric buses in the city will result in changes in the expertise required for vehicle maintenance and- to a lesser extent- driving. The experience available (e.g. the ZeEUs project) suggests that maintenance needs are expected to decrease, and that driving conditions become less stressful. This risk has been discussed with the executing partners and has been assessed as LOW. Any transition towards a fully electrified fleet is expected to take years, giving enough time for eventual adaptation plans. Furthermore, the project is expected to empower the public transport system to attract new users, which would require an expansion in terms of vehicles and jobs. The new technologies open a window of opportunity to accelerate the integration of women in what has thus far seen as a male-dominated working environment.
- The main environmental hazard related to the project regards the treatment and recycling of batteries after their service life. E-mobility experience around the world is still too short-lived to have established consolidated practice in battery re-use, recycling and disposal. The project is aware of this, and the search for alternatives is one key action within component #1. Although the number of vehicles involved in the pilot is low enough to pose no environmental hazard, an adequate regulatory and management solution has to be envisaged for the future. Accordingly, this risk is therefore assessed as MODERATE.
- Reduced resilience of the public transport system to changes in climate and to extreme weather events, as a consequence of the introduction of new vehicle technologies and of new quality plans. The vulnerability of the transport system would be a consequence of the growing dependence of the public transport system on the electric grid for daily charging of the EVs. The project design has addressed this challenge with two main avoidance actions: the first one refers to the project outcome on improved public transport quality, which will support IM and PTOs in identifying cost-efficient measures to gain robustness; the second one refers to the project collaboration with UTE to define a reliable charging system for a growing fleet of electric buses and other EVs, included within project output 2.3. The risk has been assessed as LOW.
- Environmental risks associated to emissions, air quality or noise have not been identified. In fact, air quality monitoring in Montevideo has not reported serious transport-related air quality hazards in the last years. Furthermore, the project is expected to slightly decrease car-use, and to introduce clean technologies.

59. It cannot be fully discharged that social and environmental grievances will not arise during project implementation. The following channels will be used by the project

- IM, through the regular channel provided by “*Defensoría de Vecinas y Vecinos*”.
- The working centers involved in the preparation and deployment of mobility plans will be requested to provide channels for employees to report on eventual grievances derived from the measures implemented.
- Public transport operators and freight delivery companies will be asked to implement appropriate channels to address employees’ concerns on the consequences of the use of electric vehicles.

Table 2: Project Risks

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
Reduced resilience of the public transport system to changes in climate and to extreme weather events, as a consequence of the introduction of new vehicle technologies and of new quality plans. ³⁰	Environmental	Moderate changes foreseen by 2030; more significant changes by 2050. Changes in climate and weather events would difficult the operation of the public transport system and make sustainable transport modes less attractive for users. P = 1; I = 2	Consideration of the resilience of the public transport system and revision/adoption of contingency plans are included within the outcome 1.2 (public transport quality)	IM, PTO, project team	No change
Environmental impacts of EV batteries: Uncertain options for lit-ion batteries after their service life.	Environmental	One of the main challenges of mass commercialization of lithium-ion batteries for urban transport is the development of specialized services for disposal and recycling. Additionally, as the market is still unexplored, the specific impact and overall profitability of private investments are unknown. Risk probability is low, as global manufacturers are actively developing alternatives for recycling and reuse, to be implemented at the international level. The number of EVs in the project is low (5 buses, 6 vans), which limits significantly the impacts in terms of magnitude. P =2; I = 3	One initial measure is to request from EV manufacturers a complete description of the components uses in their batteries. The project has been designed to review mitigation options and to recommend appropriate regulatory measures to the government. Mitigation options within the project will include two alternative concepts: reuse and recycling; both are being actively explored by battery and EV manufacturers, who will be associated to the project. Provisional storage of batteries will also be explored within the project, as reuse and recycling require large quantities of batteries to be processed.	MVOTMA, MIEM, project team	Reducing
Reduced PT affordability: Improved quality of public transport will require more resources and could result in an increase of fares, reducing its affordability for a part of the population.	Social	Public transport in Montevideo is mostly used by women and by those in the lower income quintiles. Higher quality could result in higher operational costs, and pressure for higher fares with some social impact (3). However, there is scope for efficiency gains (reducing costs), and the system has successfully cope with affordability challenges in the past, thanks to a robust system of subsidies and special	The project design has included measures that will provide savings in the long-term, reducing fuel consumption, and quality improvement will provided additional public transport users. The project design includes as key management measures the involvement of operators and vulnerable groups in the adoption of PT quality targets,	IM, project team	No change

³⁰ As identified in *Cuarta comunicación nacional a la conferencia de las partes en la convención marco de la Naciones Unidas sobre el cambio climático (2016)* and *Plan climático de la región metropolitana de Uruguay (2016)*.

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
		fares; furthermore, an increase in quality should provide more users to the system, improving its financial robustness. Probability is therefore very low; furthermore, authorities are making considerable efforts in keeping the affordability of public transport through subsidies, and there is wide political consensus on this approach. P = 1; I = 3	so that they are consistent with financial sustainability and with affordability. Furthermore, the system of financial subsidies will be revised, to encourage the deployment of EVs while keeping PT use affordable to all.		
Employment loss: Current PT workers unable to adapt to the new electric technology.	Social	The deployment of electric buses in the city will result in changes in the expertise required for vehicle maintenance and- to a lesser extent- driving. The still limited experience in this field around the world (e.g. the ZeEUs project), suggests that maintenance needs (particularly in-house) are expected to decrease, and that driving conditions become less stressful, with no particular difficulties for drivers to adapt. This risk has been discussed and assessed with the executing partners and public transport operators. The transition towards a fully electrified fleet is expected to take years, giving enough time for eventual adaptation plans. P = 1; I = 3	The project design provides a variety of mitigation actions: on the one hand, as the project is expected to empower the public transport system to attract new users, an expansion in terms of the total number of PT jobs is foreseen, compensating for any potential loss. On the other hand, the project includes actions to facilitate access to EV-related jobs through training, and a revision of recruitment strategies, taking advantage of the appeal of EV technologies for potential workers. The project also takes benefit of the new technology to accelerate the integration of women in what has thus far seen as a male-dominated working environment.	IM, project team	No change
Lack of adequate financial schemes for the procurement of electric vehicles	Financial	Companies would not be interested in procuring EVs due to their higher up-front costs and loss of subsidies which apply to other vehicles P = 3; I = 3	By the end of 2nd. year and before the Mid-term review, Project management will review the tax structure for EVs, the proposed incentives and on-going subsidies to measure the financial viability of the market shift. If the financial environment is not favorable, an alternative financial scheme discussed during the PPG such as soft credits provided by the public	Executing partners; project team	Reducing

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
			banks under the existing green credit lines. Also, in Uruguay there is a tax discount mechanism for the companies interested in buying EVs, using the existing "Investment Promoting Law # 16906".		
Changes in current local and national policies, reducing priority for sustainable options on energy and transport	Political	There is strong consensus on energy policy favoring renewables; the consensus is somewhat weaker regarding urban mobility, a change in this consensus would undermine the case for EVs and for sustainable urban mobility P = 1; I = 3	Transparency and information on policy achievements, to support current consensus.	Executing partners	No change
New transport concepts are rejected by some target users	Other: Cultural	Target users could see cars as more attractive than PT and NMMs, undermining the modal split and increasing emissions. P=2; I=3	Potential target users identified in the first year. Interaction with target users. Selection of most promising users, and replacements, if needed.	IM, project team	No change
Key, risk-adverse stakeholders become reluctant to the suggested changes	Other: Cultural	Some PT operators and urban freight delivering firms prefer to stick to well-known technologies; local authorities would avoid measures restraining car use. The emissions avoided by the project would be lower. P=1; I=4	Evidence of measures successfully implemented in other cities. Wide array of stakeholders identified, so that others can be involved.	Executing partners	Reducing
Degradation in current economic prospects make stakeholders reluctant to innovation	Other: Economic	An economic downturn would reduce the capacity of government to subsidize public transport and to improve mobility, jeopardizing the deployment of EVs and sustainable mobility measures. P=1; I=3	Modal change would be promoted on the basis of lower users' costs and decreasing car affordability	IM, project team	Reducing
Electric vehicles not available, or not appropriate to comply with minimum operators' requirement	Other: Technological/Operational	There are few EV manufacturers, and Uruguay is a small market for them; the availability of EVs relies on manufacturers keeping their commitment with the project. P= 1; I=4	Alternative manufacturers identified	Executing partners, project team	Reducing
Changes in regulations are not agreed and not approved	Regulatory	Regulatory changes are crucial for attaining the project's objectives. Otherwise, the case for EVs is weakened, and so does the modernization of the fleet. P=2; I=4	Changes needed have been identified by executing partners.	Executing partners, project team	No change

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
PTOs and freight companies unwilling to accommodate their business models to a quality, low-carbon focused future	Cultural/ Economic	EVs may require different operational schemes to be optimized, which could require significant changes in working shifts, routes, etc; there could be internal resistance to full deployment, beyond the pilots, jeopardizing the implementation of the project. P=1; I=3	Tailored approach, as business models are different among companies	Project team	No change

Sustainability and Scaling Up

60. The project’s policy context is characterized by consistent long-term strategies on clean energy, energy efficiency, and climate change mitigation: Uruguay set in place an energy strategy (*Política energética Uruguay 2030*) in 2008, and has successfully reduced the country's dependence on fossil fuels since then; the national energy efficiency strategy (*Plan nacional de eficiencia energética, 2015-2024*) includes the implementation of new technologies in transport as a key component; and the National Plan on Climate Change (*Plan nacional de respuesta al cambio climático, 2010*), followed by the first Biennial Update Report 2015, and the Fourth National Communication, 2016, includes some transport measures. Furthermore, the non-binding Intended Nationally Determined Contributions (INDC) for the country, prepared in 2015, aims at a reduction of the intensity of CO2 emissions compared to GDP of 25%³¹ for 2030 from 1990 levels. The elaboration of a definitive INDC for the country is being developed now under the framework of the recently approved National Policy on Climate Change (2017), which has strategic lines to approach transport sector emissions.

61. The project builds upon the lessons learned from the successful UNDP/GEF “Uruguay Wind Energy Programme” (2007-2010), which helped to launch the country’s expansion of renewables: it intends to build up a consistent regulatory framework, and to get key stakeholders familiarized with electric vehicles, as a way to facilitate their quick deployment. The electrification strategy is targeting particular professional fleets rather than individuals, as those stakeholders are more likely to get interested by the long-term competitiveness of EVs. The incentives needed to make EVs competitive will be assessed during the project, and implemented in the new regulations. Furthermore, manufacturers and their importing partners will enjoy a stronger commercial case after the pilots, and will benefit from reliable estimates on the national market potential. The PT quality improvements achieved will serve operators and authorities to assess the potential for expansion to other cities. Stakeholders will have a better basis to focus their quality improvement measures on the most promising social groups.

62. Actions on cultural change are following a similar approach: their design is based upon good practice (for more than 20 years now) in Europe and elsewhere, focusing on the most promising targets: daily commuters working in major working centers, with well-defined working schedules, and somewhat sensitive to energy, environmental and mobility challenges. These actions have modest needs in terms of resources and are easy to replicate.

63. The project is also aiming at reducing the gap between men and women. All its components are gender sensitive, facilitating the access of women to the jobs associated to electrification in public transport and freight delivery companies and focusing on those barriers women identify as jeopardizing their accessibility. This approach is expected to be sustained after project termination through the inclusion of the project’s recommendations within the practice of IM as public transport authority and the national government in its low-carbon mobility policy.

³¹ 40%, if access to the necessary additional means of implementation are provided.

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): <i>list relevant SDG goal (s): 7, 9, 11, 13</i>					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: 1.1 The country has strengthened its capacities and institutional framework to ensure the preservation of the natural resources including water, echo systemic services, pollution prevention and generation and sustainable use of energy, promoting local development and creation of livelihood. 1.3 The country has strengthened its capacities for mitigation and adaptation to climate change, as well as its disaster resilience					
This project will be linked to the following output of the UNDP Strategic Plan: <i>consult with the UNDP Country Office and the UNDP-GEF Regional Technical Advisor before selecting one of the following outputs. Delete the outputs copied below that are not selected. See opening section under further information for additional details.</i>					
Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)					
	Objective and Outcome Indicators (no more than a total of 15 -16 indicators)	Baseline³²	Mid-term Target³³	End of Project Target	Assumptions³⁴
Project Objective: <i>To promote an efficient, low-carbon transport model in Montevideo</i>	<u>Mandatory Indicator 1:</u> Number of new development partnerships with funding for improved energy efficiency in transport (partnerships signed between government and companies interested in using EVs.	No partnerships in the urban transport sector	Partnerships signed with 2 bus companies and 2 delivery companies	Partnerships signed with 4 bus companies and 4 delivery companies	MIEM establishes a formal procedure for partnership agreement approval and a MoU template. New partners will be keen to undertake fleet renewal with precise targets on EVs in the next 10 years. Medium-term savings limited by lack of driving experience and lack of adjustment of EVs to their most appropriate services.
	<u>Mandatory Indicator 2:</u> Extent of change in energy efficiency: energy consumption ratio of pilot EVs compared to conventional vehicles	1:1 (No EVs)	1:3 (Bus) 1:4 (vans)	1:3.5 (Bus) 1:4.5 (vans)	
	<u>Mandatory indicator 3:</u> Number of direct project beneficiaries (increase in the number of bus tickets sold annually)	0	6.3%	7.1%	TEEMP model: 0,4% annual population growth and 1.0584 bonus factor due to improved quality
	<u>Indicator 4:</u> <i>Emissions of carbon dioxide (in million metric tons) saved since project starts (direct)</i>	0	5.88 kt	12.03 kt	EVs operational by the end of first year. Regular (annual) checking of baseline assumptions necessary.

³² Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and need to be quantified. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

³³ Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

³⁴ Risks must be outlined in the Feasibility section of this project document.

Component/Outcome³⁵ 1.1 Policy framework for a low-carbon transport system <i>Outcome 1.1: Adequate institutional capacity and regulatory framework in place to foster low-carbon mobility options</i> 3 indicators maximum	<i>Indicator 5: Number of revised regulations on taxes, incentives and subsidies to e-mobility for public transport and urban delivery</i>	0	1	4	Regulations on ecolabelling revised by end 2nd year. EVs: Regulations on gasoil subsidy, custom fees, battery disposal revised by end of project MRV system on urban transport in place by end of project National or local regulation strengthening coordination between land use and transport in place by end of project
	<i>Indicator 6: Formalized intergovernmental coordination structures on climate change, urban mobility and land use planning</i>	0	1	1	The mandate of the Inter-institutional Group on Energy Efficiency in Transport is expanded to cover climate change mitigation, and the group is provided with resources for its operation.
Component/ Outcome 1.2 Policy framework for a low-carbon transport system <i>Outcome 1.2: Modal share of public transport increased, and quality control improved</i> 3 indicators maximum	<i>Indicator 7: Targets for PT quality identified and enforced by IM</i>	0	Minimum number of targets approved for each category: fleet and vehicle characteristics (4), planned and actual service supply (4), information and communication with users (4), comfort levels (2) and safety (2)	Minimum number of targets enforced for each category: fleet and vehicle characteristics (4), planned and actual service supply (4), information and communication with users (4), comfort levels (2) and safety (2)	Few quality targets in place; a quality plan will be developed by IM with coherent targets, in collaboration with TPOs; the plan will need to gain adequate backing by national legislation
	<i>Indicator 8: Average subsidy received by an e-bus per year, as a percentage of the average subsidy received by a conventional bus in Montevideo</i>	0%	100%	110%	Current gasoil subsidies are transformed into subsidies per km, with a 10% incentive for e-buses. <i>The incentive gap between E-buses and conventional buses could subsequently grow, without increasing the total budget dedicated to this subsidy.</i>

³⁵Outcomes are short to medium term results that the project makes a contribution towards, and that are designed to help achieve the longer term objective. Achievement of outcomes will be influenced both by project outputs and additional factors that may be outside the direct control of the project.

Component/ Outcome 2 Demonstration of technological options in Montevideo <i>3 indicators maximum</i>	<i>Indicator 9: Total annual km served with e-buses</i>	66,000	350,000	400,000	Estimated annual distance travelled by e-bus during 2016 pilot: 66,000 km. <i>Estimated future annual distance by each e-bus: 80,000 km</i>
	<i>Indicator 10: Percentage of new jobs linked to e-vehicles occupied by women (measured as a percentage of the total expected new jobs)</i>	0	50%	100%	All new job positions within the project (drivers, maintenance, managers) offered in priority to women.
	<i>Indicator 11: Total annual km served by e-vans in urban delivery</i>	0	45,000	90,000	Average distance per year: 15,000 km
Component/ Outcome 3 Cultural change, dissemination and replication <i>3 indicators maximum</i>	<i>Indicator 12: Number of persons changing transport mode following company mobility plans</i>	0	270	270	TEEMP: Employees using SOV are 36% of the total, and 5% of them change mode due to company mobility plans.
	<i>Indicator 13: Percentage of vulnerable users (women, elderly) satisfied by mobility conditions</i>	(*)	(*) + 2%	(*)+ 5%	(*) 2017 Baseline data to be supplied by IM. <i>An annual satisfaction survey, including questions on PT and street conditions, is made by IM.</i>
	<i>Indicator 14: Number of cities in Uruguay over 20,000 inh. including EVs in their mobility plans</i>	0	1	3	Total: 3 cities in the country with more than 20,000 inh, outside the Metropolitan Area of Montevideo
Component/ Outcome 4 Knowledge Management and M&E <i>3 indicators maximum</i>	<i>Indicator 15: Project expenditure</i>	0	70%	100%	Electric vehicles successfully procured by the project Mid-Term
	<i>Indicator 16: Number of monthly project website visits</i>	0	2000	5000	The website offers contents of interest for transport policy in Montevideo and other cities

VII. MONITORING AND EVALUATION (M&E) PLAN

64. The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. Supported by Component/Outcome Four: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

65. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](#) and other relevant GEF policies³⁶.

66. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.³⁷

M&E Oversight and monitoring responsibilities:

67. Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

68. The Project Manager will develop annual work plans based on the multi-year work plan included in Annex A, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc.) occur on a regular basis.

69. Project Board: The Project Board will perform general oversight of the project and take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

70. Project Implementing Partner: The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

³⁶ See https://www.thegef.org/gef/policies_guidelines

³⁷ See https://www.thegef.org/gef/gef_agencies

71. UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

72. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

73. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

74. UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

75. **Audit**: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.³⁸

Additional GEF monitoring and reporting requirements:

76. Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

- a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
- e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;
- f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

77. The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

78. GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

³⁸ See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

79. The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

80. Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally. One central tool for knowledge generation will be the networking with other UNDP-GEF transport projects in the region (see SSTRc section above). Knowledge generation will be sustained on three areas of innovation: technological (with a focus on EV), legal (with a focus on successful legal reform on urban transport), and policy (successful collaborative processes facilitating the adoption of green transport measures by decision makers. Contacts among UNDP-GEF transport projects in the region will be facilitated through communities of practice (for discussion on specific topics), and webinars (for sharing experiences among project teams and professionals at large in the countries involved).

81. GEF Focal Area Tracking Tools: The following GEF Tracking Tool(s) will be used to monitor global environmental benefit results:

- Total Lifetime Direct and Consequential GHG Emissions Avoided (Tons CO₂eq)
- Number of Users of low GHG systems (Number, of which female)
- Time Saved in adoption of low GHG technology (Percentage)
- Volume of investment mobilized and leveraged by GEF for low GHG development (co-financing and additional financing) (of which % public, private, domestic, external).
- Identify specific GHG reduction target (percent), if any, under any national, sectoral, local plans.
- Degree of support for low GHG development in policy, planning and regulations.
- Quality of MRV Systems.

82. The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted as Annex D to this project document – will be updated by the Project Manager/Team (not the evaluation consultants hired to undertake the TE) and shared with the terminal evaluation consultants before the required evaluation missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed Terminal Evaluation report.

83. Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

84. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

85. **Final Report:** The project’s terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Table 3: Mandatory GEF M&E Requirements and M&E Budget

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ³⁹ (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	USD 5,000	None	Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework by project team	Project Manager	None	None	Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	USD 3,000	None	As per UNDP Audit policies
Lessons learned and knowledge generation	Project Manager	None	None	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None	None	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None	None	On-going.
Project Board meetings	Project Board UNDP Country Office Project Manager	None	None	At minimum twice a year
Supervision missions	UNDP Country Office	None ⁴⁰	None	Annually
Oversight missions	UNDP-GEF team	None ⁴⁰	None	Troubleshooting as needed
Knowledge management as outlined in Outcome 4	Project Manager	USD 5,000	None	On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	None	To be determined.

³⁹ Excluding project team staff time and UNDP staff time and travel expenses.

⁴⁰ The costs of UNDP Country Office and UNDP-GEF Unit’s participation and time are charged to the GEF Agency Fee.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ³⁹ (US\$)		Time frame
		GEF grant	Co-financing	
Mid-term GEF Tracking Tool to be updated by MIEM and project team	Project Manager	None	add	Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 15,000	None	Between 2 nd and 3 rd PIR.
Terminal GEF Tracking Tool to be updated by MIEM and project team; support from TE	Project Manager	None	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 30,000	None	At least three months before operational closure
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		USD 58,000	None	
Project team staff time Estimated salary of the PM for the time dedicated to M&E activities		USD 24.000	None	
TOTAL indicative COST Including estimated salary of the PM for the time dedicated to M&E activities		USD 82.000	None	

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism

86. The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Uruguay, and the Country Programme. The project will be executed by the Ministry of Industry, Energy and Mining (MIEM), which will act as the Implementing Partner. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Capacity & Harmonized. Approach to Cash Transfer (HACT) Assessment of MIEM is attached as Annex K.

87. The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. The Project Board will be integrated by MIEM, MVOTMA, UNDP Country Office, and the Uruguayan Agency for International Cooperation (*Agencia Uruguaya de Cooperación Internacional, AUCI*).

88. The Director of Energy of MIEM will play the role of Project Director and will preside the Project Board. The Project Director will be technically supported by the Project Manager, a technical representative of the MVOTMA Climate Change Division and the Environmental Programme Associate of UNDP Uruguay.

89. The Project Manager (PM) will be selected through an open competitive process. The PM, who will be responsible for the project coordination and supervision, will run the project on a day-to-day basis on behalf of the

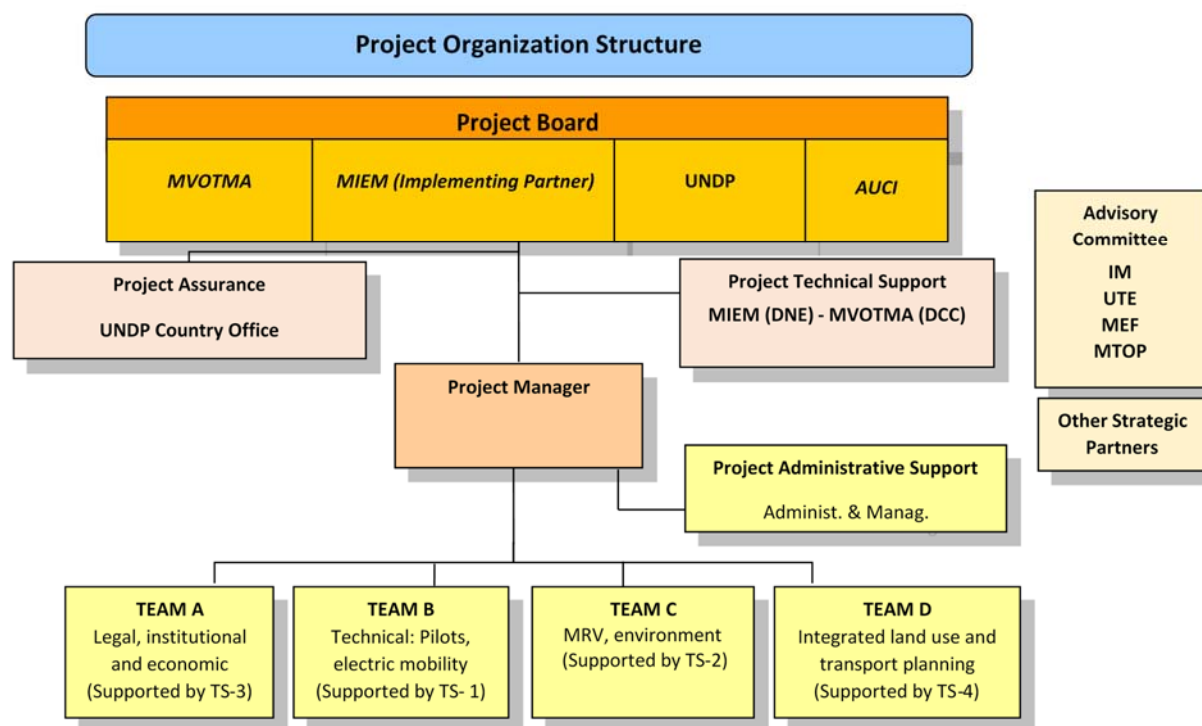
Implementing Partner within the constraints laid down by the Board. The Project Manager function will end when the final project terminal evaluation report and corresponding management response, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project).

90. The PM will be supported by four full-time technical specialists (TS), with experience respectively in the fields of transport (TS-1, in charge of component 2), environment (TS-2, in charge of component 1), economics/legal (TS-3, horizontal support to all components) and city studies (TS-4, in charge of city and regional planning and social issues) (component 3), and by one full-time person providing administrative and managerial support. Technical specialists will join the project by month 6. All of them will remain in the project until its conclusion, except TS-4, which will participate in the project until month 30. The project organisation structure is described in

91.

92. Figure 2.

Figure 2: Project Organization Structure



93. The project board (PB) will be supported by an advisory committee. Members of the advisory committee can be invited to the PB sessions. It will be set up by representatives from key public institutions for the project:

- Minsisterio de Economía y Finanzas (MEF).
- Ministerio de Transportes y Obras Públicas (MTOP).
- Intendencia de Montevideo (IM).
- Administración Nacional de Usinas y Trasmisiones Eléctricas (UTE).

Other strategic partners

94. Several organizations will be engaged at different stages of the project execution in order to share specific experiences and to participate in the project’s activities, in particular for policy issues and pilots of electric buses and vans:

- Administración Nacional de Combustibles, Alcohol y Portland (ANCAP).
- Cooperativa de Obreros y Empleados del Transporte (COETC).

- Corporación Ómnibus Micro Este (COMESA).
- Compañía Uruguaya de Transportes Colectivos S.A (CUTCSA).
- Unión Cooperativa Obrera del Transporte (UCOT).
- Red Uruguaya de ONGs Ambientalistas.
- Centro Uruguayo de Tecnologías Apropriadas.
- Unión Nacional de Obreros y Trabajadores del Transporte (UNOTT).
- Universidad de la República. Facultades de Ingeniería, Arquitectura, Diseño y Urbanismo y Ciencias Económicas.
- Universidad Católica del Uruguay “Dámaso Antonio Larrañaga”.
- Universidad de Montevideo
- Institutions and companies participating in the electric van pilot.

95. The **project assurance** role will be provided by the UNDP Country Office specifically by the Environmental Programme Associate. Additional quality assurance will be provided by the UNDP Regional Technical Advisor as needed.

96. Governance role for project target groups: The project is targeting a variety of groups, with different levels of engagement in decision-making:

- Public transport operators and workers will be directly involved in decision-making through their participation in the project advisory committee.
- Public transport users, critical for a sound approach to quality improvement, will be engaged through the current participatory channels set up by IM, mainly *Defensoría de Vecinas y Vecinos* and *Consejo Asesor de Movilidad*. Beyond the participation of IM in the advisory committee, it is expected that the PMU will set up appropriate collaboration mechanisms with both bodies during implementation of project components #1 and #2.
- Car users, daily commuting to their working places in the city center, are another key target group. The project will focus on employees of the companies participating in component #3, which are expected to be those that are also represented at the project advisory committee.
- The project’s ambition to promote NMM is focusing on vulnerable groups. It is expected to get those groups involved mainly through the participation of NGOs in the city active in NMM promotion at the project advisory committee. Additionally, MoU will be signed between PMU and these NGOs in order to encourage the networking and involvement of these NGOs with a larger set of groups.

97. UNDP Direct Project Services as requested by Government: UNDP will provide Direct Project Services (DPS). in full compliance with the UNDP recovery of direct costs policies. The DPS will be charged annually using the UNDP Universal Price List. The Letter of Agreement (LOA) specifying the services to be provided and their costs are attached as Annex K. These costs are summarized in Table 4.

Table 4: Summary of Support Services to be provided by UNDP

Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1. Individual consultants contracts	During project implementation	Universal Price List	Support services
2. Companies contracts	During project implementation	Universal Price List	Support services
3. Financial assistance	During project implementation	Universal Price List	Support services
4. Procurement of goods and services	During project implementation	Universal Price List	Support services
		Total: up to USD 60,000 from GEF grant	

98. Agreement on intellectual property rights and use of logo on the project’s deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy⁴¹ and the GEF policy on public involvement⁴².

Project management:

99. Office space will be provided by MIEM and by MVOTMA in Montevideo. The PMU will be at MIEM, while MVOTMA will provide additional office space for meetings and for the members of the project team involved in activities related to land use and spatial planning, environment and climate change.

100. The project is expected to liaise with GEF project 9398 (Uruguay’s Second Biennial Update Report, BUR2), GEF project 9639 (Uruguay’s Fifth national communication) and project 9739 (Building institutional and technical capacities to enhance transparency in the framework of the Paris Agreement). The main area of collaboration regards the estimate, monitoring and reporting of GHG emissions from the transport sector.

101. In the areas of vehicle ecolabelling, fuel efficiency monitoring and taxation, the project is also expected to cooperate with GEF project 4909 (Regional Implementation of the Global Fuel Economy Initiative, GFEI), where other countries in the region (such as Brazil and Peru) are involved, and with other transport-related UNDP/GEF projects in the region, and has assigned some resources under knowledge management for this purpose.

IX. FINANCIAL PLANNING AND MANAGEMENT

102. The total cost of the project is USD 21,759,333. This is financed through a GEF grant of USD 1,721,233 and USD 2,038,100 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.

103. Parallel co-financing: The actual realization of project co-financing will be monitored during the *mid-term review* and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Table 5: Co-Financing Planning

Co-financing source	Co-financing type	Co-financing amount	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Government (MIEM)	In-kind	300,000	<i>Office and meeting space. Study on technological options for expansion of electric fleets. Green company mobility plans.</i>	Study does not fit with project’s approach	Involvement of PMU in study inception and development
	Grants	218,500	<i>Staff working hours. VAT (22%) applied to HH.RR. costs of the project</i>		
Government (MVOTMA)	In kind	300,000	<i>Office and meeting space. Study on GHG monitoring for the transport sector. Green company mobility plans</i>		
	Grants	40,000	<i>Staff working hours</i>		

⁴¹ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

⁴² See https://www.thegef.org/gef/policies_guidelines

Co-financing source	Co-financing type	Co-financing amount	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Intendencia Montevideo	Loans	16,500,000	<i>Traffic control center (phase 1 and 2), Mobility Survey</i>	Implementation of TCC phase 2 delayed	Alternative approach to PT quality to be developed by PMU
	Grants	100,000	<i>Staff working hours</i>		
Bus Operators	Equity	1,404,000	<i>Procurement of 5 e-buses and related equipment (charging points, etc)</i>	Operators unable to finance procurement	Loans provided by BROU
Bus operators	Grants	20,000	<i>Staff working hours</i>		
UTE	In-kind	100,000	<i>Meeting space. Study on battery disposal alternatives Support to charging points of e-vehicles. Update of standards of charging points and systems Monitoring of e-vehicles</i>		
UTE	Grants	1,055,600	<i>Staff working hours, Installation of an electric vehicle charging public network countrywide</i>	Investment not approved or delayed	Home-based charging of vans

104. **Budget Revision and Tolerance:** As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team as these are considered major amendments by the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

105. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

106. **Refund to Donor:** Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

107. **Project Closure:** Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.⁴³ On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

108. **Operational completion:** The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

109. **Financial completion:** The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial

⁴³ see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

110. The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

X. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas ⁴⁴ Proposal or Award ID:	00098508	Atlas Primary Output Project ID:	00101784
Atlas Proposal or Award Title:	Towards a sustainable and efficient urban mobility system in Uruguay		
Atlas Business Unit	URY10		
Atlas Primary Output Project Title	Towards a sustainable and efficient urban mobility system in Uruguay		
UNDP-GEF PIMS No.	5802		
Implementing Partner	Ministry of Industry, Energy and Mining (<i>Ministerio de Industria, Energía y Minería, MIEM</i>)		

GEF Component/Atlas Activity	Responsible Party/ ⁴⁵ (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
COMPONENT/ OUTCOME 1: <i>(as per the results framework)</i>	MIEM	62000	GEF	71200	International Consultants						
				71300	Local Consultants	78,750	110,750	115,250	124,750	429,500	<i>a</i>
				72100	Contractual services	50,000	80,000	92,500	50,000	272,500	<i>b</i>
					sub-total GEF	128,750	190,750	207,750	174,750	702,000	
					Total Outcome 1	128,750	190,750	207,750	174,750	702,000	
COMPONENT/ OUTCOME 2: <i>(as per the results framework)</i>	MIEM	62000	GEF	71200	International Consultants						
				71300	Local Consultants	15,000	30,000	20,000		65,000	<i>c</i>
				72100	Contractual services		50,000	50,000	33,000	133,000	<i>d</i>
				72200	Equipment		537,000			537,000	<i>e</i>
					sub-total GEF	15,000	617,000	70,000	33,000	735,000	
	Total Outcome 2	15,000	617,000	70,000	33,000	735,000					

⁴⁴ See separate guidance on how to enter the TBWP into Atlas

⁴⁵ Only the responsible parties to be created as Atlas Implementing Agent as part of the COAs should be entered here. Sub-level responsible parties reporting directly to NIM Implementing Partners should not be entered here. For example, if under NIM, UNOPS signs LOA with the IP to manage component 2, and a department of Ministry X will manage component 3, this means that UNOPS will be listed as the responsible party under component 2. The rest of the components will list the IP as the responsible party.

GEF Component/Atlas Activity	Responsible Party/ ⁴⁵ (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:	
COMPONENT/ OUTCOME 3: <i>(as per the results framework)</i>	MIEM	62000	GEF	71200	International Consultants							
				71300	Local Consultants		15,000	5,000		20,000	<i>f</i>	
				72100	Contractual services		10,000	15,757		25,757	<i>g</i>	
				75700	Training, workshop, meetings							
				sub-total GEF		0	25,000	20,757	0	45,757		
Total Outcome 3		0	25,000	20,757	0	45,757						
COMPONENT/ OUTCOME 4: KM and M&E <i>(as per the results framework)</i>	MIEM	62000	GEF	71200	International Consultants		15,000		30,000	45,000	<i>h</i>	
				71300	Local Consultants		12,000		12,000	24,000	<i>i</i>	
				72100	Contractual services	5,000		5,000		10,000	<i>j</i>	
				74100	Audit		3,000		3,000	<i>k</i>		
				sub-total GEF		5,000	30,000	5,000	42,000	82,000		
Total Outcome 4		5,000	30,000	5,000	42,000	82,000						
PROJECT MANAGEMENT UNIT⁴⁶ <i>(This is not to appear as an Outcome in the Results Framework)</i>	MIEM	620	GEF	71200	International Consultants							
				71300	Local Consultants & Local Staff	14,037	23,321	23,321	23,321	84,000	<i>l</i>	
				71600	Travel	1,000	1,000	1,000	1,000	4,000	<i>m</i>	
				72500	Office Supplies	1,000	1,000	1,000	1,000	4,000	<i>n</i>	
				74598	Direct project costs	15,000	15,000	15,000	15,000	60,000	<i>o</i>	
				74500	Miscellaneous	1,476	1,000	1,000	1,000	4,476	<i>p</i>	
				sub-total		32,513	41,321	41,321	41,321	156,476		
Total Management		32,513	41,321	41,321	41,321	156,476						
PROJECT TOTAL						181,263	904,071	344,828	291,071	1,721,233		

⁴⁶ Should not exceed 5% of total project budget for FSPs and 10% for MSPs. PMU costs will be used for the following activities: Full time or part time project manager (and or coordinator); Full time or part time project administrative/finance assistant; Travel cost of the PMU project staff; Other General Operating Expenses such as rent, computer, equipment, supplies, etc. to support the PMU; UNDP Direct Project Cost if requested by Government Implementing Partner; Any other projected PMU cost as appropriate. Audit should be funded under Outcome 4 on KM and M&E or under project outcomes.

Summary of
Funds:⁴⁷

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Total
GEF	181,263	904,071	344,828	291,071	1,721,233
Donor 2: MIEM	120,332	136,014	132,604	129,550	518,500
Donor 3: MVOTMA	95,000	95,000	80,000	70,000	340,000
Donor 4: Intendencia de Montevideo	6,000,000	230,000	10,370,000	0	16,600,000
Donor 5: Bus Operators	0	1,404,000	20,000	0	1,424,000
Donor 6: UTE	250,000	365,600	270,000	270,000	1,155,600
TOTAL	6,646,595	3,134,685	11,217,432	760,621	21,759,333

Budget notes:

- a. Including part of the salaries of the PM (USD 127,000), TS-1, TS-2, TS-3 (respectively USD 68,500, USD 83,500 and USD108,500) and TS-4 (USD 42,000).
- b. Including services for studies on a. battery re-use, recycling and disposal; b. transport urban GHG and other air emissions; c. battery e-buses compared to other sustainable public transport options (e.g trolleybuses); d. modifications in the legal framework, including land planning synergies with transportation. To be further defined in the inception report.
- c. Including part of the salaries of TS-1 and TS-2 (respectively USD 40,000 and USD 25,000).
- d. Including services supporting the operation and monitoring of all the pilots (electric buses and electric vans).
- e. Including the project's contribution to the procurement of the electric buses (USD 495,000) and electric vans (USD 42,000).
- f. Including part of the salary of TS-4 (USD 20,000).
- g. Including services supporting cultural change and dissemination activities, such as website design and maintenance, workshops and campaigns.
- h. International consultant to undertake the mid-term evaluation and the terminal evaluation (reports to be provided in English by the appointed consultant).
- i. Including the salary of the PM for the time dedicated to M&E activities, including monitoring of indicators in PRF and update of GEF TT, (USD 24,000, mostly in project year 2 and 4).

⁴⁷ Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc...

- j. Services to support the preparation and reporting of the inception workshop (year 1) and knowledge management associated to the networking of the project with other UNDP/GEF projects in the region addressing urban mobility.
- k. Estimated audit cost.
- l. Including the salaries of the PM and Administrative Assistant (AA) for the time dedicated to project management (USD 19,000 and USD 65,000, respectively).
- m. Travel expenses for networking with other projects in the region (1 trip per year) and with other cities in Uruguay (2 trips per year).
- n. Lump sum for office supplies not available at MIEM or MVOTMA.
- o. Provision of UNDP project services as defined in the Letter of Agreement (LOA), Annex K.
- p. Provision for unexpected costs associated to project management.

XI. LEGAL CONTEXT AND RISK MANAGEMENT

Legal Context

111. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between the Government of Uruguay and UNDP, signed on 12th December of 1985. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner”.

112. This document, along with the UNDAF (which was signed between the Government of Uruguay and UNDP, and it is incorporated in the present document as a reference), constitute a Project Document as established in the Agreement; and all UNDAF setups apply to this document. All references in the Agreement to “Executing Agency” shall be deemed to refer to “Implementing Partner”, as defined in the UNDAF and in this document.

113. For the purposes of this Document and within the exchange of verbal notes between the Ministry of Exterior Relations and PNUD in July of 2012, the *Agencia Uruguaya de Cooperación Internacional (AUCI)* shall be deemed as the institution with the competences related to International Cooperation in Uruguay.

114. Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

Risk management

115. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.

116. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.

117. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document.

118. Consistent with UNDP’s Programme and Operations Policies and Procedures, social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).

119. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

120. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

XII. MANDATORY ANNEXES

- A. Multi year Workplan
- B. Monitoring Plan
- C. Evaluation Plan
- D. GEF Tracking Tool (s) at baseline
- E. Terms of Reference for Project Board, Project Manager, and other positions
- F. UNDP Social and Environmental and Social Screening Template (SESP)
- G. Environmental and Social Management Plan (ESMP)
- H. GHG Emissions Calculations
- I. List of People Consulted During Project Development
- J. UNDP Project Quality Assurance Report (to be completed by UNDP Country Office)
- K. Results of the capacity assessment of the project implementing partner and HACT micro assessment (completed by UNDP Country Office)
- L. Additional agreements, such as cost sharing agreements, project cooperation agreements signed with NGOs (where the NGO is designated as the “executing entity”), letters of financial commitments, GEF OFP letter, GEF PIFs and other templates for all project types, LOA with the government in case DPCs are applied should be attached.
- M. Gender Analysis & Gender Action Plan

ANNEX A: MULTI YEAR WORK PLAN

Outputs	Responsible party	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.1	Tax regulations and incentives promoting efficient, low-carbon & clean air transport options																
1.2.	Implementation and monitoring of ecolabelling of vehicles, including for energy efficiency, GHG emissions and other air pollutants.																
1.3.	Identification of available technologies and alternatives for regulation of battery re-use, recycling and disposal																
1.4.	National MRV system of GHG and other environmental impacts of urban transport, such as air pollutants and battery use and disposal																
1.5.	Strengthened coherence between land use planning and transport and climate change mitigation policies, with appropriate coordination within existing structures, planning tools and strategies.																
1.6.	Definition of key performance indicators (KPI) for quality control of public transport services, supported by a new traffic control center																
1.7.	Identification of improvement measures and development of quality control systems with PTOs																
1.8.	Alternatives to current regulations and incentives for financing the public transport system, including low-carbon and quality aspects																
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																
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																
4.1.	Project audits are conducted																
4.2.	Mid-term Review and Terminal Evaluation are conducted																

ANNEX B: MONITORING PLAN

The Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project objective from the results framework: To promote an efficient, low-carbon transport model in Montevideo	Partnerships	Number of new development partnerships with funding for improved energy efficiency in transport	<i>Partnerships signed between government and companies interested in using EVs</i>	Annually Reported in DO tab of the GEF PIR	<i>MIEM</i>	<i>Consultant report MIEM report</i>	<i>MIEM establishes a formal procedure for partnership agreement approval and a MoU template.</i> <i>New partners will be keen to undertake fleet renewal with precise targets on EVs in the next 10 years</i> <i>Risk: Lack of adequate financial schemes for the procurement of electric vehicles</i>
	Energy efficiency of e-vehicles	Extent of change in energy efficiency: energy consumption ratio of pilot EVs compared to conventional vehicles	<i>Project partners with EVs (average consumption (kWh/km) of EVs vs. conventional vehicles providing similar services)</i>	Annually Reported in DO tab of the GEF PIR	<i>UNDP/PMU based on reports from PTOs and freight delivery partners</i>	<i>PTOs and freight delivery partners</i>	<i>Medium-term savings limited by lack of driving experience and lack of adjustment of EVs to their most appropriate services.</i>
	Beneficiaries	Number of direct project beneficiaries (increase in the number of bus tickets sold annually)	<i>IM, PMU</i>	Annually	<i>UNDP/PMU based on reports from IM</i>	<i>Number of bus tickets sold annually</i>	TEEMP model: 0,4% annual population growth and 1.0584 bonus factor due to improved quality. Risk: Users reluctant to change to PT due to insufficient quality or appeal of car use.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	CO2 savings	Emissions of CO2 saved since project starts	<i>Emissions model, based on monitoring of project components.</i>	<i>Annually</i>	<i>UNDP/PMU</i>	<i>Model results to be checked against (1) Total fuel consumption by road transport in Montevideo and (2) bottom-up estimates of emissions savings based on project components' results</i>	<i>EVs operational by the end of first year Regular (annual) checking of baseline assumptions necessary. Risk: Changes in current local and national policies, reducing priority for sustainable options on energy and transport</i>
Project Outcome 1	Regulatory change	Number of related national regulations revised	Reporting by MIEM, MVOTMA	<i>Annually</i>	<i>MIEM, MVOTMA</i>	<i>References in "Diario Oficial" and information in MIEM and MVOTMA websites, as well as URSEA (Unidad Reguladora de Servicios de Energía y Agua), as eco-labelling manager</i>	<i>Regulations on ecolabelling expected by end 2nd year. EVs: Regulations on gasoil subsidy, custom fees, battery disposal revised by end of project MRV system on urban transport in place by end of project National or local regulation strengthening coordination between land use and transport in place by end of project. Risk: Changes in regulations are not agreed and not approved</i>
	Institutional coordination	Formalized and empowered inter-institutional coordination structures	<i>Resources allocated to existing inter-institutional group (e.g number of meetings, number of reports...).</i>	<i>Annually</i>	<i>MIEM, MVOTMA</i>	<i>Group's minutes and reports</i>	<i>The mandate of the inter-institutional group is expanded to cover climate change mitigation, and the group is provided with resources for its operation. Risk: Changes in current local and national policies, reducing priority for sustainable options on energy and transport</i>

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	PT quality plan	Number of PT quality indicators/targets identified and enforced by IM	<i>Intendencia de Montevideo</i>	<i>Annually</i>	<i>IM</i>	<i>Official IM resolutions approving indicators and targets</i>	<i>Few existing quality targets; a quality plan will be developed by IM with coherent targets, in collaboration with TPOs; the plan will need to gain adequate backing by national legislation Risk: Key, risk-adverse stakeholders become reluctant to the suggested changes</i>
Project Outcome 2	PT subsidies	Average subsidy received by an e-bus per year, as a percentage of the average subsidy received by a conventional bus in Montevideo	<i>Information available at IM, MTOP, PTOs</i>	<i>Annually</i>	<i>PNUD/PMU</i>	<i>Official reports</i>	<i>Current gasoil subsidies are transformed into subsidies per km, with a 10% incentive for e-buses. The incentive gap between E-buses and conventional buses could subsequently grow, without increasing the total budget dedicated to this subsidy</i>
	E-bus performance	Total annual km served by e-buses	<i>Information registered by IM, PTOs</i>	<i>Annually</i>	<i>IM, PNUD/PMU</i>	<i>Official reports</i>	<i>Estimated annual distance travelled by e-bus during 2016 pilot: 66,000 km Estimated future annual distance by each e-bus: 80,000 km Risk: Electric vehicles not available, or not appropriate to comply with minimum operators' requirement</i>
	E-vans performance	Total annual km served by e-vans in urban delivery	<i>Information registered by companies, UTE</i>	<i>Annually</i>	<i>UTE, PNUD/PMU</i>	<i>Companies' reports</i>	<i>Average estimated distance per year: 15,000 km UTE tracking system in place Risk: Electric vehicles not available, or not appropriate to comply with minimum operators' requirement</i>

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project Outcome 3	Modal change	Number of persons changing transport mode following company mobility plans	Surveys conducted in the working centers with company mobility plans	End of company plan action	Company or local consultant	Consultant or company's report	Target: 270 persons or 5% of the total number of employees reached by company mobility plans previously using SOV. Risk: New transport concepts are rejected by some target users
	Satisfaction vulnerable users	Percentage of vulnerable users (women, elderly) satisfied by mobility conditions	IM: annual satisfaction survey	Annually	IM	IM annual report	Baseline data to be supplied by IM. An annual satisfaction survey, including questions on PT and street conditions, continues to be made by IM (and eventually improved to get further details and accuracy). Risk: New transport concepts are rejected by some target users
	Replication	Number of cities in Uruguay over 20,000 inh. including EVs in their mobility plans	Survey to relevant cities	Annually	PNUD/PMU	Cities' official websites and publications	There are only 16 cities in the country with more than 20,000 inh, outside the Metropolitan Area of Montevideo
Project Outcome 4	Budget delivery	Project expenditure	ATLAS	Annually	PNUD	ATLAS	Success in the implementation of EVs, as 31% of GEF contribution is dedicated to this
	Dissemination	Number of monthly project website visits	UNDP Website manager	Annually	PNUD	Website records	
Terminal GEF Tracking Tool	N/A	N/A	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After final PIR submitted to GEF	Local consultant	Completed GEF Tracking Tool	List assumptions and risks to collecting the GEF TT data
Environmental and Social risks and management plans, as relevant.	N/A	N/A	Updated SESP and management plans	Annually	Project Manager UNDP CO	Updated SESP	

ANNEX C: EVALUATION PLAN:

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants ⁴⁸	Other budget (i.e. travel, site visits etc...)	Budget for translation
Mid-term Evaluation	10/2019	12/2019	Yes	USD 15,000	--	--
Terminal Evaluation	09/2021 3 months before operation closure	01/2022 To be submitted to GEF within three months of operational closure	Yes Mandatory	USD 30,000	--	--
Total evaluation budget				USD 45,000		

⁴⁸ The budget will vary depending on the number of consultants required (for full size projects should be two consultants); the number of project sites to be visited; and other travel related costs. Average # total working days per consultant not including travel is between 22-25 working days.

ANNEX D: GEF TRACKING TOOLS AT BASELINE

Attached separately

ANNEX E: TERMS OF REFERENCE FOR PROJECT BOARD, PROJECT MANAGER AND OTHER POSITIONS

Project Board

1. GENERAL

1.1. The Project Board for the UNDP/GEF project “Towards a sustainable and efficient urban mobility system in Uruguay (hereinafter – PB and the Project) is the highest coordinating body of the project, and is established for collaborative discussion and decision-making of the project activities and for follow-up of the project recommendations.

1.2. These terms of reference, together with national law and the Project Document constitute the regulatory framework for the activities of the PB.

1.3. All PB members act on an institutional representation basis and receive no remuneration for their contributions to the PB.

2. PROJECT BOARD TASKS

2.1. General project guidance and oversight.

2.2. Formulation and review of the project management strategy and identification of project priorities.

2.3. Supervision of project implementation.

2.4. Assessment of the National Project Director’s and/or Project Manager’s and/or any Project Board Member proposals on any amendments to the project activities differing from those specified in the Project Document.

2.5. Coordination of the project implementation activities with related national and international projects and programs.

2.6. Review, discussion and approval of Project Budgets and Annual Work Plans as well as Project Manager’s implementation reports.

2.7. Support to the Project Management Unit in seeking support and co-funding for project implementation.

2.8. Support to the dissemination of information on the project goals, activities, outcomes and lessons learned.

2.9. Support to the organizations of events by the institutions and organizations represented in the Project Board, related to project’s activities.

2.10. Regular review of the performance of the Project Manager and the Project Management Unit.

2.11. Assistance support to cooperation between the project and national and local authorities, transport companies and NGOs.

2.11. Support and assistance to the activities of the Project Management Unit.

3. PB MEMBERS AND STRUCTURE

3.1. The members of the PB are identified in the Project Document, and are submitted to the National Project Director for information.

3.2. The members of the PB may be changed by decision of the PB in accordance with its regular procedures, as described in Section 5 below.

3.3. All PB members and observers are entitled to receive full information on the project, and to take part in the PB discussions. They are also entitled to ask for experts’ advice on particular project activities.

3.4. The National Project Director acts as PB chairperson.

3.5. The Project manager participates as an observer at PB meetings and acts as its secretary. In case of absence of the project manager, his functions can be performed by another member of the PMU or by one member of the PB designed by those present at the meeting.

3.6. PB members can delegate their attendance to PB meetings to any other person, provided this is notified to the Project manager in writing and at least 1 week prior to the session.

4. ORGANIZATION OF PB ACTIVITIES

4.1. PB activities are coordinated by its Chairperson, or another PB member appointed by the Chairperson.

4.2. PB sessions are held at least every six months. Additional PB sessions can be conveyed but the Chairperson or at the written request of at least one of the PB members.

4.3. The PB meeting agenda and its related documents must be distributed at least 1 week in advance.

4.4. PB decisions are taken by consensus

4.5. The PB secretary, supported by the PMU, is responsible for drafting of agenda, organizing the session, sending information to PB members and observers, preparation and distribution of the documents for discussion, and preparation of draft minutes.

4.6. Minutes should be prepared after every PB session, signed by PB secretary and pre-approved by the PB Chairperson. A copy of the pre-approved minutes of the meeting should be sent to PB members within 2 weeks after the meeting. Minutes should be approved by the PB at its subsequent meeting.

4.7. The PB Chairperson is entitled to instruct the PB secretary to organize an extraordinary virtual PB session on urgent issues that need immediate approval. The PB secretary will send the necessary documents for examination and discussion to all PB members and observers. In this case, PB members should and observers could send their opinion and position on the issues submitted to approval through a letter, fax or e-mail message to the PB secretary. The absence of such reply is considered as consent with the proposals. Within one week, the PB secretary should summarize the replies received and submit the final decision to the PB Chairperson for final approval.

4.8. PB members are not entitled to receive extra remuneration or material benefits from any activities financed under the project (excepting DSA and transportation when representing the project outside Montevideo, as appropriate).

5. TERMINATION OF PB MEMBERSHIP

5.1. A question on termination of membership of any PB member should be raised by the PB Chairperson to the plenary in the following cases:

- a. If the member could no longer perform his/her duties, as set forth in the present ToR;
- b. If the member has been absent in more than two consecutive PB sessions;
- c. If the member has concluded his/ her relationship with the organization he/she represented at the PB.

5.2 For cases "a" and "b" above the PB will decide by consensus whether to terminate the membership of the member in question and if so decided, the PB will request to the highest authority of the organization of the terminated member to appoint a new member representing the organization. For case "c" above the member in question will be considered terminated from the PB at the time of the conclusion of his/her relationship with the organization he/she represented at the PB; the PB will request the highest authority of the organization of the terminated member to appoint a new member representing the organization.

Regular Project Staff

1. Project Manager (PM):

Duties and Responsibilities:

The incumbent will be responsible for implementation of the project, including mobilization of all project inputs, supervision of project staff, consultants and oversight of sub-contractors.

The PM will be the leader of the Project Team (PT) and shall liaise with the national and local government, UNDP, and all stakeholders involved in the project.

The PM will perform his/her duties under the authority of the PB and will report to the PB in all relevant issues in a transparent and due diligent approach.

The PM duties and responsibilities specifically include:

- (a) Overall project management.
- (b) Working closely with all project stakeholders and ensure that the project delivers as planned in the Project Document and Work Plan.
- (c) To ensure technical coordination of the project with other relevant international and national projects financed by GEF/UNDP and other institutions.
- (d) To make uses of all project resources in accordance with UNDP procedures and GEF principles.
- (e) To finalize the ToR for the consultants and subcontractors and to undertake the necessary procedures for recruitment, procurement and contracting.
- (f) To supervise and coordinate the activities of all the project staff, consultants and sub-contractors.
- (g) To ensure proper management of funds, consistent with UNDP and GEF requirements, as well as budget planning and control.
- (h) To prepare and ensure timely submission of monthly reports, quarterly consolidated financial reports, quarterly consolidated progress reports, annual, mid-term and terminal reports, and other reports as may be required by UNDP and GEF.

- (i) To submit progress reports and key-issues report to all Project Board meetings.
- (j) To prepare draft annual work plans.
- (k) To provide regular input to the UNDP corporate system ATLAS on project progress, and financial status.
- (l) To make the necessary arrangements for audit of all project accounts as required by UNDP.
- (m) To undertake any activities that may be assigned by UNDP and the Project Board.

Qualifications and Experience:

The incumbent should have a Professional degree in Engineering, Economics or other discipline related to the technical, environmental and regulatory dimensions of urban transport, and professional experience of at least ten (10) years in the areas of city planning, transport, or energy efficiency. S/he should have extensive experience and technical ability to manage a medium-size project and a good technical knowledge in the fields related to public transport, vehicle technologies, climate change, energy efficiency, institutional development or regulatory aspects. S/he must have effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, financial sectors, private entrepreneurs, technical groups and communities. S/he should have ability to effectively coordinate a complex, multi-stakeholder project and to lead, manage and motivate teams to achieve results. Good capacities for strategic thinking, planning and management and excellent communication skills both in Spanish and in English are essential. Knowledge of UNDP project implementation procedures, including procurement, disbursements, and reporting and monitoring will be an added advantage. A Master Degree, and experience in sustainable urban mobility and/or climate change mitigation policies would be an advantage. Experience in the implementation of gender action plans within projects will be an advantage.

2. Administrative Assistant (1 position)

Duties and Responsibilities:

The incumbent will be responsible to provide overall administration and financial services of the project such as processing payments, raising requisition, purchase order, projects logs etc. using UNDP corporate software. S/he will be responsible to provide information to UNDP and to the project websites, reporting and administrative trouble shooting. S/he will also be responsible for:

- (a) Word processing, drafting routine letters/messages/reports, make appointments and schedule meetings, photocopying, binding and filing of documents, and mailing.
- (b) Arranging travel and itinerary preparation for project related travel.
- (c) Assistance in the preparation of workshops, seminars, training programs and other meetings.
- (d) Assistance in work planning and budgeting.
- (e) Maintenance of all office equipment and keeping inventory/records of supplies and their usage and any other duties assigned by Project Manager or concerned officials.

Qualifications and Experience:

The incumbent should have completed secondary education and administration and executive assistant training from a recognized educational institution. S/he should have at least 3 years of relevant working experience with internationally-funded projects or international development or organizations. Computer proficiency in MS Office (Word, Excel and PowerPoint) and other common software is a prerequisite. Diploma in computer/secretarial science is desirable but not essential. Basic knowledge in procurement, petty cash handling, logistics supports, and filing systems is a basic requirement. Knowledge of UNDP project implementation procedures, including procurement, disbursements, and reporting and monitoring is preferable. Fluent both in written and spoken Spanish and English is required. A bachelor degree would be considered as an advantage.

3. Technical Specialist in Transport (TS-1)

Duties and Responsibilities:

The incumbent will be responsible for implementation of the Outcome 2, including assistance to mobilize all component resources, and supervision of consultants and sub-contractors. Under the direction of the PM, the TS-1 will liaise with the national and local governments, UNDP, and all stakeholders involved in Outcome 2 of the project. She/he will be specifically responsible for:

- (a) Overall management of component 2.
- (b) Provide technical guidance on planning of public transport networks.
- (c) Provide technical guidance on quality plans for public transport services.
- (d) Provide technical support on the selection, procurement and operation of electric vehicles.

- (e) Estimate of indicators for monitoring, reporting and evaluation of component 2, in cooperation with TS-2.
- (f) Ensuring the coordination of technical, legal and institutional aspects of component 2, collaboration with the PM.
- (g) Assisting in mobilizing all component inputs in accordance with UNDP procedures and GEF principles.
- (h) Drafting ToR for consultants and subcontractors and coordinating with the PM for recruitment, procurement and contracting.
- (i) Supervising and coordinating the work of all component staff, consultants and sub-contractors related to component 2.
- (j) Ensuring management of component funds consistent with UNDP requirements, and budget planning and control.
- (k) Assisting the PM in the preparation of timely submissions of monthly reports, quarterly consolidated financial reports, quarterly consolidated progress reports, annual, mid-term and terminal reports, and other reports as may be required by UNDP.
- (l) Assisting the PM in the submission of progress reports and key-issues reports to the PB.
- (m) Undertaking other activities as assigned by the PM.

Qualifications and Experience:

The incumbent should hold a Bachelor degree in Engineering with at least five (5) years of professional experience. S/he should have extensive experience on urban transport planning and management, vehicle technologies, or energy, with a focus on electric mobility. S/he must have effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, financial sectors, private entrepreneurs, technical groups and communities. S/he should have ability to effectively coordinate a complex, multi-stakeholder project and to lead, manage and motivate teams to achieve results. Good capacities for strategic thinking, planning and management and excellent communication skills both in Spanish and English are essential. Experience in the implementation of gender action plans within transport projects will be an advantage.

4. Technical Specialist in Environment and GHG MRV (TS-2)

Duties and Responsibilities:

The incumbent will be responsible for implementation of the Outcome 1, including assistance to mobilize all component resources, and supervision of consultants and sub-contractors. Under the direction of the PM, the TS-2 will liaise with the national and local governments, UNDP, and all stakeholders involved in the Outcomes 2 and 3 of the project. She/he will be specifically responsible for:

- (a) Working closely with stakeholders to ensure delivery of outputs and outcomes as per project document and work plan.
- (b) Ensuring technical, legal and institutional coordination of both components in close collaboration with the PM.
- (c) Organize and conduct key actions for data and information collection and stakeholder consultations.
- (d) Estimate of indicators for monitoring, reporting and evaluation of component 1.
- (e) Assisting in mobilizing all component inputs in accordance with UNDP procedures and GEF principles.
- (f) Drafting ToR for consultants and subcontractors and coordinating with the PM for recruitment, procurement and contracting.
- (g) Supervising and coordinating the work of all component staff, consultants and sub-contractors.
- (h) Ensuring management of component funds consistent with UNDP requirements, and budget planning and control.
- (i) Assisting the PM in the preparation of timely submissions of monthly reports, quarterly consolidated financial reports, quarterly consolidated progress reports, annual, mid-term and terminal reports, and other reports as may be required by UNDP.
- (j) Assisting the PM in the submission of progress reports and key-issues reports to the PB.
- (k) Assisting the PM in the regular input to UNDP corporate system ATLAS for financial and programme management on component progress, financial status and various logs
- (l) Arranging component audits for each fiscal year.
- (m) Undertaking other activities as assigned by the PM.

Qualifications and Experience:

The incumbent should hold a professional degree in Engineering, Environmental Sciences or other relevant academic discipline, with at least five (5) years of professional experience. S/he should have extensive experience on climate change mitigation, the urban environment, public policies, and collaborative planning processes. S/he must have effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, financial sectors, private entrepreneurs, technical groups and communities. S/he should have ability to effectively coordinate a complex, multi-stakeholder project and to lead, manage and motivate teams to achieve results. Good capacities for strategic thinking, planning and management and excellent communication skills both in Spanish and English are essential. Knowledge of

UNDP project implementation procedures, including procurement, disbursements, reporting and monitoring, as well as familiarity with UNFCC contents and IPCC guidelines will be an advantage.

5. Technical Specialist in Economics (TS-3)

Duties and Responsibilities:

The incumbent will provide economic, financial and legal assistance for project implementation, with a focus on Outcomes 1 and 2, including assistance to mobilize all component resources, and supervision of consultants and sub-contractors. In close cooperation with the PM, and with TS-1 and TS-2, She/he will be specifically responsible for:

- (a) Providing economic and financial expertise to the project actions.
- (b) Supporting public transport operators (PTOs) for the implementation of quality plans.
- (c) Supporting transport operators in the preparation of business plans on the deployment of electric mobility
- (d) Developing legal and economic expertise for the reform of the current framework for public transport, including subsidies, quality control and authorizations.
- (e) Ensuring the general legal, economic and institutional consistency of the actions and proposals implemented under the various project components, in close collaboration with the PM.
- (f) Assisting in mobilizing all component inputs in accordance with UNDP procedures and GEF principles.
- (g) Drafting ToR for consultants and subcontractors and coordinating with the PM for recruitment, procurement and contracting.
- (h) Ensuring management of component funds consistent with UNDP requirements, and budget planning and control.
- (i) Assisting the PM in the preparation of timely submissions of monthly reports, quarterly consolidated financial reports, quarterly consolidated progress reports, annual, mid-term and terminal reports, and other reports as may be required by UNDP.
- (j) Assisting the PM in the submission of progress reports and key-issues reports to the PB.
- (k) Arranging component audits for each fiscal year.
- (l) Undertaking other activities as assigned by the PM.

Qualifications and Experience:

The incumbent should hold a Bachelor degree in Economics, and at least five (5) years of professional experience. S/he should have experience in legal regulations for urban transport, including the planning cycle, transport economics and business management. S/he must have effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, financial sectors, private entrepreneurs, technical groups and communities. S/he should have ability to effectively coordinate a complex, multi-stakeholder project and to lead, manage and motivate teams to achieve results. Good capacities for strategic thinking, planning and management and excellent communication skills both in Spanish and English are essential. Knowledge of UNDP project implementation procedures, including procurement, disbursements, and reporting and monitoring will be an added advantage.

6. Technical Specialist in Urban and Regional Planning (TS-4)

Duties and Responsibilities:

The incumbent will be responsible for implementation of the Outcomes 2 and 3 including assistance to mobilize all component resources, and supervision of consultants and sub-contractors. Under the direction of the PM, the CM will liaise with the national and local governments, UNDP, and all stakeholders involved in the Outcomes 2 and 3 of the project. She/he will be specifically responsible for:

- (a) Provide technical guidance on planning of public transport networks.
- (b) Present best practices on the integration of land-use and urban transport planning, and identify implementation opportunities in Montevideo.
- (c) Assist local authorities in preparing amendments to land use plans in accordance with integration guidelines.
- (d) Monitor immediate impacts of land use changes and traffic flow patterns resulting from sustainable urban transport measures implemented in Montevideo, to be shared with the appropriate stakeholders.
- (e) Develop alternatives for street design guidelines in major corridors in Montevideo, with a priority to pedestrians and other sustainable transport modes.
- (f) Develop material for dissemination of project results and networking with other major cities in the country.
- (g) Provide technical assistance and conduct interaction with the beneficiaries for the development and implementation of Mobility Plans in the four pilot companies, with the support of TS-1.
- (h) Serve as the key facilitator in strategic planning sessions on SUT development;
- (i) Provide summary of key strategic planning points.

- (j) Serve as key facilitator during workshops where SUT experiences are shared.
- (k) Assisting in mobilizing all component inputs in accordance with UNDP procedures and GEF principles.
- (l) Drafting ToR for consultants and subcontractors and coordinating with the PM for recruitment, procurement and contracting.
- (m) Supervising and coordinating the work of all component staff, consultants and sub-contractors.
- (n) Ensuring management of component funds consistent with UNDP requirements, and budget planning and control.
- (o) Assisting the PM in the preparation of timely submissions of monthly reports, quarterly consolidated financial reports, quarterly consolidated progress reports, annual, mid-term and terminal reports, and other reports as may be required by UNDP.
- (p) Assisting the PM in the submission of progress reports and key-issues reports to the PB.
- (q) Arranging component audits for each fiscal year.
- (r) Undertaking other activities as assigned by the PM.

Qualifications and Experience:

The incumbent should hold a Bachelor degree in Architecture, Geography, City Planning, Economics or other field closely related to urban and regional planning, with at least five (5) years of professional experience. S/he should have extensive experience on urban planning and management, collaborative planning processes, transport-land use relationships and mobility management. S/he must have effective interpersonal and negotiation skills proven through successful interactions with all levels of project stakeholder groups, including senior government officials, financial sectors, private entrepreneurs, technical groups and communities. S/he should have ability to effectively lead and coordinate project component 3. Good capacities for strategic thinking, planning and management and excellent communication skills both in Spanish and English are essential. Knowledge of UNDP project implementation procedures, including procurement, disbursements, reporting and monitoring, as well as to the integration of climate change challenges in urban policies will be an advantage.

Detailed TORs will be developed during the Project Inception period, in the first 3 months after project start-up, by the PM in consultation with UNDP and the implementing partners.

ANNEX F: UNDP SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE (SESP) TEMPLATE

Project Information

Project Information	
1. Project Title	Towards a sustainable and efficient urban mobility system in Uruguay
2. Project Number	5802
3. Location (Global/Region/Country)	Uruguay

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

The project design is structured around the principle of considering accessibility and mobility rights as a key dimension of equity in Montevideo. A transport system must empower citizens to reach services and to seize socioeconomic opportunities in the metropolitan area without barriers. Accordingly, the project's approach to the sustainable mobility paradigm to be implemented in Montevideo is putting affordable public transport and non-motorized modes at the center of the transport policy-making process.

The availability, accessibility, affordability and suitability of the transport system to the needs of all users, and particularly of marginalized groups, has been mainstreamed in the project design through an innovative focus on the improvement of public transport quality, which will be addressed in the project through a collaborative approach taking into consideration the variety of social groups (and their needs) in Montevideo; the project design built upon previous UNDP's activities in this field and upon inputs from a variety of experts and social groups through workshops during project preparation.

The project design stage highlighted the many pervasive barriers to change from private cars to other modes; many citizens in Montevideo perceive car use as a symbol of personal freedom; in order to cope with this, a "cultural change" component has been included in the project, in order to encourage a wider perspective linking mobility to key values such as the environment, public health and social cohesion.

Stakeholders have been actively engaged in project design since the PIF stage, including for example small and medium-size public transport operators and freight delivery firms, so that the new technologies to be demonstrated can be known and accessed by all market players, and not only by the big ones.

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

The project has been designed to empower women and to improve gender equality through all its components. Gender issues in transport have been analyzed during project design from two perspectives:

- (1) Mobility data shows that women, as city residents, suffer from a transport system designed and managed with a priority to cope with the mobility needs of those using private cars and making mainly home-to-work trips. However, women do not have as much access to private cars as men do in Montevideo, and their mobility patterns are far more complex, as many family-related activities (shopping, care of children and elderly, etc.) are not fairly shared between men and women. The project adopts a "reverse design approach", giving priority in policy making to non-motorized modes and to public transport, and mainstreams consideration of users' needs outside peak hours and beyond home-to-work radial transport flows. Furthermore, the project's approach to public transport quality is based on a collaborative concept, so that the concerns of thus far neglected users (and particularly women of different age, residence and background) can be fully taken

into consideration. IN fact, thee priority accorded by the project to public transport and non-motorized transport modes is expected to mainly favor benefit women, as they represent 57% of public transport users and 52% of pedestrians. A friendlier transport system, better adapted to women’s expectations and needs is expected to facilitate access to socio-economic opportunities and to sustain women’s empowerment.

- (2) Female access to jobs in the transport sector. Current (and mostly “invisible”) barriers to jobs in the transport sector for women have been discussed during project design, and a pro-active strategy has been agreed, so that the introduction of electric vehicles (EVs) will be combined with a priority for women to get involved in the new jobs linked to EV use and maintenance in the companies associated with the project pilots. The project should facilitate further streamlining of policies to facilitate the access of women to jobs in the transport sector based on these pilots and replication activities throughout public transport operators and freight delivery companies.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The environmental sustainability of the project has been mainstreamed during project design at three main levels:

- (1) The main focus of the project is the reduction of GHG emissions from urban mobility. The project has been designed to probe the potential of innovative actions to achieve substantial GHG emission savings, with huge replication potential. Its implementation should probe the feasibility and affordability of alternative mobility solutions, and will facilitate the reform of the institutional and regulatory framework, in order to facilitate the transition to low-carbon mobility in Montevideo and other cities. The project design aims at creating a wide supporting platform for the implementation of a revised regulatory and institutional framework, including a sound system of taxes and incentives system supporting low-carbon mobility options compared to car use and to the use of fuel-consuming vehicles.
- (2) GHG emission reduction is associated to other benefits, mostly of a local nature, such as air quality improvement, noise reduction, and transport safety. The project will also highlight these dimensions, as they are critical to gain support from local decision makers (for replication) and from citizens at large.
- (3) Creating a more resilient transport system, better adapted to extreme weather events and future changes in climate. Cities with strong public transport systems and high share of non-motorized modes have proved to be less vulnerable to more stringent weather conditions (such as heavy rain, heat waves or floods). The project design focus on public transport quality is expected to also provide gains in resilience, as at the design stage questions such as reliability and robustness have been at the core of the discussions with public transport operators and experts.

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks?</p> <p><i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks?</p> <p><i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i></p>			<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
<p>Risk Description</p>	<p>Impact and Probability (1-5)</p>	<p>Significance (Low, Moderate, High)</p>	<p>Comments</p>	<p>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</p>
<p>Environmental impacts of EV batteries: Uncertain options for lit-ion batteries after their service life.</p>	<p>I = 3 P = 2</p>	<p>Moderate</p>	<p>One of the main challenges of mass commercialization of lithium-ion batteries for urban transport is the development of specialized services for disposal and recycling. Additionally, as the market is still unexplored, the specific impact and overall profitability of private investments are unknown.</p> <p>The number of EVs in the project is low (5 buses, 6 vans), which limits significantly the impacts in terms of magnitude, but the project has to define appropriate mitigation actions consistent with its ambition to expand EV use after project termination.</p>	<p>ESMP has been developed, and will be implemented and monitored during the course of the project.</p> <p>Environmental hazards associated to lithium-ion batteries largely depend on the materials used by the cells, with those using nickel and cobalt having the highest potential for environmental risks associated to mining, global warming, environmental pollution and human health impacts, in accordance with the USEPA (Application of LifeCycle Assessment to Nanoscale Technology:Lithium-ion Batteries, April 2013). Accordingly, one initial measure is to request from EV manufacturers a complete description of the components uses in their batteries.</p> <p>The project has been designed to review mitigation options and to recommend appropriate regulatory measures to the government. Mitigation options within the project will include two alternative concepts: reuse and recycling; both are being actively explored by battery and EV manufacturers, who will be associated to the project. Provisional storage of batteries will also be explored within the project, as reuse and recycling require large quantities of batteries to be processed.</p> <p>Re-use of batteries for energy storage, compensating for day/night fluctuations in demand is a promising option. Recycling of Lit-ion batteries is also feasible, although its economic profitability depends on the secondary materials used. The project will review the options available around the world, in close contact with the EV manufacturers, and will propose the best alternatives of regulation of battery re-use, recycling and disposal.</p>

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>	QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>			QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</i>
<p>Reduced PT affordability: Improved quality of public transport will require more resources and could result in an increase of fares, reducing its affordability for a part of the population.</p>	<p>I = 3 P = 1</p>	<p>Low</p>	<p>In accordance with UNDP(2012), public transport in Montevideo is mostly used by women and by those in the lower income quintiles. Although higher quality is likely to result in higher operational costs, there is scope for efficiency gains, and the system has successfully cope with affordability challenges in the past, thanks to a robust system of subsidies and special fares; furthermore, an increase in quality should provide more users to the system, improving its financial robustness.</p>	

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>	QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>			QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
Employment loss: Current PT workers unable to adapt to the new electric technology.	I = 3 P = 1	Low	The deployment of electric buses in the city will result in changes in the expertise required for vehicle maintenance and- to a lesser extent- driving. The still limited experience in this field around the world (e.g. the ZeEUs project), suggests that maintenance needs (particularly in-house) are expected to decrease, and that driving conditions become less stressful, with no particular difficulties for drivers to adapt.	
Increased vulnerability of the transport system to changes in climate and extreme weather events	I = 2 P = 1	Low	Current resilience of the transport system is not expected to decrease by the project action, as EVs’ reliability is similar to that of conventional vehicles.	
	QUESTION 4: What is the overall Project risk categorization?			
	Select one (see SESP for guidance)			Comments
	Low Risk <input type="checkbox"/>			

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>		QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?	
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.	
			Moderate Risk	<input checked="" type="checkbox"/>	The overall project risk is categorized as “moderate”, due to the significance of the environmental impacts associated to the disposal of EVs’ batteries. This environmental challenge is being addressed at the global levels, and all EV manufacturers are actively engaged in the deployment of long term solutions including reuse and recycling. Therefore, there should be no major difficulties for Uruguay to get integrated in what is likely to be a global (or at least regional) life-cycle management system. However, as such a system has not been implemented yet, the project has adopted a conservative approach and will introduce its own mitigation measures.
			High Risk	<input type="checkbox"/>	
		QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?			
		Check all that apply		Comments	
		Principle 1: Human Rights		<input type="checkbox"/>	
		Principle 2: Gender Equality and Women’s Empowerment		<input type="checkbox"/>	
		1. Biodiversity Conservation and Natural Resource Management		<input type="checkbox"/>	
		2. Climate Change Mitigation and Adaptation		<input type="checkbox"/>	
		3. Community Health, Safety and Working Conditions		<input type="checkbox"/>	

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>		QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			4. Cultural Heritage	<input type="checkbox"/>
			5. Displacement and Resettlement	<input type="checkbox"/>
			6. Indigenous Peoples	<input type="checkbox"/>
			7. Pollution Prevention and Resource Efficiency	<input checked="" type="checkbox"/>
				The project design has to address the challenges of management and disposal of batteries at their end of their life, to avoid potential environmental hazards.

Final Sign Off

Signature	Date	Description
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	NO
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ⁴⁹	YES
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	NO
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	NO
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	NO
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	NO
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	NO
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	NO
Principle 2: Gender Equality and Women’s Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	NO
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	NO
3. Have women’s groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	NO
4. Would the Project potentially limit women’s ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	NO
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below	
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	

⁴⁹ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to “women and men” or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	NO
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	NO
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	NO
1.4	Would Project activities pose risks to endangered species?	NO
1.5	Would the Project pose a risk of introducing invasive alien species?	NO
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	NO
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	NO
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	NO
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	NO
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	NO
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	NO
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant ⁵⁰ greenhouse gas emissions or may exacerbate climate change?	NO

⁵⁰ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	YES
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	NO
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	NO
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	NO
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	NO
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	NO
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	NO
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	NO
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	NO
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	NO
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	NO
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	NO
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	NO
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	NO
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	NO

5.3	Is there a risk that the Project would lead to forced evictions? ⁵¹	NO
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	NO
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	NO
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NO
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	NO
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	NO
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	NO
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	NO
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NO
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	NO
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	NO
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts ?	YES
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	YES
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs?	NO

⁵¹ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

<i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	
7.4 Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	NO
7.5 Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	NO

ANNEX G: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

1. Scope and general approach

The Environmental and Social Management Plan (ESMP) provides a set of mitigation, monitoring and institutional measures, as well as the actions needed to implement these measures- to achieve the desired social and environmental sustainability outcomes.

The level of detail and complexity of the ESMP, and the level of detail of the identified measures and actions is aligned with the project's risks and impacts identified during the screening process (SESP, Annex F). The impacts identified at the SESP were the following ones:

- Environmental impacts: associated to the disposal of the batteries used by the new electric vehicles, as there are currently no regulations for the treatment of those components.
- Social impacts: associated with the future cost and affordability of the public transport system, in case electric buses and higher quality standards are implemented.
- Social impacts: associated with a relatively quick transition from current ICE vehicles to electric vehicles in the public transport system, leaving some workers (particularly those in charge of maintenance tasks) with a professional know-how of decreasing value and with the challenge to get familiar with the new technology.
- Environmental impacts: reduced resilience of the public transport system to changes in climate and to extreme weather events, as a consequence of the introduction of new vehicle technologies and of new quality plans.

All the risks above were assessed as low, except for the one regarding battery disposal. The ESMP reviews the latter through the following sections: social and environmental impact mitigation, monitoring, capacity development, stakeholder engagement, and implementation action plan.

2. Social and environmental impact mitigation

Lithium-ion batteries have consolidated as the standard for electric vehicles. The relatively long life of these batteries (more than 10 years) and the small pace of expansion of electric vehicles explain why there are no regulations available yet on the disposal of these batteries at the end of the vehicle life (or before, if batteries are replaced in the vehicle).

EV manufacturers are currently addressing this challenge exploring two basic options: (1) recycling of batteries and (2) reuse of batteries. Recycling looks as an attractive option, as it can build upon the experience from use of lithium-ion batteries in other sectors, but it faces some critical challenges:

- The profitability of recycling activities depend on the materials obtained, and mainly cobalt. The fact is that battery manufacturers for EVs are trying to avoid the use of cobalt and other expensive materials, as a way to reduce battery (and EV) costs. This could make the attractiveness of the recycling business uncertain, or at least to reduce it to those vehicles using certain types of batteries.
- Compared to the simplicity of recycling for lead batteries, with just a few relatively big pieces easy to separate, lithium-ion batteries are more challenging, as they are built from hundreds and even thousands of cells, and have significant weight (over 500 kg).

Current focus is on safe collection and storage of batteries at the end of their life, as their number is not big enough yet to justify recycling at a large scale. It can be foreseen that recycling activities will be centralized in some countries, with batteries being exported to them.

Reuse of batteries appears as a feasible option, as at the end of the life of the electric vehicle, batteries should not have lost more than 30% of their initial energy storage capacity. Battery repurposing plants could be envisaged to prepare batteries for their second life in stationary or high capacity installations such as grid services or residential use, or to reuse in other vehicles (e.g. hybrids, bikes), depending on their actual conditions.

At any rate, it seems necessary for the project to address this challenge. Otherwise, the expansion of electric vehicles in Uruguay could be associated to growing environmental hazards, with batteries of not well-known composition being informally used for

domestic or industrial purposes, or being scraped without proper training to obtain the few profitable components they contain.

The main mitigation measure adopted by the project is the dedication of one specific activity within its component #1 addressing this challenge and providing as a result a proposal for the implementation of adequate regulation for the treatment of electric vehicles (and particularly of lithium-ion batteries) at the end of their life.

The second environmental risk refers to the potential increase in the vulnerability of the transport system (and particularly of the public transport system) in Montevideo due to the implementation of the project and, mainly, to the deployment of electric vehicles in the future. The vulnerability of the transport system would be a consequence of the growing dependence of the public transport system on the electric grid for daily charging of the EVs. The project design has addressed this challenge with two main avoidance actions:

- The first action refers to the project outcome on improved public transport quality. Reliability of the system is at the core of the quality concept so that, in order to gain reliability, the project will support IM and PTOs in identifying cost-efficient measures to gain robustness.
- The second action refers to the project collaboration with UTE to define a reliable charging system for a growing fleet of electric buses and other EVs, included within project output 2.3.

Two social impacts were identified at the screening stage (Annex F). The first one refers to the affordability of public transport: As the project risk of public transport fares to raise in order to cope with the potentially higher costs of a public transport system of higher quality, as defined by project outcome 1.2 (Modal share of public transport increased, and quality control improved). At the risk screening stage, this risk was assessed as low, as it has a low probability due primarily to the robustness of the financing system already in place; indeed, the government put in place in 2006 a subsidy fund based on gasoil taxes which has been effective in keeping PT fares affordable since then; furthermore, a system of discount fares for targeted groups such as students and senior citizens. This means that the system already has mechanisms to provide additional financing to the PT system and to target subsidies on particular social groups. Furthermore, the expanding use of the e-ticketing system (STM cards) makes it easier for the PT authority to implement changes in the fare structure, so that future raises in fares can be implemented with limited impact on low-income users. At any rate, it is worth noticing that the theory of change at the basis of the project is anticipating a rise in the number of PT users, which should more than compensate any increase in the operation of the system, at least in the mid and long-range. This is also the expected impact of the introduction of electric buses, with significantly lower operational costs which should compensate for their higher upfront procurement costs, and with a prospect of decreasing tag prices, as the technology expands globally.

Nevertheless, the project design has included some mitigation actions in this regard. Firstly, the project includes action to revise the current subsidy scheme, in order to better align it with the new objectives of facilitating the transition towards EVs and of increasing quality with a focus on the needs of vulnerable groups. Secondly, the improvement of PT quality is addressed by the project through a collaborative process, in which the needs of vulnerable groups will be given priority, and in which quality agreements between the public transport authority and PTOs are expected to result in better targeting the subsidies received by the latter on precise targets through an array of incentives and disincentives leading to more efficient practice, as has been the case in many cities around the world through quality plans and programme contracts.

The second social impact identified relates to employment: the capacity of workers currently employed in the transport sector to adapt to the new technology of EVs. Current experience shows that EVs do not pose any particular technical challenges for drivers. It can be otherwise for maintenance workers, as they will have to be trained in the new technology, and their professional experience will be of limited value once EVs account for most of the vehicles in the targeted fleets. However, the relevance of this impact is limited by the fact that the transition to the new technology is expected to be made at a moderate pace, probably taking more than one decade.

Mitigation measures identified in the project relate to capacity building for transport workers in the new technology. This is addressed within project component #2 (Demonstration technological options in Montevideo), and more particularly within project output 2.3 (Business models for optimal expansion and operation of electric fleets, including recharging options). Within

the “business models” the following actions are expected to be implemented by the project team in collaboration with the participating transport companies (PTOs and freight deliverers):

- Training plans for drivers of EVs, in order to optimize performance.
- Maintenance plans for EVs in the fleet, including the identification of in-house and externalized maintenance services and training of personnel for in-house maintenance.
- Revision of working practices within the participating companies, in order to establish a working environment equally friendly to men and women.
- Revision of recruiting practices, making the transport sector more appealing to young people, and particularly for women.

3. Monitoring

Monitoring can be undertaken during the project life, including not only the 11 vehicles envisaged in the pilots but also other EVs already under operation in Uruguay (mainly the EV-van fleet owned by UTE) or to be introduced in the future. Monitoring should include (1) an exhaustive description of the components of the lithium-ion battery, (2) current commitments (if any) accepted by vehicle manufacturer, vehicle provider and owner, and (3) annual confirmation about the serviceability of the vehicle, or about the final destination of the battery if the EV has reached its end of life.

Regarding the vulnerability of the public transport system, PTOs and IM keep regular records on vehicle availability, schedule compliance and other quality-related KPIs, including service provision during storms and other extreme weather events in the past. UTE has also records on disruption events in the electric grid. The project will support these stakeholders in defining future quality targets on these topics.

For PT affordability, monitoring is already being conducted by IM through two basic indicators: the number of tickets sold for each fare category, and the cost of the most popular tickets related to the minimum salary in Montevideo.

For impact on jobs, all the participating companies already have information on their workforce, including gender, educational background and tenure for the different job categories.

4. Capacity development

The current regulatory framework in Uruguay already addresses cycle-life management for regular batteries or used tires. Decree 373/003 regulates management of lead batteries, requesting manufacturers and importers to prepare and to implement a master plan for the final disposal of batteries, including an official registry at the National Directorate for the Environment (*Dirección Nacional de Medio Ambiente*); Decree 358/015 provides a similar regulation for used tires.

The project will build upon this experience to support capacity building within MVOTMA for the regulation and management of lithium-ion batteries used by EVs. One of the members of the project team, based at MVOTMA, will be in charge of the relevant project actions in order to monitor current management of batteries (for the few EVs in operation in Uruguay), develop adequate regulations in collaboration with relevant stakeholders (such as manufacturers and importers), and defining the resources needed for adequate management by MVOTMA.

Capacity development on resilience is embedded within the project efforts to develop a control system to support gains in public transport quality. As the quality control system and the PT fares structure becomes more sophisticated, it will be necessary for the PT authority (IM) and PTOs to adapt to the new context. The project design includes the provision of technical support within outcome 1.2, so that the project team includes two professionals partly working on these issues, one from an economic perspective and another one from a social perspective.

Training on EV technology will be required for drivers and maintenance personnel in the participating companies. Training activities are expected to be included within the procurement process, and will be provided by EV manufacturers. The project will support the training effort, helping companies to establish their own training programmes as part of the business plans to be developed for further expansion of EVs beyond the project termination.

5. Stakeholder engagement

The key stakeholders engaged are EV manufacturers and importers. All EV manufacturers are currently exploring different disposal options globally, relying on both, reusing and recycling activities. In all cases, manufacturers are planning to manage batteries globally as, contrary to lead batteries, disposal activities require a large number of units to be financially feasible. In this sense, the project will keep close contact with manufacturers and importers, so that Uruguay can be integrated within the regional or global management plans under development.

For PT quality (including resilience), the project design includes stakeholder engagement at two levels: on the one hand, the project will facilitate the discussion and negotiation between IM and national government and the PTOs, providing the necessary technical support, best practice and lessons learned worldwide as required; on the other hand, the project will support IM in getting vulnerable groups engaged through a collaborative decision-making process.

The project also foresees strong engagement of PTOs and freight delivery companies for the introduction and testing of EVs, including training needs and potential employment impacts. This is coupled by the project's focus on creating new opportunities for women to access jobs in the transport sector.

6. Implementation action plan

The project document has included output 1.3 (Identification of available technologies and alternatives for regulation of battery re-use, recycling and disposal) within its work programme. This output will be developed from the first quarter of project year 3 until the second quarter of project year 4, and should address the following actions:

- State of the art: review of current disposal practices by EV manufacturers.
- Working group to review options, in cooperation with EV providers involved in the project.
- Study on alternatives for provisional storage after project completion.
- Recommendations on regulation and management.

On the other hand, project outputs 2.1 and 2.2 (test of electric buses and electric vans, respectively, both scheduled in project year 2) should include during the procurement stage consideration on the minimum disposal commitments to be required from manufacturers and importers. Some experience in this field can be provided by one of the project stakeholders, UTE, who is already operating a small fleet of electric vans in the country.

The project design includes two main avoidance actions regarding the vulnerability of the public transport system to changes in climate and to extreme weather events:

- The first action refers to project outcome 1.2 (Modal share of public transport increased, and quality control improved). Reliability of the system is at the core of the quality concept so that, in order to gain reliability, the project will support IM and PTOs in identifying cost-efficient measures to gain robustness.
- The second action refers to the project collaboration with UTE to define a reliable charging system for a growing fleet of electric buses and other EVs, included within project output 2.3.

On PT quality and its potential social impacts, the project has included the following actions within outcome 1.2 (Modal share of public transport increased, and quality control improved):

- Project output 1.6 (Definition of key performance indicators (KPI) for quality control of public transport services, supported by a new traffic control center). The selection of KPI is an essential stage for defining quality priorities for the transport system. Accordingly, this project output is expected to support the decision-making process through the involvement of vulnerable users and the provision of technical support to stakeholders, with a focus on best experience available from other cities.
- Project output 1.7. Identification of improvement measures (fares, information...) and development of quality control systems with public transport operators. Project activities will aim at providing support for sound economic assessment of options available.
- Project output 1.8. Alternatives to current regulations and incentives for financing the public transport system, including low-carbon and quality aspects. Project activities will aim at building capacity within the governmental bodies involved and providing technical support for the adaptation of the already robust financing system in place to the new challenges of improved quality and electrification.

The project includes the following actions within its component #2 (Demonstration of technological options in Montevideo), regarding management of job-related risks:

- At the pilot level, the project design includes the procurement of electric buses and vans. The procurement process will include the provision of adequate training activities and materials by the manufacturer/provider, so that the companies involved in the pilot will be able to train the personnel assigned to the operation and maintenance of the EVs, and to design their own internal training procedures in future.
- At the deployment level, the project will support participating companies in defining their business models for an optimal expansion and operation of their electric fleets in the future. This will include notably questions such as recruitment strategies (with a focus on gender issues), internal maintenance needs, and capacitation of their professional staff to be able to work with the new technology.

It is worth highlighting that the participating companies provide a wide variety of corporate cultures, management practices and ownership, such as general or limited partnerships, worker cooperatives or public companies. The project will support all of them in the preparation of their business plans and will produce guidance for other companies, not involved in the project, to facilitate their transition to electrification, including recommendations on challenges related to their human resource management.

ANNEX H: PROJECT GHG EMISSIONS CALCULATIONS

1. General approach

The calculation of the project's GHG emissions follows the guidance of the GEF's "Manual for calculating greenhouse gas benefits of Global Environmental Facility Transportation Projects".

Most of the actions included in the project are not directly addressed by the TEEMP models available. To cope with this limitation, two different estimates have been made: the first one makes use of TEEMP models, whereas the second one tries to build upon local experts' judgement during project preparation.

In both cases, the project's actions considered have been:

- Direct impacts of transport efficiency, due to (1) introduction of electric buses; (2) introduction of electric vans; (3) eco-labelling of private cars.
- Direct impacts of public transport quality improvements.
- Direct impacts of support to non-motorized transport options.
- Direct impacts of transport demand management actions.

These actions have been assessed individually, without considering potential synergic effects among them. This is in line with the Manual's recommendation to adopt a conservative approach to calculate impacts, wherever the factual basis to undertake a quantified assessment is not available.

2. Calculations based on TEEMP models

2.1 Transport efficiency

The direct effects are limited to the 5 electric buses and 6 electric delivery vans that will be procured and tested during the project life. These vehicles will replace existing ones.

Following the GEF's Manual, the estimate of saved CO₂ emissions is based on the fuel saved, as indicated in:

$CO_2 \text{ direct} = E * c = e * I * c$, with

$CO_2 \text{ direct}$ = direct GHG emission savings of successful implementation in CO₂ eq, in tonnes

E = cumulative fuel or energy saved or substituted, e.g., in volume/mass of fuel used (or MWh if electric); $E = \sum I * e$

c = CO₂ intensity of fuel/ energy

e = annual fuel/energy replaced, e.g., in volume/mass of fuel used (or MWh if electric)

I = average useful lifetime of equipment in years

Although local operators have confirmed that the lifetime of current PT buses in Montevideo are above 10 years, and manufacturers have confirmed that the lifetime of electric vehicles (including batteries) can reach 12-13 years, the Manual's criteria has been kept, and emissions have been computed considering a lifetime of 10 years for all vehicles.

The average fuel consumed annually for a standard 10.5-m long, diesel bus has been provided by public transport operators, together with the annual km travelled. As for the baseline trajectory, no relevant changes are expected in terms of fuel efficiency. Most urban buses in Montevideo are now using EURO-III technology; moving up to EURO-VI would not represent a change in terms of fuel efficiency, although it would reduce significantly NO_x and PM emissions. Current average age for buses is considered quite reasonable (8.5 years), so that the rate of replacement of older buses by new ones will be maintained, and not increased.

The average electricity consumption is 1.26 kWh/km. It has been provided by e-bus manufacturers, and is consistent with the test conducted by one of the PTOs since mid-2016.

In accordance with the emissions inventories provided by the government and the municipality of Montevideo, greenhouse gases other than CO₂ (i.e. N₂O and CH₄) by the transport sector represent only 2% of the total sector's emissions (once factored by their global warming potential). They have not be taken into consideration in this estimate.

The average distance travelled annually is 80,000 km. This figure is compatible with the maximum range of electric buses without recharging (250 km per day). Their average fuel consumption is 40 liters per 100 km, as reported by PTOs.

For the CO₂ intensity of fuel, the values provided by the TEEMP BRT model are applied for diesel fuel: 2.943 kg CO₂/ per liter of gasoil.

For the CO₂ intensity of electricity, the average grid emission factor, rather than the marginal emission factor, has been considered, due to the fact that e-bus recharging will be undertaken at night, when there is excess of electricity production capacity. The value provided by MIEM is 0.276 kg CO₂/kWh.

The resulting CO₂eq savings for the 5 e-buses are therefore:

$$\text{CO}_2\text{eq direct} = 5 * 80,000 * 10 * (40/100 * 2.943 - 1.26 * 0.276) = 5 * 663,706 \text{ kg CO}_2\text{eq} = \mathbf{3.319 \text{ kt CO}_2\text{eq}}$$

Similarly, for delivery vans the following parameters have been assumed:

Number of units: 6

Lifetime: 10 years

Average annual travel distance: 30,000 km

Average gasoline consumption: 7.3 liters per 100 km

Average gasoline emission factor (TEEMP BRT model): 2.754 kg CO₂/liter gasoline

Average electricity consumption for e-vans: 0.159 kWh/km

$$\text{CO}_2\text{eq direct} = 6 * 30,000 * 10 * (7.3/100 * 2.754 - 0.159 * 0.276) = 6 * 47,153 \text{ kg CO}_2\text{eq} = \mathbf{0.283 \text{ kt CO}_2\text{eq}}$$

2.2. Direct impact for the introduction of eco-labelling in cars

The introduction of new regulations requiring eco-labelling on fuel consumption and CO₂ emissions for new cars to be sold in Uruguay is expected to result in consumers making better informed choices, and an increasing number of options for high-efficient cars being offered by car dealers in the country.

The direct effects can be calculated following the GEF Manual's guidance for transport efficiency projects. The estimate of saved CO₂ emissions is based on the fuel saved, following the formula:

$\text{CO}_2 \text{ direct} = E * c = e * I * c$, with

CO₂ direct = direct GHG emission savings of successful implementation in CO₂ eq, in tonnes

E = cumulative fuel or energy saved or substituted, e.g., in volume/mass of fuel used (or MWh if electric); $E = \sum I * e$

c = CO₂ intensity of fuel/ energy

e = annual fuel/energy replaced, e.g., in volume/mass of fuel used (or MWh if electric)

I = average useful lifetime of equipment in years

Lacking precise guidance, any assumptions on the potential impact of the system on consumers has to rely on the experience in other countries. The European Union (EU) introduced the car-labelling system in 2002. Since then, the specific CO₂ emissions of new cars sold in the EU has been decreasing at an average of 1% per year, although with significant higher values in the first years (4%). This decrease can be due to a combination of several factors, mainly (1) the manufacturers' commitment to reduce the average emissions of their cars sold in the EU behind agreed levels, (2) fuel prices, making consumers more or less sensitive to fuel efficiency while choosing a new car, and (3) actual consumers' interest in reducing CO₂ emissions and purchasing more efficient vehicles. The scientific evidence available in this field is not conclusive⁵², but it suggests that eco-labelling has some impact on the consumer, particularly when the information provided focuses on fuel savings and provides a clear basis for

⁵² Haq, G., & Weiss, M. (2016). CO₂ labelling of passenger cars in Europe: Status, challenges, and future prospects. *Energy Policy*, 95, 324-335.

comparison. The Chilean government introduced such a system in 2013, but there is no quantitative information available on its impact thus far.

Based on this limited factual basis, a conservative assumption has been chosen for this calculation. The number of new passenger cars in Uruguay was increasing steadily until a peak of 57,333 units in 2013, and declined afterwards to 49,420 in 2015. An average for 50,000 vehicles per year has been adopted in this case. Haq and Weiss (2016) report that less than 40% of consumers are aware of and can correctly understand the information provided by eco-labelling systems, and that although fuel efficiency is one factor, many other issues are also taken into consideration. Lastly, it is relevant to note that the average size of passenger cars in Uruguay is probably (there is no reliable information available) lower than the EU average, which reduces the potential field for improving fuel efficiency (in fact, the opposite may be true, as Uruguayans may prefer to buy bigger cars in future, as a result of increasing available income). Taking all these considerations into account, it has been assumed that 5% of the consumers could be significantly influenced by eco-labelling information for their new vehicle purchase, resulting in a gain of 4% in vehicle efficiency. Assuming an average emission level of 180 g/km (i.e. 6.5 liters/100 km, which seems reasonable for a mixed car use including both, urban and interurban trips) for new vehicles and an average annual mileage of 15,000 km for new cars, the resulting savings would be:

$$\text{CO2 direct} = 50000 * 4\% * 5\% * 15,000 * 0.180 = 270,000 \text{ kg CO2} = 0.27 \text{ kt CO2}$$

The effect will be in place during the whole lifetime of each new vehicle purchased. Assuming a lifetime of 10 years for the newly purchased cars, and three years of implementation of the eco-labelling concept during the project lifetime (no eco-labelling implemented until project year 2), the total savings would be:

$$\text{CO2 direct} = 3 * 10 * 0.27 = 8.1 \text{ kt CO2.}$$

2.3. Direct impacts of public transport actions

The project is aiming at improving transit service, inducing modal shift. Service improvement is expected to be attained through the implementation of quality plans agreed between IM and PTOs. According to the information provided by PTOs in Montevideo, there is a number of issues for which IM is already monitoring service quality, such as fleet age, characteristics and operational conditions, compliance with the number of services scheduled, and line information at bus stop. There is significant room for improvement, though, in order to cover:

- Full compliance with schedules (delays, average speed, etc).
- Improved information provided to users (including real-time information).
- Comfort
- Safety
- Customers' assistance.

Some PTOs are already monitoring these characteristics for their internal management, but there are no standards agreed with IM, and no incentives to improve performance. The introduction of a quality control system agreed between IM and PTOs is expected to attract additional customers, and to prevent those already using PT to change to car use as soon as they can afford it.

The TEEMP model for public transport is focusing on mass rapid transit projects (BRT and rail), which are not considered in this case. However, it does include some elements to estimate additional passengers attracted to the improved PT system. This is the part of the model relevant for this case. The additional passengers are calculated by multiplying the affected (i.e. the PT users impacted by the quality improvement) times a multiplier that is tied to "System Type SF" (for "scaling factors") worksheet. The TEEMP model's assumption is that the maximum number of passengers that might be attracted for alternative modes is 25%. The "system Type SF" worksheet identifies all the different elements of a high quality mass transit system that are likely to affect ridership and attributes to them a value totaling up to a maximum score of 100; each point counts for a 0.25% ridership bonus.

The assessment of the BRT scorecard shows a system improvement of 29.2 points once a quality enhancement system has been implemented. The resulting ridership bonus factor is 1.0584. The trips newly attracted to PT are distributed among other transport modes in accordance with their respective modal split.

The number of trips between 2018 (implementation year of the system) and 2027 (so a 10-year period since implementation, as requested by the guidelines) is calculated based on the last reliable estimate (2009 travel survey), and applying a trip growing factor for each mode based on population growth (provided by official statistics: 0.48% average annual growth between 2009 and 2018 and 0.40% average annual growth between 2018 and 2027). The annual bus ticket sales reported by IM suggests that the number of public transport trips is not increasing since 2009, in spite of sustained metropolitan population growth; accordingly, the number of bus trips is kept constant until 2018, and the additional trips due to population growth not served by PT are assumed to be made by car. The resulting number of trips for a weekday is summarized on the table below.

	2009		2018		2027	
	Trips	Modal Split	Trips	Modal Split	Trips	Modal Split
Car	1096908	36,5%	1212908	38,7%	1335300	40,4%
2-wheelers (motorized)	224315	7,5%	234266	7,5%	246538	7,5%
Taxi	75248	2,5%	78586	2,5%	82703	2,5%
Other	467116	15,6%	487836	15,6%	513392	15,6%
Bus	1140277	38,0%	1123514	35,8%	1123514	34,0%
TOTAL	3003864	100,0%	3137110	100,0%	3301447	100,0%

Table H.1: Number of trips and modal split on a weekday

It is worth noticing that the TEEMP model assumes that population growth is automatically translated into trip growth for every transport mode, including PT buses. Therefore, the TEEMP baseline is assuming an annual growth in the number of bus trips related to population growth from 2018 on, instead of a stagnation in bus patronage, which would be more consistent with the trend in past years. This results in a significant (almost 100%) underestimate in the actual GHG emission saving reduction potential.

In accordance with the 2009 survey and with interviews with local experts at IM and PTO, the following average values have been applied:

Average trip distance (all motorized modes, one-way trip): 6 km.

Number of equivalent days per year: 254 (this is the result of dividing the total number of bus tickets sold in 2009 by the number of bus trips in a weekday provided by the 2009 survey).

Fuel type: all buses are considered as diesel vehicles. All other vehicles (cars, taxis, 2-wheelers) are considered as petrol vehicles (this is consistent with Uruguay's policy, with an additional custom tax on diesel vehicles and gasoil prices higher than those for petrol).

Average fuel consumption (@ 50 km/h): default TEEMP values (cars and taxis: 12.5 km/l; 2-wheelers: 55.56 km/l; bus: 3.57 km/l).

TEEMP emission factors (@ 50 km/h): Petrol: 2.42 kg CO₂/l; gasoil: 2.58 kg CO₂/l.

Average speed: based on values reported by IM for certain avenues (cars and taxis: 30 km/h; 2-wheelers: 25 km/h; bus: 18 km/h). Speed adjustment factors for final emissions are automatically applied by the TEEMP model.

Average occupancy (based on 2009 survey for cars and 2-wheelers). Cars: 1.57 passengers/car. 2-Wheelers: 1.20 passengers/vehicle. Taxis: not available (default TEEMP value, 2.38, assumed). Buses: 35 passengers/vehicle (10.5 m buses).

The calculated CO₂ savings per year are summarized in the table below

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
kt CO2	2.903	2.974	3.049	3.101	3.180	3.221	3.306	3.361	3.451	3.496	32.042

Table H.2: Emission savings estimated by the TEEMP BRT model

2.4. Direct impact of non-motorized transport components

The project will encourage modal change from cars and 2-wheelers towards non-motorized modes mostly through awareness-raising campaigns. Project’s actions will probably be coupled with IM policies to enhance the quality and walkability of public space and to expand the cycling network with additional reserved lanes in the next years, although the level of definition of IM’s actions is not advanced enough to allow for detailed modelling. The TEEMP model calculates emission savings by comparing two scenarios: the first one is the baseline or no-improvement scenario, in which the modal assumes that the walking share of trips decreases through time due to degradation of walking facilities coupled with raising motorization. The most recent information available on modal split in Montevideo comes from the 2009 mobility survey. It is worth noticing that the walking share in Montevideo (9.70%), is already below the minimum 10% threshold the TEEMP model considers for the baseline, which means that a 10% value is applied without any further decrease in time for the baseline.

The project scenario assumes that the walking trips share will rise through time. This increase will be defined as a final modal share distribution, in which both modes (walking and cycling) gain one percentage point in modal share whereas car use loses two percentage points.

The TEEMP model results in annual savings of 20.489 kt per year or 204.892 kt in 10 years. Obviously, modal change from cars to non-motorized modes are likely to take place in those trips with shorter distances. So instead of the average length of 6 km for cars, an average of 2 km is considered, which results in a reduction of the annual savings to one third of the values calculated by the model. Accordingly, the final CO2 emissions saving value retained will be 6.829 kt per year or 68.297 kt in 10 years.

2.5. Direct impact for travel demand management components

The profile of the Company Mobility Plans included in the project is similar to the “employer transport support program” category consider in the Guideline. The activities that the project is intending to do can be categorized as “level 3” conditions in the model, i.e.: provision of baseline information activities (transit fare and route information, rideshare matching, etc), availability of a half-time to full-time transport coordinator, provision of carpool matching services, work hours flexibility, and bike parking and associated facilities.

All the Company Mobility Plans will be conducted in companies and institutions with office space located in the city core, and it is expected that the total number of jobs in the participating companies will reach 15,000. There is no specific information available on current modal share for working trips in any of the targeted working places, but the 2009 survey can be taken as a reference: 36% of the trips for working reasons are made by car; furthermore, it can be assumed that virtually all those trips are made with one single occupant in the car (at least in the sense that only one of the vehicle occupants is working in that particular place).

The TEEMP model assumes that 5% of the trips currently made with a single-occupant vehicle (SOV) will be made by alternative, sustainable transport modes. Assuming a 12 km round trip, and average fuel consumption conditions, the annual emission savings would be 0.289 kt of CO2, or 2.890 kt in 10 years.

3. Summary of results for direct impacts

Project outcome	CO2 savings (kt)
Electric buses	2.789
Electric vans	0.236
PT quality improvement	32.042
Encouraging walking and cycling	68.297
Company plans	2.890

Project outcome	CO2 savings (kt)
Eco-labelling	8.100
TOTAL	114.930

Table H.3: Summary of direct emission savings

4. Estimate of Consequential Emission Savings

A bottom-up approach is applied for the estimate of consequential emissions in the 10-year period after project completion. The analysis of the factors considered in the GEF manual for each project action is reported on the table below.

Assessment Factors	E-buses	E-vans	Eco-labelling	PT Quality	Walking & Cycling	Company Plans
Market potential	Full fleet renewal in 10 years, with at least 5% with e-buses (1,528 buses is the whole fleet in Montevideo in 2016): 75 e-buses in Montevideo. 400 is the number of urban buses outside the metropolitan area in 2016, as estimated by MIEM: 20 e-buses in other cities	The number of vans in the country is large (around 35,400 in accordance with MIEM estimates), but only a fraction of them can be expected to be used by delivery companies mostly in urban environments. Actual market potential will be assessed during the project.	No room for replication beyond project life, unless more stringent emission standards are set in Uruguay	All cities with urban PT services in Uruguay. Population affected (16 cities above 20,000 inhabitants, excluding Montevideo and its metropolitan area: 793,227 inh (2011 census, approx.60% of metropolitan population)	Huge potential in other cities outside Montevideo, favored by their much smaller size, and the positive messages to local decision makers from the expected project results in the capital. The population affected in these cities (60% of that in Montevideo) could be twice as many, i.e 2 x 60% of metropolitan population.	Moderate, as the number of big office space centers (>200 jobs in office space) is not high in Montevideo; additional options (hospitals, universities...) will be considered to expand the market potential. 32 working centers have been identified, including 20 hospitals, universities, governmental offices and business centers in Montevideo and municipal and departmental offices in 12 other cities in Uruguay.
Project quality	High quality: availability and functionality of e-buses checked; economic advantages of e-buses	Moderate: the availability and functionality of e-vans has been checked, but its high cost is not compensated by reduced operational costs, unless an incentive package is set in place	High, based on previous work by MIEM and MVOTMA, and cooperation with Chile.	High, due to high commitment of IM and PTOs, and sound experiences in many cities.	Moderate: whereas the actions for cultural change are clear, and are supported by wide know-how in many cities, concrete actions by IM in favor on NMM are under discussion and have not been defined yet.	High: there is sound background on company mobility plans and excellent commitment from the stakeholders initially selected for the pilots.
Resources for replication	Replication activities included in the project, with governmental support to reach other cities and PTOs involvement	Replication activities to be defined during the project, as there is still limited information available on the potential of the measure and the number of final users.	No replication activities envisaged.	Replication activities included in the project, with governmental support to reach other cities	Replication activities included in the project, with governmental support to reach other cities	Replication activities based on the government's and IM's action to reach additional working centers for replication in Montevideo.

Assessment Factors	E-buses	E-vans	Eco-labelling	PT Quality	Walking & Cycling	Company Plans
Local co-benefits	Reduction of pollutants (mainly PM) and reduction of noise.	Reduction of pollutants (mainly PM) and reduction of noise; possibility of night delivery permits to e-vans, increasing logistics efficiency	Reduction of pollutants and improvement of air quality	Citizens' satisfaction, traffic reduction, air quality improvement, traffic safety improvement	Citizens' satisfaction, traffic reduction, air quality improvement, public health improvement (active mobility), traffic safety improvement	Employees' satisfaction, stress reduction, traffic safety improvement.
Probability of replication	High due to the synergies between environmental and economic advantages for PTOs, if access to financing makes the initial investment costs affordable	Uncertain, as most operators are SMEs with limited capacity for adopting innovative technologies, and investment costs are still high compared to ICE vans.	Low, as there are no concrete plans to implement more stringent regulations on emission levels or tax incentives in the future beyond the project completion.	High, as other cities in the country are likely to follow the capital's experience for introducing better contractual arrangements with PTOs including quality.	Very high, as the improvement of walking and cycling conditions is likely to require only easy-to-implement measures in other cities in the country, due to its much smaller size.	Moderate: the estimate is that the market potential is around 80 working centers in Montevideo and that 20% of them could be interested in joining.
Amount of project investment for replication	Satisfactory. Mostly linked to dissemination of pilots' results among PTOs and local authorities	Limited, as potential users are too many, difficult to reach, of small size, and with weak structures for cooperation and innovation	Not envisaged	Satisfactory. Mostly in-kind, from relevant stakeholders, for dissemination to other cities.	Satisfactory, mostly in kind from national government.	Satisfactory, mostly from national government and IM
Replication Factor	19	3	0	0.60	1.2	4

Table H.4: Assessment of bottom-up replication factors for consequential emission savings

The bottom-up estimate of consequential impacts is summarized in the table below.

Project outcome	CO2 savings (kt)	R.F.	CO2 savings, conseq. (kt)
Electric buses	2.789	19	52.991
Electric vans	0.236	3	0.708
PT quality improvement	32.042	0.60	19.225
Encouraging walking and cycling	68.297	1.2	81.956
Company plans	2.890	4	11.560
Eco-labelling	8.100	0	0.000
TOTAL	114.930		166.441

Table H.5: Summary of consequential emission savings

ANNEX I: LIST OF PEOPLE CONSULTED DURING PROJECT DEVELOPMENT

Martin Hansz	MTOP. Dirección General de Planificación y Logística
Virginia Staricco	MIRTRANS Uruguay
Pablo E. Cajade	SAKURA. HAGUERE S.A. Movilidad Eléctrica
Eduardo Bergerie	UTE
Diego Betancur	UTE
Fernando Costanzo	UTE
Máximo Oleaurre	Intendencia de Montevideo. División Transporte
Gonzalo Márquez	Intendencia de Montevideo. División Transporte
Paula Decia	Intendencia de Montevideo. División Transporte
Boris Goloubintseff	Intendencia de Montevideo. División Transporte
Fernando Alonso	Renault. Santa Rosa Automotores S.A.
Ignacio Deagostini	SAMSUNG Electronics
Federico Pais	SAMSUNG Electronics
Bernardo Lee	ZhengZhou Yutong Bus
Carlos Dalto	ZhengZhou Yutong Bus. División Sudamérica
Isaac Attie	BYD
Enrique Garabato	UCOT
Carlos Vecchio	COETC
Fernando Fernández	COETC
Eliseo Pires	COMESA
Marcelo Gargaglione	CUTCSA
Alejandro Veiras	CUTCSA
Humberto Marinoni	SCAME Uruguay
Luis Stevenazzi	PROSEPA
Virginia Varela	PNUD Uruguay
Magdalena Preve	PNUD
Verónica Luongo	PNUD
Diego Hernández	Universidad Católica del Uruguay
Rossana González	MIEM. D.N. de Energía
Emiliano Cardona	MIEM. D.N. de Energía
Antonella Tambasco	MIEM. D.N. de Energía
Rubén García	MIEM. D.N. de Energía
Olga Otegui	MIEM. D.N. de Energía
Ignacio Lorenzo	MVOTMA. D. de Cambio Climático
Paola Visca	MVOTMA. D. de Cambio Climático
Fernando Laco	TACU. Taller Autogestionario de Ciclismo Urbano
Ruth Weyer	

Carlos Bruno	
Sergio Rodríguez	TACU. Taller Autogestionario de Ciclismo Urbano
Emiliano Camarón	

ANNEX J: UNDP PROJECT QUALITY ASSURANCE REPORT

PROJECT QA ASSESSMENT: DESIGN AND APPRAISAL					
OVERALL PROJECT					
EXEMPLARY (5) ●●●●●	HIGHLY SATISFACTORY (4) ●●●●○	SATISFACTORY (3) ●●●○○	NEEDS IMPROVEMENT (2) ●●○○○	INADEQUATE (1) ●○○○○	
At least four criteria are rated Exemplary, and all criteria are rated High or Exemplary.	All criteria are rated Satisfactory or higher, and at least four criteria are rated High or Exemplary.	At least six criteria are rated Satisfactory or higher, and only one may be rated Needs Improvement. The SES criterion must be rated Satisfactory or above.	At least three criteria are rated Satisfactory or higher, and only four criteria may be rated Needs Improvement.	One or more criteria are rated Inadequate, or five or more criteria are rated Needs Improvement.	
DECISION					
<ul style="list-style-type: none"> • APPROVE – the project is of sufficient quality to continue as planned. Any management actions must be addressed in a timely manner. • APPROVE WITH QUALIFICATIONS – the project has issues that must be addressed before the project document can be approved. Any management actions must be addressed in a timely manner. • DISAPPROVE – the project has significant issues that should prevent the project from being approved as drafted. 					
RATING CRITERIA					
STRATEGIC					
1. Does the project’s Theory of Change specify how it will contribute to higher level change? (Select the option from 1-3 that best reflects the project): <ul style="list-style-type: none"> • 3: The project has a theory of change with explicit assumptions and clear change pathway describing how the project will contribute to outcome level change as specified in the programme/CPD, backed by credible evidence of what works effectively in this context. The project document clearly describes why the project’s strategy is the best approach at this point in time. • 2: The project has a theory of change. It has an explicit change pathway that explains how the project intends to contribute to outcome-level change and why the project strategy is the best approach at this point in time, but is backed by limited evidence. • 1: The project does not have a theory of change, but the project document may describe in generic terms how the project will contribute to development results, without specifying the key assumptions. It does not make an explicit link to the programme/CPD’s theory of change. <p><i>*Note: Management Action or strong management justification must be given for a score of 1</i></p>				<u>3</u>	2
				1	
				3 Evidence Project Document Section III	
2. Is the project aligned with the thematic focus of the UNDP Strategic Plan? (select the option from 1-3 that best reflects the project): <ul style="list-style-type: none"> • 3: The project responds to one of the three areas of development work⁵³ as specified in the Strategic Plan; it addresses at least one of the proposed new and emerging areas⁵⁴; an issues-based analysis has been incorporated into the project design; and the project’s RRF includes all the relevant SP output indicators. <i>(all must be true to select this option)</i> 				<u>3</u>	2
				1	
				3 Evidence	

⁵³ 1. Sustainable development pathways; 2. Inclusive and effective democratic governance; 3. Resilience building

⁵⁴ sustainable production technologies, access to modern energy services and energy efficiency,

<ul style="list-style-type: none"> • 2: The project responds to one of the three areas of development work¹ as specified in the Strategic Plan. The project's RRF includes at least one SP output indicator, if relevant. (<i>both must be true to select this option</i>) • 1: While the project may respond to one of the three areas of development work¹ as specified in the Strategic Plan, it is based on a sectoral approach without addressing the complexity of the development issue. None of the relevant SP indicators are included in the RRF. This answer is also selected if the project does not respond to any of the three areas of development work in the Strategic Plan. 	Project Document Sections II, III and VI	
RELEVANT		
<p>3. Does the project have strategies to effectively identify, engage and ensure the meaningful participation of targeted groups/geographic areas with a priority focus on the excluded and marginalized? (select the option from 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The target groups/geographic areas are appropriately specified, prioritising the excluded and/or marginalised. Beneficiaries will be identified through a rigorous process based on evidence (if applicable.)The project has an explicit strategy to identify, engage and ensure the meaningful participation of specified target groups/geographic areas throughout the project, including through monitoring and decision-making (such as representation on the project board) (<i>all must be true to select this option</i>) • 2: The target groups/geographic areas are appropriately specified, prioritising the excluded and/or marginalised. The project document states how beneficiaries will be identified, engaged and how meaningful participation will be ensured throughout the project. (<i>both must be true to select this option</i>) • 1: The target groups/geographic areas are not specified, or do not prioritize excluded and/or marginalised populations. The project does not have a written strategy to identify or engage or ensure the meaningful participation of the target groups/geographic areas throughout the project. <p>*Note: Management Action must be taken for a score of 1, or select not applicable.</p>	3 2 1	2 Evidence Project Document Section IV
<p>4. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design? (select the option from 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: Knowledge and lessons learned (gained e.g. through peer assist sessions) backed by credible evidence from evaluation, corporate policies/strategies, and monitoring have been explicitly used, with appropriate referencing, to develop the project's theory of change and justify the approach used by the project over alternatives. • 2: The project design mentions knowledge and lessons learned backed by evidence/sources, which inform the project's theory of change but have not been used/are not sufficient to justify the approach selected over alternatives. • 1: There is only scant or no mention of knowledge and lessons learned informing the project design. Any references that are made are not backed by evidence. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	3 2 1	3 Evidence Project Document Sections II and III
<p>5. Does the project use gender analysis in the project design and does the project respond to this gender analysis with concrete measures to address gender inequities and empower women? (select the option from 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: A <u>participatory</u> gender analysis on the project has been conducted. This analysis reflects on the different needs, roles and access to/control over resources of women and men, and it is fully integrated into the project document. The project establishes concrete priorities to address gender inequalities in its strategy. The results framework includes outputs and activities that specifically respond to this gender analysis, with indicators that measure and monitor results contributing to gender equality. (<i>all must be true to select this option</i>) • 2: A gender analysis on the project has been conducted. This analysis reflects on the different needs, roles and access to/control over resources of women and men. Gender concerns are integrated in the development challenge and strategy sections of the project document. The results framework includes outputs and activities that specifically respond to this gender analysis, with indicators that measure and monitor results contributing to gender equality. (<i>all must be true to select this option</i>) 	3 2 1	2 Evidence Project Document Sections II, IV and VI

natural resources management, extractive industries, urbanization, citizen security, social protection, and risk management for resilience

<ul style="list-style-type: none"> • 1: The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the constraints have not been clearly identified and interventions have not been considered. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>									
<p>6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national partners, other development partners, and other actors? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project. It is clear how results achieved by relevant partners will contribute to outcome level change complementing the project's intended results. If relevant, options for south-south and triangular cooperation have been considered, as appropriate. (<i>all must be true to select this option</i>) • 2: Some analysis has been conducted on the role of other partners where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project. Options for south-south and triangular cooperation may not have not been fully developed during project design, even if relevant opportunities have been identified. • 1: No clear analysis has been conducted on the role of other partners in the area that the project intends to work, and relatively limited evidence supports the proposed engagement of UNDP and partners through the project. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	<table border="1"> <tr> <td>3</td> <td><u>2</u></td> </tr> <tr> <td colspan="2">1</td> </tr> <tr> <td colspan="2"><u>2</u></td> </tr> <tr> <td colspan="2">Evidence Project Document Sections IV and VIII</td> </tr> </table>	3	<u>2</u>	1		<u>2</u>		Evidence Project Document Sections IV and VIII	
3	<u>2</u>								
1									
<u>2</u>									
Evidence Project Document Sections IV and VIII									
SOCIAL & ENVIRONMENTAL STANDARDS									
<p>7. Does the project seek to further the realization of human rights using a human rights based approach? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: Credible evidence that the project aims to further the realization of human rights, upholding the relevant international and national laws and standards in the area of the project. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. (<i>all must be true to select this option</i>) • 2: Some evidence that the project aims to further the realization of human rights. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget. • 1: No evidence that the project aims to further the realization of human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered. <p>*Note: Management action or strong management justification must be given for a score of 1</p>	<table border="1"> <tr> <td>3</td> <td><u>2</u></td> </tr> <tr> <td colspan="2">1</td> </tr> <tr> <td colspan="2"><u>2</u></td> </tr> <tr> <td colspan="2">Evidence Project Document Annex F (SESP)</td> </tr> </table>	3	<u>2</u>	1		<u>2</u>		Evidence Project Document Annex F (SESP)	
3	<u>2</u>								
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Evidence Project Document Annex F (SESP)									
<p>8. Did the project consider potential environmental opportunities and adverse impacts, applying a precautionary approach? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: Credible evidence that opportunities to enhance environmental sustainability and integrate poverty-environment linkages were fully considered as relevant, and integrated in project strategy and design. Credible evidence that potential adverse environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. (<i>all must be true to select this option</i>). • 2: No evidence that opportunities to strengthen environmental sustainability and poverty-environment linkages were considered. Credible evidence that potential adverse environmental impacts have been identified and assessed, if relevant, and appropriate management and mitigation measures incorporated into project design and budget. • 1: No evidence that opportunities to strengthen environmental sustainability and poverty-environment linkages were considered. Limited or no evidence that potential adverse environmental impacts were adequately considered. <p>*Note: Management action or strong management justification must be given for a score of 1</p>	<table border="1"> <tr> <td><u>3</u></td> <td>2</td> </tr> <tr> <td colspan="2">1</td> </tr> <tr> <td colspan="2"><u>3</u></td> </tr> <tr> <td colspan="2">Evidence Project Document Section III and Annex F (SESP)</td> </tr> </table>	<u>3</u>	2	1		<u>3</u>		Evidence Project Document Section III and Annex F (SESP)	
<u>3</u>	2								
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Evidence Project Document Section III and Annex F (SESP)									
	<table border="1"> <tr> <td>Yes</td> <td>No</td> </tr> </table>	Yes	No						
Yes	No								

<p>9. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks? The SESP is not required for projects in which UNDP is Administrative Agent only and/or projects comprised solely of reports, coordination of events, trainings, workshops, meetings, conferences and/or communication materials and information dissemination. [if yes, upload the completed checklist. If SESP is not required, provide the reason for the exemption in the evidence section.]</p>	SESP Not Required	
MANAGEMENT & MONITORING		
<p>10. Does the project have a strong results framework? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The project’s selection of outputs and activities are at an appropriate level and relate in a clear way to the project’s theory of change. Outputs are accompanied by SMART, results-oriented indicators that measure all of the key expected changes identified in the theory of change, each with credible data sources, and populated baselines and targets, including gender sensitive, sex-disaggregated indicators where appropriate. <i>(all must be true to select this option)</i> • 2: The project’s selection of outputs and activities are at an appropriate level, but may not cover all aspects of the project’s theory of change. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of gender sensitive, sex-disaggregated indicators, as appropriate. <i>(all must be true to select this option)</i> • 1: The results framework does not meet all of the conditions specified in selection “2” above. This includes: the project’s selection of outputs and activities are not at an appropriate level and do not relate in a clear way to the project’s theory of change; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change, and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	3	<u>2</u>
	1	
	<u>2</u> Evidence Project Document Section VI	
<p>11. Is there a comprehensive and costed M&E plan in place with specified data collection sources and methods to support evidence-based management, monitoring and evaluation of the project?</p>	<u>Yes</u> (3)	No (1)
<p>12. Is the project’s governance mechanism clearly defined in the project document, including planned composition of the project board? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The project’s governance mechanism is fully defined in the project composition. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. <i>(all must be true to select this option)</i>. • 2: The project’s governance mechanism is defined in the project document; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The prodoc lists the most important responsibilities of the project board, project director/manager and quality assurance roles. <i>(all must be true to select this option)</i> • 1: The project’s governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	3	<u>2</u>
	1	
	<u>2</u> Evidence Project Document Section VIII	
<p>13. Have the project risks been identified with clear plans stated to manage and mitigate each risks? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: Project risks related to the achievement of results are fully described in the project risk log, based on comprehensive analysis drawing on the theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis. Clear and complete plan in place to manage and mitigate each risk. <i>(both must be true to select this option)</i> • 2: Project risks related to the achievement of results identified in the initial project risk log with mitigation measures identified for each risk. 	<u>3</u>	2
	1	
	<u>3</u> Evidence Project Document Section V	

<ul style="list-style-type: none"> • 1: Some risks may be identified in the initial project risk log, but no evidence of analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified and no initial risk log is included with the project document. <p>*Note: Management Action must be taken for a score of 1</p>		
EFFICIENT		
<p>14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design? This can include: i) using the theory of change analysis to explore different options of achieving the maximum results with the resources available; ii) using a portfolio management approach to improve cost effectiveness through synergies with other interventions; iii) through joint operations (e.g., monitoring or procurement) with other partners.</p>	Yes (3)	No (1)
<p>15. Are explicit plans in place to ensure the project links up with other relevant on-going projects and initiatives, whether led by UNDP, national or other partners, to achieve more efficient results (including, for example, through sharing resources or coordinating delivery?)</p>	Yes (3)	No (1)
<p>16. Is the budget justified and supported with valid estimates?</p> <ul style="list-style-type: none"> • 3: The project’s budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget. • 2: The project’s budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget. Costs are supported with valid estimates based on prevailing rates. • 1: The project’s budget is not specified at the activity level, and/or may not be captured in a multi-year budget. 	3	2 1 2 Evidence Project Document Sections IX and X
<p>17. Is the Country Office fully recovering the costs involved with project implementation?</p> <ul style="list-style-type: none"> • 3: The budget fully covers all project costs that are attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration, issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL.) • 2: The budget covers significant project costs that are attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant. • 1: The budget does not adequately cover project costs that are attributable to the project, and UNDP is cross-subsidizing the project. <p>*Note: Management Action must be given for a score of 1. The budget must be revised to fully reflect the costs of implementation before the project commences.</p>	3	2 1 3 Evidence Project Document Section VIII
EFFECTIVE		
<p>18. Is the chosen implementation modality most appropriate? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The required implementing partner assessments (capacity assessment, HACT micro assessment) have been conducted, and there is evidence that options for implementation modalities have been thoroughly considered. There is a strong justification for choosing the selected modality, based on the development context. <i>(both must be true to select this option)</i> • 2: The required implementing partner assessments (capacity assessment, HACT micro assessment) have been conducted and the implementation modality chosen is consistent with the results of the assessments. 	3	2 1 3 Evidence Project Document

<ul style="list-style-type: none"> • 1: The required assessments have not been conducted, but there may be evidence that options for implementation modalities have been considered. <p>*Note: Management Action or strong management justification must be given for a score of 1</p>	Annex J (Capacity & HACT Assessment MIEM)	
<p>19. Have targeted groups, prioritizing marginalized and excluded populations that will be affected by the project, been engaged in the design of the project in a way that addresses any underlying causes of exclusion and discrimination?</p> <ul style="list-style-type: none"> • 3: Credible evidence that all targeted groups, prioritising marginalized and excluded populations that will be involved in or affected by the project, have been actively engaged in the design of the project. Their views, rights and any constraints have been analysed and incorporated into the root cause analysis of the theory of change which seeks to address any underlying causes of exclusion and discrimination and the selection of project interventions. • 2: Some evidence that key targeted groups, prioritising marginalized and excluded populations that will be involved in the project, have been engaged in the design of the project. Some evidence that their views, rights and any constraints have been analysed and incorporated into the root cause analysis of the theory of change and the selection of project interventions. • 1: No evidence of engagement with marginalized and excluded populations that will be involved in the project during project design. No evidence that the views, rights and constraints of populations have been incorporated into the project. 	3 2	1
<p>20. Does the project conduct regular monitoring activities, have explicit plans for evaluation, and include other lesson learning (e.g. through After Action Reviews or Lessons Learned Workshops), timed to inform course corrections if needed during project implementation?</p>	Yes (3)	No (1)
<p>21. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.</p> <p>*Note: Management Action or strong management justification must be given for a score of “no”</p>	Yes (3)	No (1)
<p>22. Is there a realistic multi-year work plan and budget to ensure outputs are delivered on time and within allotted resources? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The project has a realistic work plan & budget covering the duration of the project <i>at the activity</i> level to ensure outputs are delivered on time and within the allotted resources. • 2: The project has a work plan & budget covering the duration of the project at the output level. • 1: The project does not yet have a work plan & budget covering the duration of the project. 	3 2	1
		<p>2</p> <p>Evidence Project Document Section X</p>
SUSTAINABILITY & NATIONAL OWNERSHIP		
<p>23. Have national partners led, or proactively engaged in, the design of the project? (select from options 1-3 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: National partners have full ownership of the project and led the process of the development of the project jointly with UNDP. • 2: The project has been developed by UNDP in close consultation with national partners. • 1: The project has been developed by UNDP with limited or no engagement with national partners. 	3 2	1
		<p>3</p> <p>Evidence Project Document Section VIII</p>

<p>24. Are key institutions and systems identified, and is there a strategy for strengthening specific/ comprehensive capacities based on capacity assessments conducted? (select from options 0-4 that best reflects this project):</p> <ul style="list-style-type: none"> • 3: The project has a comprehensive strategy for strengthening specific capacities of national institutions based on a systematic and detailed capacity assessment that has been completed. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly. • 2.5: A capacity assessment has been completed. The project document has identified activities that will be undertaken to strengthen capacity of national institutions, but these activities are not part of a comprehensive strategy to monitor and strengthen national capacities. • 2: A capacity assessment is planned after the start of the project. There are plans to develop a strategy to strengthen specific capacities of national institutions based on the results of the capacity assessment. • 1.5: There is mention in the project document of capacities of national institutions to be strengthened through the project, but no capacity assessments or specific strategy development are planned. • 1: Capacity assessments have not been carried out and are not foreseen. There is no strategy for strengthening specific capacities of national institutions. 	3	2.5
	2	1.5
	1	
	2.5	
	Evidence Project Document Annex J (Capacity & HACT Assessment MIEM)	
<p>25. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc.,) to the extent possible?</p>	Yes (3)	No (1)
<p>26. Is there a clear transition arrangement/ phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation strategy)?</p>	Yes (3)	No (1)

ANNEX K: CAPACITY & HACT ASSESSMENT OF THE PROJECT IMPLEMENTING PARTNER (MIEM)

Attached separately

ANNEX L: ADDITIONAL AGREEMENTS

Letter of agreement between UNDP and the government of Uruguay

LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT OF URUGUAY FOR THE PROVISION OF SUPPORT SERVICES

Montevideo, May 2017.

1. Reference is made to consultations between officials of the Government of Uruguay (hereinafter referred to as “the Government”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the MIEM is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:
 - (a) Identification and/or recruitment of project and programme personnel;
 - (b) Identification and facilitation of training activities;
 - (a) Procurement of goods and services;
4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.
5. The relevant provisions of the Agreement between the Government of Uruguay and UNDP signed on December 12, 1985 and ratified by National Law No. 15.957 of June 2, 1988 (the “SBAA”), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document.
6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.
7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.
9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.
10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

Denise Cook
Resident Representative of UNDP

Carolina Cosse
Minister of the Ministry of Industry, Energy and Mining (MIEM)

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between MIEM, the institution designated by the Government of Uruguay and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project **“Towards a sustainable and efficient urban mobility system in Uruguay”** (PIMS #5802, Atlas Award ID: 00098508, Project ID: 00101784).

2. In accordance with the provisions of the letter of agreement signed on December 12, 1985 and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1. Individual consultants contracts	During project implementation	Universal Price List	Support services
2. Companies contracts	During project implementation	Universal Price List	Support services
3. Financial assistance	During project implementation	Universal Price List	Support services
4. Procurement of goods and services	During project implementation	Universal Price List	Support services
		Total: up to USD 60,000 from GEF grant	

4. Description of functions and responsibilities of the parties involved:

The project will be implemented following UNDP’s national implementation modality, according to the Basic Assistance Agreement between UNDP and the Government of Uruguay, and the Country Programme.

The project will be executed by the Ministry of Industry, Energy and Mining (MIEM), which will act as the Implementing Partner. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.

The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. The Project Board will be integrated by MIEM, MVOTMA, UNDP Country Office, AUCI and IM.

The Director of Energy of MIEM will play the role of Project Director and will preside the Project Board. The Project Director will be technically supported by the Project Manager, as well as by the Programme Officer of the Environmental Area of UNDP Uruguay.

The Project Manager (PM) will be selected through an open competitive process. The PM, who will be responsible for the project coordination and supervision, will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager function will end when the final project terminal evaluation report and corresponding management response, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project). The PM will be supported by a full-time deputy, with experience in the technical, environmental and social dimensions of urban transport, and by one full-time person providing administrative and managerial support.

ANNEX M: GENDER ANALYSIS & GENDER ACTION PLAN

1. Gender Analysis

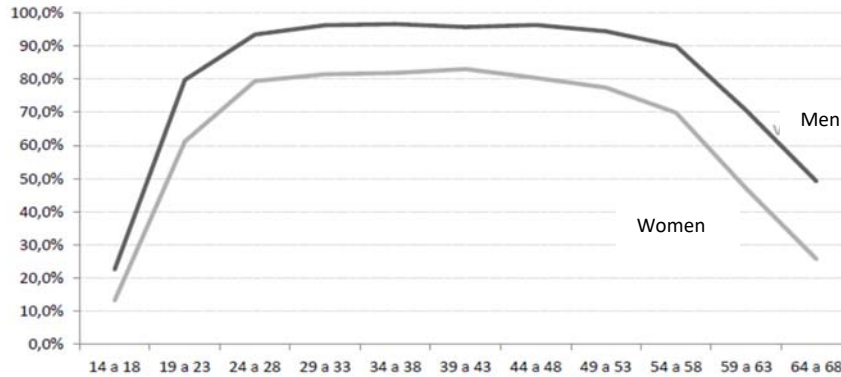
1. Context of the legal status of women in Uruguay	National policies (about identification cards, voter registration, inheritance, employment, legal representation), plans and commitments on gender equality and women's empowerment.		
	Year	N° Law	Name and link
	1913	3.245/4.802	Divorce by the will of the woman
	1932	8.927	Women - Right to vote
	1946	10.783	Law of the civil capacity of the woman
	1981	15.164	Ratification of the Convention on the Elimination of All Forms of Discrimination against Women CEDAW
	1989	16.045	Law equality of treatment and opportunities for both sex in labor
	1996	16.735	Approval of international agreement of Belem – Human Rights
	2002	17.514	Law of domestic violence eradication
	2003	17.707	Law of creation of specialized courts in domestic violence
	2004	17.815	Law of commercial or non-commercial sexual violence against children, adolescents, or disabilities
	2006	17.386 18.065	Law on support to women at childbirth Regulation of Domestic Work
	2007	18.104	Law of equality of rights and opportunities between women and men This law creates the National Gender Council (Consejo Nacional de Género)
	2008	18.390 18.426	Creation of specialized prosecutors in organized crime Sexual and reproductive law
	2009	18.476 18.561 18.620	Equitative participation of both sex in the integration of the elective bodies and political parties Sexual harassment law Law of right to gender identity
	2011	18.850	Pension law for children of victims of domestic violence
	2012	18.987	Law of voluntary termination of pregnancy
	2013	19.161 19.075 19.167	Law of paternity and maternity subsidies Law for equal marriage Law of assisted human reproduction
	2015	19.353	Law of creation of integrated national system of care
	<p>The regulations described above show the work of Uruguay on the rights of women.</p> <p>Regarding labor laws (highlighted in green), Uruguay has addressed the issues of labor inequality, harassment and access to employment opportunities. One of the axes in which the "National Gender Council" works is the right to quality employment and the development of job and employability skills.</p> <p>There are also a number of gender clauses in collective agreements: "Gender Clauses in Collective Bargaining 2005-2008 Project: Strengthening of the National Institute of Women" and "Gender in Collective Bargaining" Gender, Equity and Diversity Secretary of PIT- CNT ". In the gender clauses were incorporated points on health,</p>		

care, equal opportunities and non-discrimination, violence (sexual and moral harassment). These clauses in 2006 were present in only 15% of the collective agreements and this increased to more than 70% in 2013.

In 2016 the government of Montevideo incorporates the Advisory Division for Gender Equality with the objective of mainstreaming gender within the municipality. In addition, the Urban Public Transport Advisory Board is created, with representation of companies and workers in the public transport sector, and with representatives of the civil society in the "Consultoría del vecino y la vecina". Gender policies at the level of access to PT services and to the labor market could be developed through this new council.

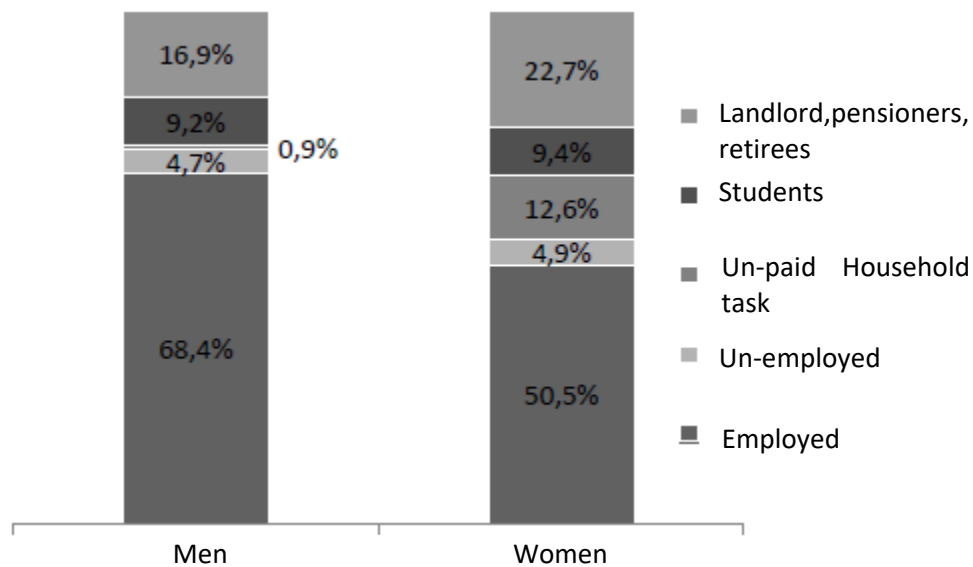
2. Division of labour

About the labor participation of men and women according to age the graph (Ministry of Social Development) shows that the participation of women in formal economy is always lower than that of men regardless of age.



Activity rate of people aged 14 and over by sex, according to age group. Total country, 2006-2015
Source: Estadísticas de género 2015

According to the 2015 household survey, the participation in formal employment of men and women over 14 years old is 68.4% and 50.5%, respectively.



Source: Estadísticas del género 2015

Even though the difference in men and women employed is not so big, the gender gap in the category of unpaid work by household tasks evidences the persistence of the traditional sexual division of labor, in which women engage in un-paid work and men to work in the formal economy.

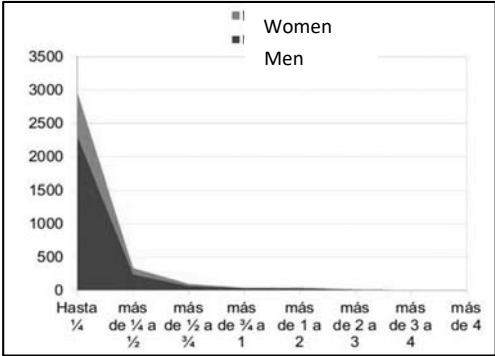
In particular, female participation in the transport sector in Uruguay is 21% (IDB, 2011-2014), which suggests the prevalence of significant gender inequality. Data obtained later with the objective of working on this specific project show that - as of December 2015 - the picture remains the same, even with a slight increase in disparity (19% of participation). In the three metropolitan departments that will be involved in the GEF Transport project (Canelones, Montevideo and San José), similar results are observed, with female participation in the transport sector in the Department of Montevideo at 20%, at 18% in San José and at a striking 7% in the Department of Canelones.

Comparative wage remuneration between women and men deepens gender gaps. In this sense, the difference between the percentage of labor and wage remuneration has a difference of 8.6% at the national level, to the detriment of women in the sector. This means that women occupy 19.2% of the transport sector but their percentage of remuneration is 10.6%. In the Montevideo the difference is 9.1%.

The project is going to work in two aspects: a) Improvement of public transport quality as a way to improve mobility conditions for women and b) Labor access: empowering women to access to the new jobs associated to the electric vehicles tested in the project.

3. Access and controls

Since public transport is a sector with high male participation and low participation in women in high-ranking positions, decision-making is mostly performed by men. This is confirmed by data on company ownership. In the case of CUTCSA, the main public transport company in Montevideo, ownership is structured in a peculiar way, with participants owning either, whole buses or parts of them (each bus can be equally split into 4 owners). Information on bus ownership shows that the participation of women remains very low, as illustrated in the figure below.



Distribution of bus ownership in CUTCSA (2015)

Source: CUTCSA

The project aims at empowering women participation using as a leverage the introduction in the various companies' fleets of the new electric vehicles to be tested during the project.

It is clear that the recruitment procedures of the project team will not present any type of disadvantage to the recruitment of women on the contrary it is expected that the multidisciplinary team that will be composed of men and women as is the case with the work teams of the Ministry.

4. Participation in decisions

In November 2016, the Ministry of Social Development carried out a study, promoted by the Interagency Gender Group of the United Nations, entitled "The place of Uruguayan women in decision-making", which included the government, and the public and private sectors. Its results are summarized in the Table below.

Government and public sector– Female representation

	2009		2014	
Women Deputies	15	15.2%	14	14.1%
Women Senators	4	12.9%	9	29.0%
Total of women in parliament	19	14.6%	23	17.7%

Source: Ministry of Social Development, 2016: [Female representation in the national parliament - Amount and percentage](#)

Comparing the two periods of government, it is clear that in 2014 the number of elected senators doubled compared to 2009, growing from 4 to 9 senators. This represents a very positive step forward as the goal of one-third of women in this chamber is almost achieved.

It should be noted that while most lists use the quota criterion restrictively, placing women in second or third place in each candidate list; It happens that as there are few lists per party to the Senate, three and more banks are eventually obtained, which contributed to the access of 9 female candidates to the upper house.

In the case of female deputies, their numbers slightly decreased, as in 2014 14 deputies were elected, compared to 15 in 2009. This indicates some setback in the participation of women in this chamber despite the quota law, partially explained by the electoral rules: 3 of the women initially elected as deputies were also elected as senators and took this position.

The current cabinet of ministers has a high presence of women: in total 5 women were appointed, representing 38.5%.

This has been the highest value since the restoration of democracy in 1985 but is still far from achieving parity.

The percentage of women in high positions in autonomous organisms, decentralized services, autonomous entities and public companies does not exceed 30%.

Private sector

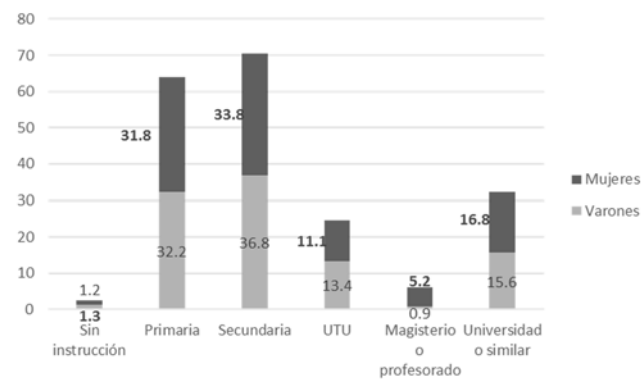
With regard to micro, small and medium enterprises, the gender gap in entrepreneurship according to branch of activity is much deeper in the Industry sector compared to the Trade and Services sector. Less than one in jobs in the industry sector are held by women. This high level of gender inequality in the Industry sector is more than double in relation to the trade sector and four times higher compared to the Services sector.

Most of the project activities are focused on the services sector, where we find the smallest gap. However, this is not the case of public transport where, as reflected previously, the participation of women in decision-making positions is very low, if not completely missing. The category of administrative positions is the only one where there are more women than men (60% to 40%). In terms of gender parity, there is the category of personnel related to sales. Following the sales category, the category of personnel with less gender inequality in hired staff is the technical / professional role with 45% female staff and 55% male staff, representing a small gender gap. Relationship that is not maintained in decision-making positions.

5. Education and knowledge

In terms of education, the levels achieved by people over 24 are very similar for men and women: About 35% has completed secondary education and 15% has completed university or similar degree.

As the project has components related to technology and mobility, strong interaction can be expected with the university, and with professionals linked to different branches of engineering. In this case the percentage of male students and graduates is above 50%, although the share of women in these areas is increasing.



Source: Ministry of Social Development, 2015: [Observatorio social](#)

In addition to the project's connection with the scientific-technological area, the incorporation of electric mobility requires that drivers and vehicle maintenance specialists acquire new knowledge. In the case of drivers, it is worth noticing that less than 5% of women in Montevideo have a professional driver's license.

The project aims at interacting with different men and women linked to the professional, technical and transport sectors with experience in managing and maintaining vehicle fleets, in order to optimize the use of new technologies and to improve the quality of the service provided.

2. Gender Action Plan

2.1 Relevant background

Current mobility trends in Montevideo show sharp gender differences: public transport is much less used by men than by women: the former account for 43% of all bus trips, and the latter for 57%; cars benefit from little restrictions and are disproportionately used by men: they make 38% of their trips by car, compared to only 25% in the case of women. Should women follow the same mobility patterns than men, it would result in an increase in the number of vehicles of 25%.

Female participation in the transport sector in Uruguay is only 21%, and even weaker in the Metropolitan Departments of Montevideo (20%), San José (18%) and Canelones (7%). The share is even lower in public transport companies: only 16% of the jobs are occupied by women in the bus company with the higher share of female employment.

Therefore, it seems adequate to talk of both, a “mobility gap” and a “job gap” concerning gender mobility challenges in Montevideo:

- The mobility gap is related to the limited attractiveness of buses and other sustainable transport modes compared to car use. There are scant restrictions to car circulation and parking, except in the small *Ciudad Vieja* district. Travel times between some specific origins and destinations (from the 2009 mobility survey) were significantly shorter for trips made by car than by public transport in 76% of the cases analyzed, and in 54% of them, travel time by bus was more than 50% longer. This gap in the quality of mobility conditions between cars and public transport is disproportionately suffered by women, as their access to cars is 13 percentage points lower than in the case of men. The gender gap in mobility conditions is likely to further increase, with many women facing increasing distances and travel times, and with growing pressure to dedicate a significant part of their income to gain access to car use. The gap is sustained by widespread acceptance of the privileges of car users, in spite of their social and environmental consequences.
- The job gap can be linked to a conservative management culture in all public transport operators (PTOs). On the one side this conservative culture has been unable to attract additional passengers, even in a context of population growth; on the other hand, the resistance to change can also explain the low share of employed women in the sector (just 16% in 2016 for the main PTO- although up from 12% in 2010).

The design and operational conditions of the public transport system are also poorly suited to cope with many women's needs. Operations have been designed historically to cope with the needs of daily home-to-work trips at peak hours. However, 29% of mobility demand in Montevideo is due to mobility related to purposes such as household tasks (shopping...), socializing children or providing support to dependent adults, and includes many multipurpose, chained trips poorly served by the existing bus system. As many as 69% of women's trips in Montevideo are related to these purposes.

2.2. Implementation Plan

Implementation of the gender action plan has been embedded within the project structure as follows:

- The alignment of the quality public transport services with women’s priorities and needs is addressed within component 1, outcome 1.2. The practice developed within the project is expected to influence future transport quality requirements of the municipality, and internal quality assurance procedures within transport companies. Although there is no evidence on the priorities identified by men and women regarding public transport quality in Montevideo, information from other countries suggests that women are more concerned about safety and personal security; furthermore, women tend to have less access to different transport options, and tend to have multiple purposes in their trips, many times during off-peak hours, to accommodate the conflicting needs of work, household and childcare. Transport quality- related topics of high relevance for women probably include off-peak service quality, convenient transfers, and good coverage of key destinations by the network beyond the traditional radial lines serving commuting trips. The project intends to explore these challenges in order to define future public transport quality priorities from a gender perspective.
- Access to jobs in the transport sector is addressed within component 2, including the whole component cycle, from the pilot design (in order to encourage the involvement of women in the operations of the electric vehicles) to the follow-up actions (within the business plans to be prepared by each participating company, so that all of them include a strategy to facilitate women’s access to jobs in the future). Current barriers to jobs in the transport sector for women have been discussed during project design, although few conclusions can be advanced at this stage: these barriers are probably associated to tradition, to conservative management and to unfriendly working environments, as in many other countries. A pro-active strategy has been agreed, so that the introduction of electric vehicles (EVs) is taken as an opportunity to foster women participation in jobs by giving priority to women for accessing the new jobs linked to EV (driving, maintenance and management) in the companies associated with the project pilots. The project should facilitate further streamlining of policies to facilitate the access of women to jobs in the transport sector based on these pilots and replication activities throughout public transport operators and freight delivery companies. Furthermore, the project will support participating transport companies in the revision of their current job descriptions and working environments, in order to facilitate the integration of women, taking into consideration international evidence and good practice. Based on the project experience, it is expected that transport companies will be able to mainstream pro-active policies and to increase the percentage of female employees, integrating these aspects within the business plans to be developed within the project and to be implemented after the project’s conclusion. The public transport sector should benefit from providing a working environment more attractive for women, as their communicative and people-oriented skills can be of great value to improve the quality of the service.
- Improved mobility conditions for women are a key feature within component 3, addressing the support to non-motorized modes (NMM) and to car-free access to jobs. Mobility data shows that women, as city residents, suffer from a transport system designed and managed with a priority to cope with the mobility needs of those using private cars and making mainly home-to-work trips. The project adopts a “reverse design approach”, giving priority in policy making to non-motorized modes and to public transport, and mainstreams consideration of users’ needs outside peak hours and beyond home-to-work radial transport flows. Furthermore, the project’s approach to public transport quality is based on a collaborative concept, so that the concerns of thus far neglected users (and particularly women of different age, residence and background) can be fully taken into consideration. The priority accorded by the project to public transport and non-motorized transport modes is expected to mainly benefit women, as they represent 57% of public transport users and 52% of pedestrians. A transport system better adapted to women’s expectations and needs should facilitate access to socio-economic opportunities and sustain women’s empowerment. The project also aims at encouraging walking and cycling, particularly for short-distance trips. Evidence shows differences among men and women in their perception of the public space, and their willingness to use NMMs. The project actions in this field will therefore adopt a wide, gender-sensitive approach in its campaigning.
- Within component 3, the implementation of corporate mobility management plans in some major working centers also offers a unique opportunity to better understand the gender gap in daily home-to-work commuting and to adopt a consistent, gender-sensitive approach well-tailored to the specificities at each site. This includes the consideration of gender-sensitive options for flexible working hours, priority setting at parking places, and bike-sharing and car-pooling programmes. These considerations can be discussed with employees and executive officers in private companies and public institutions, since the first activities at each site are undertaken.

Gender-oriented actions will be conducted by the following partners:

- The project team, particularly by the project manager with the support of the technical specialist in transport (TS#1). For both positions, previous experience in the implementation of gender action plans are considered as relevant for the selection process. The project manager will be in charge of monitoring annually this gender action plan as part of the project monitoring effort.
- UNDP country office in Uruguay. It will also be responsible for the annual revision of the project gender marking.
- *Intendencia de Montevideo* (IM), as the main institutional partner in the implementation of the project components in which gender actions have been embedded.
- MIEM, MVOTMA, UTE and other project partners implementing corporate mobility management plans.

Timelines and budgets are presented in the sections below.

2.3. Proposed activities

The following activities addressing gender issues have been included in the project:

- Project Component 1:
 - o Improvement of PT quality as a way to improve mobility conditions for women and to facilitate and increase a more convenient use of public transport by women, such as access to and interconnection between key places (e.g. schools, health centers) for a more efficient use of their time. Quality improvement is addressed by the project from a participatory perspective, focusing on the PT traits more valued by women, besides other social groups and the population at large, and is reinforced by the action under component 2 to facilitate the access of women to the new jobs generated from the deployment of electric vehicles, as it is expected that this will encourage public transport employees to make use of their communicative skills in their relationships with customers.
 - o The quality plan for PT to be produced as a project output will justify priority to women's needs where needed.
- Project component 2:
 - o Empowering women to access to the new jobs associated to the electric vehicles tested in the project (through recruitment strategy, training plans and companies' business models for future expansion). Worldwide experience shows that a better gender-balanced staff results in PT services better valued by all users, including women.
- Project component 3:
 - o Campaigns to support walking and cycling targeting women. The approach will benefit from collaborative methodologies developed in other cities around the world, and will focus on short-distance trips. Cultural change is expected to generate a more positive attitude towards non-car users (including women) on the city streets, and more careful consideration of their needs.
 - o Green corporate mobility management plans to include careful assessment of gender issues in trips to the workplace and to raise awareness among companies and their employees on gender issues on transportation.

This approach is expected to be sustained after project termination through the inclusion of the project's recommendations within the practice of the municipality (*Intendencia de Montevideo*) as public transport authority.

2.4. Indicators, targets and proposed budget

The proposed project monitoring approach includes some gender-sensitive indicators within the Project Results Framework (PRF), which will provide the necessary information for monitoring the Gender Action Plan:

- Indicator 7 will monitor the number of quality-related targets adopted by the municipality with its public transport providers, considering different categories, so that progress on those categories prioritized by women (as stated in the annual surveys conducted by the municipality) will be known in comparison with other categories.
- Indicator 10 will provide the percentage of new transport jobs linked to electro-mobility which are occupied by women (with a target of 100%).
- Indicator 12 (modal change in working centers after implementation of mobility plans) will provide guidance on the impacts of this measure on women and men.
- Indicator 13 (satisfaction with mobility conditions) will provide public transport satisfaction levels for women and for some specific social groups, based on the annual survey conducted by the municipality.

Indicators' baselines and targets are fully described in the PRF, and are summarized in the table below, which also includes the budget targeted to gender activities:

Project component 1: Policy framework for a low carbon transport system						
Outcome 1.2: Modal share of public transport increased, and quality control improved						
Gender-related activity	Indicator	Target	Baseline	Budget	Timeline	Responsibility
Improvement of PT quality as a way to improve mobility conditions for women Quality plan for PT will provide priority to women's needs	Indicator 7: Targets for PT quality identified and enforced by IM.	Minimum number of targets enforced for each category: fleet and vehicle characteristics (4), planned and actual service supply (4), information and communication with users (4), comfort levels (2) and safety (2)	Few quality targets in place; a quality plan will be developed by IM with coherent targets, in collaboration with TPOs; the plan will need to gain adequate backing by national legislation	10,000	Years 2, 3	IM, project team (through project manager and technical specialist 1)
Project component 2: Demonstration technological options in Montevideo						
Outcome: Accelerated adoption of electric vehicles in urban transport						
Gender-related activity	Indicator	Target	Baseline	Budget	Timeline	Responsibility
Empowering women to access to the new jobs associated to the electric vehicles tested in the project (through recruitment strategy, training plans and companies' business models for future expansion)	Indicator 10: Percentage of new jobs linked to e-vehicles occupied by women (measured as a percentage of the total expected new jobs)	100% (All new job positions within the project (drivers, maintenance, managers) offered in priority to women)	0%	30,000	Years 1 to 4	PNUD, project team (through project manager and technical specialist 1)
Project component 3: Cultural change, dissemination and replication						
Outcome: Innovative policy packages developed, aiming at changing mobility behavior and replicating innovative measures in other cities						
Gender-related activity	Indicator	Target	Baseline	Budget	Timeline	Responsibility
Green corporate mobility management plans to include careful assessment of gender issues	Indicator 12: Number of persons changing transport mode following company mobility plans	270 (of which the % of women should be at least equal to % of female employees)	0	2,000	Year 2	Project team, MIEM, MVOTMA, UTE
Campaigns to support walking and cycling targeting women	Indicator 13: Percentage of vulnerable users (women, elderly) satisfied by mobility conditions	A raise of 5 percentage points (+5%) in the satisfaction level expressed by women in the annual survey made by IM.	(*) 2017 Baseline data to be supplied by IM.	10,000	Year 3	IM, project team (mainly through its
Total budget allocation					USD 52,000	