



# GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: MEDIUM-SIZED PROJECT

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title:	Low-carbon transport systems in the City of La Havana		
Country:	Cuba	GEF Project ID:	9706
GEF Agency:	UNDP	GEF Agency Project ID:	5653
Other Executing Partner:	The General Division of Transport for La Habana (DGTPH), acting as the leader partner, in collaboration with Ministry of Transport (MITRANS) and the Urban Directorate for La Havana Landscape Planning (DPPF).	Submission Date:	3 March 2017
		Re-submission date:	11 April 2017
GEF Focal Area:	Climate Change	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		Corporate Program: SGP <input type="checkbox"/>
Name of parent program:		Agency Fee (\$)	186,118

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

Objectives/Programs	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
CCM-2 Program 3 <sup>1</sup>	GEFTF	1,959,132	15,400,000
<b>Total Project Cost</b>		<b>1,959,132</b>	<b>15,400,000</b>

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To promote the implementation of a low-carbon urban transport system in the City of La Havana						
Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
<b>1. Increasing national capacities on low-carbon urban transport system</b>	TA	1.1 An updated regulatory and operational framework for sustainable public transport, fostering sustainable mobility and greater resilient urban environment.	<p>1.1.1 An integrated and coherent “Urban Transport Development Program for the City of La Havana” with “the Land Use and Urban Master Plan” by:</p> <ul style="list-style-type: none"> <li>strengthening institutional coordination between national government policymakers and city authorities,</li> <li>building capacity for public officers on climate change mitigation in low-carbon urban transport, and</li> <li>increasing a gender equality and age population approach associated to urban transport policies.</li> </ul>	GEFTF	365,000	600,000

<sup>1</sup> CCM-2, Demonstrate systemic impacts of mitigation options; Program 3, Promote integrated low-emission urban systems

			<p>1.1.2 Regulatory framework for the low-carbon, urban transport plan revised, updated, and validated with key stakeholders.</p> <p>1.1.3 An integrated scheme with technical specifications, standards and alternative public procurement guidelines, associated with the integral planning of the Bus Rapid Transit (BRT) Network and a Public Bicycle System (PBS) related to end-users (cyclists), road infrastructure (cycle lanes, signage, right of way), and servicing; developed and validated with key stakeholders, incorporating gender and aging population challenges.</p> <p>1.1.4 A Monitoring, Reporting and Verification (MRV) system for urban transport methodologies is incorporated into the City of La Havana urban planning and design, including ICTs (geospatial data), sustainability indicators for quality control of public transport services, and GHG environmental impact measures.</p>			
<p><b>2. Enabling an integrated urban transport system for the City of La Havana</b></p>	TA	<p>2.1 Enhanced public transport system through Public Bicycle System (PBS), and Transport Oriented Development (TOD).</p>	<p>2.1.1 TOD measures integrated into the design of the BRT Network, including:</p> <p>Traffic management projects (design urban facilities at local connecting points, traffic light systems, improved feeder routes, pedestrian and bicycle-friendly pathways),</p> <p>Traffic management measures (parking charges and restrictions, one-way streets, reversible lanes, traffic signs, exclusive bus lanes).</p> <p>2.1.2 PBS City network system designed, including:</p> <p>the design of infrastructural works,</p> <p>improving public safety in accessing the new system,</p> <p>the design of a signal system for bikers and right of way for pedestrians and motorized drivers, and</p> <p>creating management conditions for operations and servicing (rentals, maintenance, repairs and spare parts supply).</p> <p>2.1.3 A public awareness and communication strategy for low-carbon public transportation systems (e.g. best practices for bus drivers, changing mobility behaviour of passengers) is designed and implemented.</p>	GEFTF	1,146,029	4,600,000

	INV	2.2 Innovative pilot interventions on low-carbon investments in urban transport validated.	<p>2.2.1 Three TOD pilot measures in selected public switching-bus stations implemented and lessons learned documented. These will consider traffic management measures, traffic management projects, strengthening of small-scale traffic infrastructure and public transport systems, strengthening of gender equality, aging population, and community safety improvement.</p> <p>2.2.2 A PBS pilot project implemented and lessons learned documented. Their location will be determined in three corridors proposed with high visibility for the urban passengers and will include the construction of bicycle paths and pedestrian crossings with a signal code system in place, including the strengthening of gender equality policies.</p>	GEFTF	220,000	8,400,000	
<b>3. Monitoring and Evaluation</b>	TA	3.1 Programmatic monitoring of project indicators together with a review of on-going activities to ensure successful project implementation.	<p>3.1.1 At least one meeting of the Project Steering Committee held every six months.</p> <p>3.1.2 Annual progress reports in accordance with the established monitoring plan agreed in the ProDoc.</p> <p>3.1.3 Mid-term review performed, if needed, and terminal project evaluation conducted.</p>	GEFTF	50,000	100,000	
Subtotal						1,781,029	13,700,000
Project Management Cost (PMC)					GEFTF	178,103	1,700,000
<b>Total Project Cost</b>						<b>1,959,132</b>	<b>15,400,000</b>

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	General Division of Transport for La Habana (DGTH)	In-kind	60,000
Recipient Government	General Division of Transport for La Habana (DGTH)	Cash	15,250,000
Recipient Government	CUBAENERGIA	In-kind	20,000
Recipient Government	CIMAB	In-kind	20,000
GEF Agency	UNDP	In-kind	50,000
<b>Total Co-financing</b>			<b>15,400,000</b>

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED**

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) <sup>b</sup>	Total (c)=a+b
UNDP	GEFTF	Cuba	Climate Change		1,959,132	186,118	2,145,250
<b>Total GEF Resources</b>					<b>1,959,132</b>	<b>186,118</b>	<b>2,145,250</b>

## E. PROJECT PREPARATION GRANT (PPG)

Is Project Preparation Grant requested? Yes  No

### PPG AMOUNT REQUESTED

Project Preparation Grant amount requested: \$50,000					PPG Agency Fee: \$4,750		
GEF Agency	Trust Fund	Country	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee (b)	Total c = a + b
UNDP	GEFTF	Cuba	Climate Change		50,000	4,750	54,750
<b>Total PPG Amount</b>					<b>50,000</b>	<b>4,500</b>	<b>54,750</b>

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

Corporate Results	Replenishment Targets	Project Targets
4. Support to transformational shifts towards a low-emission, resilient development path	750 million metric tons of CO <sub>2e</sub> mitigated (including both direct and indirect)	218,598 tons of CO <sub>2</sub>

## PART II: PROJECT JUSTIFICATION

**Project Description** 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area<sup>2</sup> strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

### 1.1 Global Environmental Problems, Root Causes and Barriers that Need to be Addressed

1. This project proposal aims to provide significant knowledge resources and technical assistance in order to enhance sustainable mobility and an integrated approach for reducing GHG emissions from urban transport in the City of La Havana. For a tropical Caribbean City that has lagged in large cash flows for financing infrastructure for multi-modal transportation in the conventional way, this project will bring about opportunities for greater efficiency, integrated planning, and increasingly equitable socioeconomic returns on low-emission public investments in a very innovative way, in order to steer a strategic and up-to-date transition towards low-carbon mobility for urban passengers.
2. The La Havana metropolitan region, where the capital city of Cuba is located in the northern part of the country, is politically structured as a province. As the main political decision-making centre, it is made up of 15 municipalities. Of the 11.4 million people that live in Cuba, the La Havana Bay Area has a population of 2.12 million inhabitants in only 3% of the national territory (728.26 km<sup>2</sup>), with a negative population growth of -0.3% but with a growing concentration of international tourists during most of the year, estimated on the order of 1.6 million visitors in 2015, expected to increase at least 10% annually in the next 5 years. Historically, the urban arrangement of the city has been unstructured rather than planned, in a disarticulated manner where the socioeconomic setting takes place around the harbour area in an urban periphery of about 40 km<sup>2</sup>, named Central Habana, which concentrates a high density of the population (2,913 inhabitants/km<sup>2</sup>) in a mono-concentric urban shape.
3. The City is the main source of employment but relies on a very inefficient and outmoded public transport system, critical aspects that have severely affected the mobility of the population between Central Havana and the surrounding boroughs for decades. The city has a very low level of motorized vehicles, 37 per 1,000 individuals, while similar urban centres in the Caribbean report densities of 96. Instead, local residents largely depend on very diverse, old-

<sup>2</sup> For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

fashioned means of public transport. On the other hand, this is recognized as a strength in terms of La Havana's relatively lower levels of congestion, pollution, road safety, and the public use of urban space<sup>3</sup>.

4. From a transport standpoint, the public transport arrangement in Cuba is a service carried out in the interest of the citizens, however, this has subsisted under a stressful context since the Socialist Revolution in 1959 and it has undergone several attempts to cope with this perennial challenge. At the beginning of the revolutionary process, the public transport network was made up of parallel, winding and overlapping routes, inherited from the main operators before 1959. During the early years of the Revolution, public transport in the City was given special attention, so that at the beginning of the 80s, the Urban Omnibus Company of Havana had 20 terminals and a fleet of 1,835 units, although this operation was unable to meet the demand of mobilizing 4.3 million passengers per day (30,000 trips), mainly due to the poor design of the network. In 1983, a new program emerged, i.e.: the "Integral Development Scheme of Urban Transport of Havana", hoping to boost a major construction for highways throughout the metropolitan region, but as a result of the economic crisis of the early 90s, all development programs were delayed. To show the complexity and severity of the problem nowadays, the system serves daily 1.15 million passengers (7,000 trips) through a public bus service network arranged along 17 main corridors, connecting Central Havana with the peripheral hubs in the surrounding boroughs.
5. In the policy field, the top-down approach in Cuba is concentrated in the Council of Ministers, which issues national policies. In the transport sector, the Ministry of Transport (MITRANS) leads the policy agenda and oversees national urban transport plans in accordance with the "*National Policy for Public Passengers Transportation*", enacted in 2011 and validated in 2016, where most of the policy decision-making weight is concentrated in the national capital. During the "Special Period" (1990-present), this Ministry has been responsible for the planning, design, financing, operation, and maintenance of public transportation services and it had also been responsible for compliance with national regulations at the city level, such as the management of downtown local traffic and the provision of public transport.
6. It was not until very recently (2013) that the Council of Ministers approved, at the provincial level, the establishment of a new agency to take the lead on the city's public transport system, i.e.: the General Division of Transport for La Habana (DGTPH). It acts under the political guidance of the La Havana Provincial Council (CAP) according to three main policies, i.e.: i. an adequate regulatory framework (technical standards and urban mobility), ii. public transport investments (urban infrastructure such as roads and switching stations), and iii. operational services for the general public, students, state workers, and tourists (a state-owned fleet made up of buses and mini-buses), in alignment with newly-endorsed climate change national policies. These city-level policies are embraced in the "*Urban Transport Development Program for La Havana*", officially approved in 2013 by MITRANS.
7. In terms of urban transport, the DGTPH is the main entity responsible for the overall management and operation of the system, following technical specifications and standards enacted by MITRANS and the National Office of Norms, respectively. As the main authority of public transport for the City, its function is to integrate the decision making process affecting a wide diversity of stakeholders, i.e.: large state-owned companies, large public cooperatives, and small private entrepreneurs. The DGTPH is the only entity responsible for the regulation, licensing, administrative operation, and management of the entire road infrastructure for the City of La Havana. The historical duplication of functions between management bodies that existed was eliminated separating state functions from daily operations incorporating the role of multiple operators which now includes state enterprises, cooperatives and private operators under the newly introduced economic reforms to promote small scale, self-owned private enterprises ("*empresas cuenta propistas*").
8. On the financial front, data availability is very poor. There are no official data available for the current operational cost structure; it is estimated that about 70% of the current fare is subsidized, but this is a complex issue since the economy in Cuba has two different currencies and conversion rates vary in accordance with the end-user (local or tourist) and target sector (state-owned companies or tourism). Financially, the situation for supporting different urban transport solutions in Cuba has always been stressful. In this regard, provincial budget investments are covered by the allocation

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<sup>3</sup> Reference: "Developing an equitable and sustainable mobility strategy for Havana", in:  
<http://www.sciencedirect.com/science/article/pii/S0264275115000220>

of direct transfers from the national budget approved by the Ministry of Economy and Planning through the DGTPH; in 2015 alone, this allocation was on the order of USD57 million for the 15 metropolitan municipalities.

9. The bus and mini-bus public transportation system in the city consists of a very diverse fleet of 650 units operating with minimum regulation, extended periods of servicing, and poor mechanical maintenance characterized by very excessive gas emissions (with an average lifespan of 7 years<sup>4</sup>). The state-owned fleet is managed and operated by three different groups of bus operators, i.e.: i. the recent large public company providing urban service to metropolitan passengers and two companies that supply transportation to public employees and students, ii. three state-owned transport cooperatives where the units and permits are leased by the State, and iii. a large group of privately-licensed individual operators; however, these operate in a disorganized manner where frequency and interchange of routes is highly variable and in general they do not comply with official regulations (technical specifications and standards).
10. This context shows how the public transport system in the city has been characterized for decades by instability, unreliability, and very poor quality, leading to a vicious circle in which many urban citizens commonly use other means of collective transportation such as the unsafe and also crowded modified old trucks, the old pre-American 1959 state-owned collective taxis (called *almendron* –due to its shape similar to a large almond-), small boats for crossing the bay, and non-motorized means such as *bici-taxis* (rickshaws), horse-drawn carriages, hitchhiking, and walking to reach their destinations. This produces even more disorganized traffic mobility, increased travel times, and a very undesirable situation for women, seniors and children; hence, a decent urban transport system along an improved corridor network and its feeder routes together with TOD projects and measures is essential.
11. The above situation has also contributed to global warming. Data analysis from the 2013 baseline shows that an old and crowded public fleet of slow-moving/low energy efficiency buses contributes to the emission of about 120,000 tons of CO<sub>2</sub> annually. This situation also adds to the high concentration of air pollution for metropolitan residents (51% of the PM10 emissions are due to public transport, even though the percentage of buses in La Havana represent only 4% of the entire national fleet). The Second National Communication (2016) indicates that Cuba's GHG emissions were 47.797 million tCO<sub>2</sub> in 2012. Total energy consumption was responsible for 36.086 million tCO<sub>2</sub>eq, of which only 1.569 million tCO<sub>2</sub> were from the transport sector. It is important to bear in mind that total GHG emissions in 2012 were reduced with respect to the annual baseline (1990). This is a direct consequence of the acute crisis derived from the loss of economic ties with former Soviet Union and the stress of the US embargo afterwards. The GHG inventory also shows that the transport sector does not represent a significant sector driving CO<sub>2</sub> emissions growth in the current Cuban context, however, a slow economic recovery in recent years is bringing about a reverse trend, especially for hydrocarbon consumption due to an increase in thermal power generation and a slow modernization of the motorized fleet, a key challenge for the country's climate change mitigation policy.
12. Along this path, this project proposal will strengthen and facilitate current efforts in Cuba to curb the growth of CO<sub>2</sub> emissions. In fact, Cuba has already made significant decisions in recent years to mitigate climate change and the UNDP has been supporting this process. The National Climate Change Plan -approved by the Council of Ministers in 2007 and recently resubmitted with an updated version (2016) - includes the development of specific policies for different sectors on climate change mitigation, of which the deployment and commercialization of innovative low-carbon actions to increase sustainable transport and improve mobility for the nation's Capital has been incorporated as a national priority.
13. The island of Cuba is vulnerable to extreme events due to its location on the path of Caribbean hurricanes and tropical depressions, which poses additional challenges for maintaining its vulnerable urban infrastructure fully operational; during the 2001-2016 period alone, nine major hurricanes have affected Cuba, an unprecedented record in recent times. Habana City has also been harshly affected by these natural events, as in the case of the road system and public transportation service which are frequently exposed to heavy rains and sea floods especially in low-lying neighbourhoods, a context which poses additional challenges to sustainable transport, urban mobility, and connectivity.

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<sup>4</sup> However, units undergo a major overhaul every 7 years on average, not a full replacement; with the aim to extend their useful life for at least three more years.

14. In the prevalent institutional context of the Republic of Cuba, this project will make a significant change in the existing public transport mode and launch a reform process to enhance the wellbeing of its urban citizens. During the PIF preparation stage, UNDP used a participatory approach with central government policymakers and provincial stakeholders to identify those structural barriers that limit the potential of the City of Havana to establish an innovation-friendly, climate-resilient development path for transport policy design and implementation. The comprehensive analysis of these barriers, confirming their extent, root causes and interrelationships, will be included in the Project Document at the CEO endorsement stage.

Barrier Type	Barrier Descriptions
<p style="text-align: center;">Institutional</p> <p><i>Lack of an integrated and updated framework to implement more climate-resilient public policies on urban transportation.</i></p>	<ul style="list-style-type: none"> <li>• Lack of policy coherence. Cuba has introduced in very recent years a shift in the institutional setting to improve urban transport of the large metropolitan region. However, there is a need to advance a better synergy between policymakers and the newly-created independent public transport operators.</li> <li>• Obsolete regulatory framework for public transport that would not help create a long-term market-based shift in current operation at the city level, precluding the application of updated technical specifications and standards for planning and implementation of low-carbon urban transport and more resilient infrastructure for the urban passenger.</li> <li>• Lack of institutional capacity at both national and city levels to mainstream more modern low-carbon transport measures and investments into urban development, for instance, measures related to traffic management, last-mile practices and an on-line information and communication system.</li> <li>• Absence of appropriate and timely information is currently a given fact for the mobility of the metropolitan citizens, which is lagging behind in fundamental aspects of urban transport management such as the non-existence of official itineraries, a very low number of operating units, variable frequency, lack of warning for changes in routes, inadequate access and bus-stop facilities, lack of a minimum signal system, and rejection of the bicycle as an alternative means of non-motorized transport.</li> </ul>
<p style="text-align: center;">Technical</p> <p><i>Lack of institutional and human capacities to develop low-emission investments in the urban transport sector.</i></p>	<ul style="list-style-type: none"> <li>• Lack of technical analysis to support the decision-making approach at the highest political level (MITRANS and CAP) and to facilitate the development of a low-carbon investment portfolio at the city level and increase fuel efficiency (DGTPH).</li> <li>• Alternative cleaner transport technologies to the current diesel-powered technology used for decades, such as massive transit systems or non-conventional fueled units and TOD measures to improve competitiveness and reduce vulnerability, are significantly higher and hard to implement due to the market complexities faced by the country.</li> <li>• Very unsatisfactory management by public transport operators due to a variety of structural issues, including a highly subsidized operation, and more critical, the mismanagement of warehouse inventories for the maintenance and operation of the public bus system.</li> <li>• Insufficient emphasis has been placed on the means by which Bus Rapid Transit (BRT) options can be integrated into urban planning and a more resilient city, whether by foot (walkways), bicycles (paths), or public transport feeder routes.</li> </ul>
<p style="text-align: center;">Economic/Financial</p> <p><i>Constrained access to market-oriented mechanisms to finance large and low-carbon investments.</i></p>	<ul style="list-style-type: none"> <li>• Historically, public investments in key infrastructure and services at the provincial level, such as innovative and sustainable passenger transport, have lagged due to the US sanctions that prevent the Republic of Cuba from accessing international credit markets for public financing and central government budget allocations that do not always arrive on time or in amounts sufficient to cover 100% of the growing needs.</li> <li>• National policies and public programs related to urban transport are not sufficiently integrated with results-based management, resulting in major inefficiencies in decision-making and overlap in the allocation of scarce public budgets. For instance, the allocation of government subsidies is not linked to any sort of accountability related to the overall management of the public service such as compliance of schedules, fuel consumption, etc., of the state-owned-cooperatives.</li> <li>• The prevailing context for urban mobility over decades in which the old, crowded, steamy, and poorly maintained state-owned fleet of diesel-powered buses has been unable to meet demand due to national budget constraints for public transport and the lack of pricing mechanisms (fares) on the one hand, and a theft culture of the cash collection by bus drivers and other workers on the other.</li> </ul>

15. The Council of Ministers is aware of the need to reverse the historical public transport context on the island in a sustainable manner and has recognized the need for a more harmonized urban path where significant actions on low-carbon, transport-oriented development can contribute to improved resilience, mobility, and a better urban environment for metropolitan citizens and the growing tourism industry. On the other hand, the local authorities of the City of La Havana have also recognized the need to become more proactive along this path, so any means to contribute to solving the structural problems that affect the quality of life of their constituencies is welcome. Considering the weight of the

City of La Havana within the country's CO<sub>2</sub> emissions growth in the short term due to the economic recovery, targeting low-carbon measures seems to be a cost-effective approach for achieving significant mitigation results. In this context, the main issues the GEF project will address are twofold: one is the need to maximize synergies for planning and implementation between national and city decision makers to mainstream an alternative low-carbon paradigm into their current, long-term urban investment plans to achieve global environmental benefits; and the other is to cope with a critical element in the Cuban context: the reduced allocations of public budgets and improved capital access to engage in developing low-carbon, long-term investments in the public transport system.

## **1.2 Baseline scenario and associated baseline projects/activities**

16. This MSP will build upon ongoing efforts of the Government of Cuba to implement its National Plan for Climate Change which aims at reducing GHG emissions to contribute to the voluntary mitigation of climate change, as well as strengthening collateral socioeconomic and environmental sustainability reforms at the national level, through engagement with key ministries and other public stakeholders. This project will also build on important baseline national policies and recent changes as well as on enacted programs that are in the planning stage for implementation in the coming years to address the existing, historical, main urban transport problems with a long-term strategic vision. However, these baseline actions have significant limitations, one of these is the need to ensure the maximum delivery of global environmental benefits and boost climate change resilience.
17. To ease the chaotic situation with urban transport, the Central Government has passed several regulations associated with the implementation of traffic management policies and environmental guidelines to reduce air pollution, mostly after 2010, in response to its commitment to the international conventions the country has endorsed. In 2011, the Sixth Congress of the Communist Party of Cuba, which is the maximum political authority, approved 11 principles to improve and guide the efficiency of national public passenger service, which was later ratified in 2016 through two main policies, i.e.: the *“National Policy for Public Passengers Transportation”* and the *“Integrated Policy for the Reorganization for Public Passengers of the City of La Havana”*. The latter sets up the main policy with a long-term vision (2030) through the *“Urban Transport Development Program for La Havana”* mentioned above, based on annual work plans and budget allocations from the central government.
18. Under the leadership of DGTPH, the implementation of the latest Program has as one of its pillars the *“Land Use Plan and Urban Master Plan”*, describing the elements that contribute to the sustainable development of the city effective since 2012 when it was approved by the Council of Ministers and is currently under implementation by the Urban Directorate for Havana Landscape Planning (DPPF). The following principles guide the implementation of the Urban Transport Program: i. ensure public service access for all citizens, ii. integrate the participation of the different means of transportation, i.e.: road, railway, and marine (local ferries and boats), iii. propose alternative forms of public and non-public management of these public services, and iv. forecast and analyse the main urban mobility indexes and set milestones for the City of La Havana with other similar cities of the first order in Latin America. Along with these principles, this program for La Havana is made up of 14 substantive sub-programs, which are summarized along the following areas:
  - Improve and update the existing regulatory framework.
  - Modernize the different motorized means of land transportation operating in the city, including the proposed design of a BRT system, including the assessment for the use of alternative fuels.
  - Increase mobility by considering the design and development of a non-motorized system, given priority to a public bicycle system and pathways with a total length of 100 kilometres.
  - Integrate road, railway, and marine forms of transport servicing the Central Havana area.
  - Develop actions to improve public infrastructure for integrated and sustainable public transport, i.e.: highways, sea ports, bus terminals.
  - Integrate Information and Communication Technologies (ICTs) into overall system operation.
  - Improve technical capacity in personnel at all levels (management, operations and logistics).
  - Develop a crime prevention system in the urban transport sector.
19. The DGTPH is enhancing a coordinated institutional action path for the implementation of this Urban Transport Program. To fulfil its mandate, it incorporates other key public institutions in the overall planning of the city, such as

the General Division of Landscape Planning, state-owned landscape design companies, the Research Centre and Environmental Management for Transport (CIMAB), and the Polytechnic Institute of Education (IPSJAE University). The official total budget allocated for the planning period 2014-2030 is USD 1.887 billion, divided as follows: 2014-2016 (USD 235M), 2017-2020 (USD 594M), 2021-2030 (USD 1.058B).

20. In 2014, the newly-established entity, the DGTPH, commissioned an urban mobility study for transport in the City of La Havana which was carried out in 2015. Key findings of this study show that for 4.6 million trips per day, the road modal split information is 57% by foot -with an average distance of 6.2 kilometres per trip between home and workplace- 16% by a motorized, public diesel-powered bus system, 11% by private car, 9% by taxi and other means, and only 2% by bicycle. One of the main outcomes of this study was to carry out the overall reorganization of the public transport system by regrouping three large operators into one single company, “the Urban Transport Company of La Havana”, which is now servicing the whole metropolitan area.
21. To change the current context, the urban mobility study also included a thorough analysis of a BRT system that has been conceptualized as an alternative for reorganizing the different means of motorized services, main terminals and bus stops, incorporating key aspects such as itineraries, routes, and pricing mechanisms (fares), with the aim to provide a long-term solution to the low quality of public transport. This conclusion is based on an assessment of demand associated with the three main corridors showing an average of 4,000 passengers in each way during peak hours. This system, which is at the conceptual stage, it is expected to be fully operational by 2030, will run along three main corridors with 240 articulated hybrid (diesel-electric) fuel buses with higher power efficiency standards and lower emissions, and 104 kilometres of BRT lines, interconnecting the Havana Centre with the peripheral boroughs. The first section (2017-2020), is the Red Line that would link *Santiago de Las Vegas* with *Alamar* boroughs along 30 kilometres with 50 stops<sup>5</sup>. The second section, the Blue Line, would connect the *Reparto Electrico* with the *Novia del Mediodía* boroughs along 37 kilometres with 64 stops; and the third section, the Green Line, linking *Alberro* with *Novia del Mediodía* with 36 kilometres and 72 stops. It has been proposed that this BRT network would also be complemented by feeder routes running with 930 articulated buses and 2,420 conventional units thru 24 switching stations. Once it is fully operational, this plan has an estimated global impact in terms of CO<sub>2</sub> reductions of about 11,000 tons eq. per year over the current public transportation system; and it will improve air quality in the AMSS by reducing current concentrations of CO and NO<sub>x</sub> by 84%, using the year 2017 as a baseline.
22. However, the proposal for the validated BRT alternative has exposed several issues: one is the lack of planning considerations for streets adjacent to the main lines of the proposed BRT system regarding the means by which metropolitan citizens will access the BRT, whether on foot, bicycle, or public transport feeder routes; another is how to achieve climate change global benefits and determination of how this large investment will be fully financed. The DGTPH has recognized the need to advance this proposal into an integrated design incorporating feeder routes, TOD measures, urban planning, and its connection with other means of transportation such as the railway system and marine-harbour terminals, at this stage. Likewise, an alternative system for promoting the public use of bicycles by new generations has been proposed<sup>6</sup>, including the allocation of 100 public hubs for bicycles distributed throughout the city; however, the interconnection of this alternative with the proposed BRT system is still pending without the design of a bicycle path and signal systems to regulate, manage, and operate it as a key element of an integrated and coherent scheme for urban transport.
23. The baseline situation summarized in the table below shows that an integrated approach to planning and creating synergies between national and provincial levels is needed to enhance multiple benefits, both locally and globally.

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<sup>5</sup> Please note that the Red Line expects to start operating with a pilot section in 2017.

<sup>6</sup> Back in the 1990s, a public bike initiative was promoted with the introduction of 1 million bicycles in the city, the construction of bicycle paths, and public servicing, however, due to weaker central government support at that time, it was considered more as a toy than a form of urban transportation and its impact disappeared over time.

<b>Component</b>	<b>Business-As-Usual / Baseline Scenario</b>
<p><i>1. Increasing national capacities on low-carbon urban transport</i></p>	<p>The City of La Havana is undertaking important baseline programs to address significant structural problems in the urban transport sector, including climate change mitigation, like the regrouping of the metropolitan public bus service into one single large operator. However, plans and public investments to be implemented in accordance with national development policies for sustainable transport are lagging behind the integration and coherence of low-carbon measures, greater achievement of energy savings, and improved governance. In addition, city transport authorities need to carry out those investments under very limited technical capacities, poor regulation and large budget constraints.</p> <p>The recently created General Division of Transport for La Habana (DGTPH) is leading an effort to integrate territorial development planning with the “<i>Urban Transport Development Program</i>” to enforce coordination between the national and provincial levels and carry out important baseline actions to address the perennial problems of urban transport infrastructure and budget deficits. However, ample opportunities still exist to align this national policy with cost-effective actions for climate change mitigation, increase urban resilience, and improve quality of life of the metropolitan citizens, in particular with the “<i>Land Use and Urban Master Plan</i>” for the City.</p>
	<p><i>SUBTOTAL Component 1 =USD600,000</i></p>
<p><i>2. Enabling an integrated urban transport system for the City of La Havana</i></p>	<p>To ease the current urban transport context, the Council of Ministers has approved a public budget allocation for the design of a BRT system with three separate lines and an improved transport feeder route system, as well as an innovative feed-in system supported by a bicycle path network; however, insufficient emphasis has been placed on transport network integration with land use management plans, TOD opportunities and last-mile practices, for instance, on how passengers will access the BRT Corridor system, whether on foot, bicycle, or boat.</p> <p>The DGTPH is adopting a more proactive role in the overall integration of a more resilient, low-carbon transport system in terms of creating the new conditions based on modern operation of major urban transport systems, including up-to-date regulations, TOD, walk and bike ways, replacement of the old units, and an improved management of the whole operation and maintenance of the urban transport system. The first phase of the design stage is planned to be implemented in 2017-2020.</p>
	<p><i>SUBTOTAL Component 2 =USD13,000,000</i></p>
<p><i>TOTAL = USD13,600,000</i></p>	

24. The baseline assessment shows that there is an ongoing effort from policymakers, the Council of Ministers and at the provincial stage to address major development challenges that have historically characterized the public transport sector in the City of La Havana. It is expected that the aggregation of these initiatives endorsed politically at the highest level will result in a set of actions that are likely to create positive local impacts over the long run, nonetheless, the principles that guide the implementation of a new management system seek sector-based solutions. As a result these initiatives are unlikely to have a full transformative impact on the transport system and urban setting of the city but they lead into this GEF project strategy. The project will furnish significant opportunities for integrating climate change mitigation into this new course of action, mainly to enable the conditions for an integrated low-carbon urban transport network around the newly-created management operation of the public bus fleet and the on-going conceptualization of a BRT system.

### 1.3 The proposed alternative scenario; GEF focal area strategy, with a brief description of expected outcomes and components of the Project

25. Cuba, and its capital city in particular, offer great prospects for successfully demonstrating how a large metropolitan region in Latin America could become less private car-dependent with the implementation of an alternative path based on more sustainable means of urban transport. The baseline initiatives can lead to a full transformative impact on the current urban transport setting of the City of La Havana, however, without the GEF-funded/UNDP-supported intervention, the technological transition to low-carbon mobility will probably progress at a much slower rate and significant global environmental benefits will be hard to achieve. The contributions expected from the project should facilitate the implementation of the “*Urban Transport Development Program for La Havana*” taking action in two stages.
26. The first one will focus on fostering a more resilient city by adopting an integrated approach and coherent urban transport plan for the city with the existing “*Land Use and Urban Master Plan*”, improving institutional capabilities, empowering stakeholders, updating the current system of regulations regarding low-carbon transport, and in particular, incorporating appropriate technical and operational guidelines to the proposals for the BRT and PBS systems. The second stage is to enable an integrated public transport system to increase urban mobility based on the ongoing conceptualization of a BRT system that would enhance global environmental benefits and the city’s empowerment over time, complemented with the execution of six innovative pilot interventions to demonstrate progress for a change in the business-as-usual paradigm, for policymakers (national and provincial) and urban passengers (metropolitan citizens and tourists) alike.
27. The project's strategy is based on three principles: (i) an integrated approach, creating synergies among the otherwise poorly coordinated actions and decisions of policy-makers (national and provincial) at the operational level (the variety of public transport providers) and for the urban user level (a long-lasting chronic reality for the city’s public transport); (ii) encouragement of reliable innovation implementation, accompanying decision makers in fostering the necessary structural changes in public administration, and among key stakeholders and practitioners involved in the adoption of low-carbon transport systems and best practices (for instance, increase the institutional capacity of the newly-created DGTPH); and (iii) the implementation of pilots as an effective way to remove barriers, to learn from experience, and to change a historical paradigm in the metropolitan urban setting, to accelerate the adoption of innovative, low-carbon mobility solutions at all levels, from regulators to operators to urban passengers.
28. The project has two substantive components aligned with three main outcomes, embracing the institutional, regulatory, technological, and replication dimensions needed to reach the proposed structural change with regard to low-carbon urban transport in the City of La Havana. The detailed description of activities, their scope, and budget, will be developed in the PPG stage.
29. **Component 1: Increasing National Capacities for a Low-carbon Urban Transport System.** The heart of this component is to review, update, and make changes to the urban project investments already foreseen in the “*Urban Transport Development Program for La Havana*”, in order to develop and make the transition to a more coherent and integrated low-emission urban transport path for the city and land use, and a mass transit network for efficiency and accessibility in which socially-equitable goals govern policy, planning, and investment decisions for both the short and long term.
30. This component will build upon some actions already underway or planned to mobilize broader, better integrated efforts with the planned BRT system that need to be adapted to more resilient transport development, adjusting different forms of mobility in line with the existing urban settlements around the Historical Centre borough, peri-urban zones, labour centres, and social and recreational landmarks. This component will provide comprehensive advice on the issues of new public policies focusing on Transport Oriented Development (TOD), gender equality and woman empowerment, and active participation in the GEF-supported Global Platform for Sustainable Cities- Integrated Approach Program Initiative (GP-SCI) recently launched by the GEF<sup>7</sup>.

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<sup>7</sup> It is expected that this project will also establish the conditions to make it compatible with this Platform.

31. Under the leadership of the General Division of Transport for La Habana (DGTPH) (coordination for implementation at the city level), the National Department of Mitigation (CUBAENERGIA) (climate change policies and centralization of decision-making at the national level), and the Urban Directorate for La Havana Landscape Planning (city planning), Outcome 1.1 of Component 1 (an updated regulatory and operational framework) is expected to be achieved through four outputs:

- i. in order to convey an alternative framework for sustainable public transport that fosters mobility and a more resilient urban environment, the “*Urban Transport Development Program for the City of La Havana*” will be integrated with the “*Land Use and Urban Master Plan*” by strengthening institutional coordination between national government policymakers and city authorities, for public officers on climate change mitigation on low-carbon urban transport and, increasing gender equality and age population approach associated with urban transport policies (Output 1.1.1);
- ii. the existing regulatory framework for the low-carbon, urban transport plan revised, updated, and validated with key stakeholders (Output 1.1.2);
- iii. an integrated scheme with technical specifications, standards, and alternative public procurement guidelines associated with the integral planning of the Bus Rapid Transit (BRT) Network and a Public Bicycle System (PBS) related to end-users (cyclists), road infrastructure (cycle lanes, signage, right of way), and servicing; developed and validated with key stakeholders, incorporating gender and aging population challenges (Output 1.1.3), and
- iv. a Monitoring, Reporting, and Verification (MRV) system for urban transport methodologies through the use of ICTs (geospatial data), sustainability indicators for quality control of public transport services, and global environmental impacts (GHG) will be compatible with the GEF GP-SCI (Output 1.1.4).

32. Through Component 1, this project will be also linked with the GEF GP-SCI. Although the project is not a child project of this Program, it will commit project funding to engage in the Global Platform’s policy dialogues and benefit from the Program’s technical assistance and learning from other cities on integrated solutions regarding urban transport, energy efficiency, vulnerability, and other issues of relevance to the global environment. For instance, the issue of potential risks associated with forthcoming growth in levels of car ownership can be learned from other cities. The specific services to be requested will be defined during the PPG phase. However, a key set of innovative tools and common metrics -key indicators for ensuring global environmental benefits delivery- for the MRV of the sustainability of the proposed and implemented measures will need to be developed, incorporated, and tracked, including but not limited to energy consumption, urban resilience, and greenhouse gas emission reductions.

33. **Component 2: Enabling an integrated urban transport system for the City of La Havana.** The core of this component is the direct and indirect reduction of GHG emissions from public transport resulting from the implementation of low-carbon, cost-effective measures over the long term. Under the leadership of DGTH and CUBAENERGIA, Outcome 2.1 regards the enhancement of a public transport system through the planned BRT lines and bus stops as well as a Transit Oriented Development (TOD) approach through three outputs. It consists of an assessment of issues, options and resource needs in the greater metropolitan area, which will be carried out with an emphasis on public transport in district linkages with main roads and the ongoing design of the BRT System.

- i. The first Output (Output 2.1.1), as a sub-element of the integrated planning strategy prepared in Output 1.1.1, will lead to the development of an integrated and resilient transport plan based on TOD measures compatible with the GEF GP-SCI and integrated into the design of the BRT System, including traffic management projects (design urban facilities at local connecting points, traffic light systems, improved feeder routes, pedestrian and bicycle-friendly pathways), and traffic management measures (parking charges and restrictions, one-way streets, reversible lanes, traffic signs, exclusive bus lanes), including safety measures for the elderly, women, and children.
- ii. As an incremental output to improve a more resilient urban transport system, the quality of access routes to the proposed BRT System can be enhanced with walkways and bicycle path options feeding into the BRT Network,

to be implemented under Output (2.1.2); with an extension of 100 kilometres, of which the overall design will be supported with GEF funding. This considers the design, construction, and management of a Public Bicycle System (PBS) including the precise definition and design of infrastructural works for improving public safety in accessing the new system, the design of a signal system for bikers and right of way for pedestrians and motorized drivers, and creating innovative management conditions for operations and servicing (rentals, maintenance, repairs and spare parts supply) through self-managed enterprises.

iii. The third Output (2.1.3) involves the design and implementation of a strategy to increase public awareness and communication for low-carbon public transportation systems (e.g. best practices for bus drivers, changing mobility behaviour of passengers). Based on geospatial data gathering and analysis, the DGTH will validate the implementation of the new measures and investment plans with urban citizens. Of greater relevance, this campaign will use the gender approach focusing on particularly vulnerable social groups in addressing gender barriers to walking and cycling, for children, teenagers, seniors and women as they are particularly vulnerable when accessing and using public transport.

34. The second Outcome (2.2), through two outputs, will gear to the implementation of pilot interventions during project execution, climate-resilient investments to increase mobility along one of the lines of the proposed BRT corridor, with TOD pilot measures in selected public switching-bus stations implemented and lessons learned documented. These pilot interventions in selected public switching-bus stations (Outcome 2.2.1) will be executed according to the integrated and resilient transport plan developed in Outcome 2.1.1.

i. These will consider traffic management projects, traffic management measures, strengthening of small-scale traffic infrastructure and public transport systems, strengthening of gender equality, aging population, and community safety improvement. The proposed sites for the three TOD pilots will be located in neighbourhoods that are highly visible to local residents and visitors, such as the borough where the Historical Centre is located (Output 2.2.1).

ii. Likewise, a pilot project for PBS demonstration will be implemented (design of the network to feed-in the proposed main BRT switching stations, construction of the bicycle paths, and a signal code in place), and lessons learned documented. Their location will be determined in three sites proposed with high visibility for the urban passengers and will include the construction of bicycle paths and pedestrian crossings with a signal code system in place (for instance, in the stations of *Muelle de Luz*, *Plaza de Cuatro Caminos*, and *Parque El Curita*), including also the strengthening of gender equality policies (Output 2.2.2). To elaborate lessons out this specific pilot, for instance, will be critical for the entire design of the PBS City network system.

35. Detailed description of the demonstration sites and definition of the size of the pilot investments will be indicated at the PPG stage, however, it is expected that direct allocations from government co-investors will vary between USD500K and USD1 million, depending on the specific pilot to be executed. Lessons learned, including gender equality and woman empowerment from these six pilot actions will furnish the final design and the feasibility of the BRT Network at a larger scale, therefore contributing to the transformational change of La Havana's urban transport. Pilot actions are expected to be replicated in the second largest urban centre of the country, the City of Santiago de Cuba (Pop. 510.000).

36. **Component 3:** This component has been established for project monitoring and evaluation. It includes a programmatic monitoring of project indicators together with a review of on-going activities to ensure successful project implementation.

#### **1.4 Incremental cost reasoning and expected contributions from the baseline and co-financing**

37. This medium-sized project will allow Cuba to fully integrate global environmental issues into its urban transport planning efforts and thus contribute to reducing global greenhouse gas emissions. Consequently, greater use of sustainable modes of public transport in the City of La Havana is expected to be encouraged in line with the use of hybrid buses (diesel-electricity) and to promote the foreseen use of non-motorized modes (PBS). An integrated

planning system approach consists of the identification of the working niches of the long-term planning policy stated in the existing “*Land Use and Urban Master Plan*” and the recently approved “*Urban Transport Development Program*”; enhancing opportunities for complementarity, creating synergies and avoiding duplication of leadership in the incremental activities to be implemented by this MSP.

38. Component 1 will provide the political, planning, regulatory, and capacity building context to structure top-down decisions, in order to harmonize the city’s ability to integrate investments in low-emission initiatives with land use planning, and measure progress against a common baseline with geospatial data, environmental indicators for quality control of public transport services, and innovative practice tools. This project has been considered as a set of tasks aligned with the design for the implementation of a BRT system and its feeder lines integrated into the city’s public transport system, so that it is perfectly in line with the already adopted government policies to change, re-engineer, improve the quality of public transportation service, and to keep the City of La Havana free of traffic congestion, the most typical issue in large urban metropolitan centres of LAC.
39. Even though this project is not a child project of the GEF GP-SCI, it will incorporate elements of this initiative and actively participate in it with knowledge exchange. This approach also provides the means to create the conditions and mobilize self-managed enterprises participation in the urban transport business, provide ongoing communication with urban citizens and visitors, and promote information sharing with other metropolitan regions in the Caribbean and Latin American region. In this regard, this project will enable the conditions, once it is under implementation, to create synergies with other similar UNDP/GEF LAC projects that will be executed in Paraguay, San Salvador, Uruguay, and Ecuador.
40. Component 2 takes on-the-ground action to address the critical issues historically affecting the transport sector in the main urban region of the country, optimizing key baseline programs and delivering solutions to global environment challenges in a cost-effective way. This includes improving the current Urban Transport Program for the City of La Havana and better governance of this province through the provision of much better public service that in turn will contribute to GHG reduction and more competitiveness. The design stage of the BRT system at this moment includes the completion of the urban mobility study for the City of La Havana (2014), the substitution of the first batch of old-steamly buses (2015) and an assessment of demand associated with the three main corridors showing an average of 4,000 passengers in each direction during peak hours (2016). The positive results of the pilots would serve to adapt current regulation for both urban transport and urban landscape planning. In the long term, the project is providing inputs and guidance to the integrated system approach for sustainable mobility, improved connectivity, and a more resilient metropolitan region.
41. FSP activities are expected to result in the following incremental outcomes with GEF grant support to the baseline:

Component	GEF-supported alternative
<p><i>1. Increasing national capacities for low-carbon urban transport</i></p>	<p>The GEF-supported intervention will develop an “Integrated Institutional Framework” for coherent low-carbon urban development in the City of La Havana aligned with national priorities and compatible with the GEF GP-SCI, by updating the current regulatory framework, strengthening the capacities of policymakers and technical staff, improving the design of the BRT and PBS systems with low-carbon, climate resilience policies, under the technical guidance of DGTPH and the Urban Directorate for La Havana Landscape Planning (DPPF). The regulatory framework will improve the current system by complementing the ongoing design of a BRT system with modern and up-to-date urban transport TOD measures, technical specifications, enforced standards and alternative public procurement guidelines for a PBS City network system, and a MRV system using modern techniques, such as ICTs.</p> <p>To support this action over the long-run, a public budget allocation has been approved by the Council of Ministers that will be engaged during the execution of the 4-year MSP, supported by the structure of an investment portfolio for low-emission transport investments, aligned with the existing “<i>Land Use and Urban Master Plan</i>”.</p>
<p><i>USD965,000</i></p>	<p><i>SUBTOTAL Component 1 = Cofinancing (UD600,000) + GEF (USD365,000)</i></p>
<p><i>2. Enabling an integrated urban transport system for the City of La Havana</i></p>	<p>The proposed BRT system, now in the design stage, will be enhanced with key elements of the integrated planning strategy in conjunction with pilot interventions that will help demonstrate the technical, environmental, and economic viability and cost-effectiveness of small-scale, low-carbon</p>

	<p>investments for different types of interventions in at least six pilot sites in order to reduce transport mobility time and increase better, safe public service, mainly in the Central Havana, considering innovative measures such as TOD, last-mile connections, PBS network, and enhanced walkways.</p> <p>The successful implementation of the large investments and change in the current paradigm will translate into a better metropolitan public transport service in terms of: (a) increased fuel bill savings; (b) reduced GHG emissions; (c) improved overall quality of life for local residents and visitors; and (d) improved public safety, especially for women, seniors, and children.</p>
USD14,959,132	<i>SUBTOTAL Component 2 = Cofinancing (USD13,000,000) + GEF (USD1,959,132)</i>

### 1.5 Global Environment Benefits

42. The project's expected impacts are well aligned with the global environmental benefits identified for the CCM focal area (CCM-2/Program 3), mainly mitigated GHG emissions, decreased use of fossil energy resources, improved energy efficiency and enhanced non-motorized transport.
43. The replacement of the out-of-date, diesel-powered bus fleet with a BRT system in accordance with the GEF TEEMP model (Short Cut BRT Method) is expected to yield a potential reduction of 90,583 tCO<sub>2</sub> over a 4-year period (of initiatives directly supported during MSP execution). Further, the project will result in indirect emissions reductions from strengthened national policies, an institutional framework supporting efficient transport, capacity building, and operation of a hybrid BRT system, which will lead to indirect emissions reductions of about 97,415 tCO<sub>2</sub> over a 20-year period. Additionally, there is 30,600 tCO<sub>2</sub> potential emission reduction due to operation of a PBS with a projected length of 100 kilometres, over a 20-year period.
44. As a result, total accumulative CO<sub>2</sub> emission savings would account for 218,598 tCO<sub>2</sub> in 20 years. A full estimation of direct and indirect emission reduction benefits will be confirmed during the PPG stage of this proposal. In addition, this project will produce significant local co-benefits in the areas of public health, travel time, gender equality, and economic growth.

### 1.6 Innovation, sustainability and potential for scaling up

45. As mentioned in several analyses, the particular political, economic and social conditions of Cuba have created unique possibilities for the development of a sustainable transport system in the City of La Havana<sup>8</sup>. The two substantive components of this project are quite innovative and they promote project sustainability since they are focused on the medium and long term. The project aims to introduce state-of-the-art national policy planning by improving the urban transport regulatory framework and implementing actions to ensure alignment with an integrated development approach for the city. While Component 1 will ensure that the benefits derived from integrated planning are mainstreamed into the city's decision making process, Component 2 will deliver direct benefits during the MSP lifetime.
46. Specifically, the innovative technological approach of this particular MSP is related to the fact that this will be the first project in Cuba that aims to implement an environmental transport system integrating several municipalities of the provincial capital. Furthermore, the project will promote the fast adoption of an alternative hybrid means of transport while reinforcing the standardization of a number of new regulations for urban transport and the advance of an integrated plan for low-emission, sustainable urban development. From a political stand-point, innovation embraces a multilevel governance approach to tackle the urban mobility challenge of this city, integrating national policies on urban planning with low-emission carbon in the transport sector as well as considering innovative ways to enhance local economic development, such as the incorporation of self-managed enterprises into non-motorized modes of public transport.
47. In terms of sustainability and in the particular context of the island, the main challenge resides in the fact that the economy is undergoing a soft transformation. Once the project's results start emerging and barriers are removed, a

<sup>8</sup> For instance, please refer to the study: "Developing an equitable and sustainable mobility strategy for Havana", in: <http://www.sciencedirect.com/science/article/pii/S0264275115000220>

major challenge is to become more market-based, for example, structuring an appropriate pricing mechanism for public transport services to leverage cost-efficient investments and increase financial flows to reduce the ongoing dependence on national budget allocations. This, complemented with an educational campaign over time, may convince the metropolitan citizen that partially covering the cost of an improved, clean, and sustainable urban transport public service can provide a more decent standard of living (mobility, employment, and income) in ways that are more efficient, climate-friendly, and socially equitable. Such a strategy would not only establish a clearer link between more efficient resource consumption and social development, it would also prove to be politically attractive and a more business-like urban setting for the growing tourism industry.

48. The potential for scaling-up is primarily linked to local benefits (for instance, job creation) with significant climate change mitigation potential (energy savings) and it will also provide lessons and a plan for the second largest urban centre, the City of Santiago de Cuba in the eastern portion of the island, which displays similar vulnerabilities. If managed well, this project could become a driver of sustainable development while addressing low-emission development needs in the other densest urban centres of the Caribbean region. This is also the case for pilot improvements in the quality of service, which could be scaled-up, if successful, in the context of the new urban mobility plan. The project will be also linked to the GEF-supported Global Platform for Sustainable Cities Integrated Approach Program that will further strengthen the project’s replication potential.

**2. STAKEHOLDERS: WILL PROJECT DESIGN INCLUDE THE PARTICIPATION OF RELEVANT STAKEHOLDERS FROM CIVIL SOCIETY ORGANIZATIONS (YES  /NO ) AND INDIGENOUS PEOPLES (YES  /NO )? IF YES, IDENTIFY KEY STAKEHOLDERS AND BRIEFLY DESCRIBE HOW THEY WILL BE ENGAGED IN PROJECT PREPARATION.**

49. The MSP design will be guided by national and provincial institutions responsible for implementation. This group of stakeholders, which are listed below, will define the scope of the proposed outcomes and outputs, and their related activities to guide the overall MSP design at the PPG stage.

50. The project will be executed by DGTPH in close collaboration with the Urban Directorate for La Havana Landscape Planning. DGTPH is the main responsible implementing party, acting under the political guidance of MITRANS and CAP. Each agency’s role will be established during PPG formulation so as to ensure adequate coordination of the proposed activities and timely decision-making at the highest political and institutional levels per each party’s specific expertise, area of work, and co-finance.

Stakeholders	Expected Roles
The Ministry of Transport (MITRANS)	MITRANS is in charge of policies, regulations and technical specifications for transport in the country; it represents, on behalf of the Council of Ministers, the highest public administrative authority in public transport. During the implementation of the project it will be in charge of approving urban transport regulations.
The Provincial Council (CAP)	CAP is the highest management entity for the province of La Havana, which approves annual work plans and the associated public budget. Its main role is the allocation of the project’s main cofinancing.
The General Transportation Management Division for La Havana (DGTPH)	DGTPH is the lead partner responsible for development and detailed design of the project. It is also responsible for liaison work with the other government agencies and during implementation, for its overall management, under the leadership of a national project coordinator; the Project Management Unit (PMU) will be located in their premises. During the PPG stage it will ensure that FSP documentation responds to national goals.
The Urban Directorate for La Havana Landscape Planning (DPPF)	DPPF is another technical entity under the jurisdiction of the Provincial Council which is in charge of land management and planning for the City of La Havana that at the national level reports to the Institute of Physical Planning. DPPF will provide technical assistance and overall logistical support for the PMU.
CUBAENERGIA	CUBAENERGIA, as part of the Department of Mitigation Technology for Climate Change, associated with the Ministry of Science, Technology, and Environment, will provide guidance to align the proposed project with the context of national policies and climate change mitigation goals. For the purpose of this project, CUBAENERGIA plays the role of a CSO, but always responding on behalf of the public interest guided by State-driven policies.
The Research Centre for Transport (CIMAB)	CIMAB, attached to MITRANS, has the institutional capacity to gather information, analyse data, and provide technical support for the overall design and implementation of the project. For the purpose of

	this project, CIMAB plays the role of a CSO in the Cuban, but always responding on behalf of the public interest guided by State-driven policies.
The Polytechnic Institute of Education (IPSJAE)	IPSJAE, which is attached to the Technical University of La Havana, reports to the Ministry of Education. It provides technical knowledge and academic support to the DGTPH on topics related to urban transport and it will also provide technical assistance and support for the PMU on capacity building, knowledge learning and information dissemination.
City Transport Operators	This is a group made up of state-owned companies servicing the entire city, large government enterprises, and the educational sector. Recently (2015), a new cooperative emerged, the "Urban Transport Company of La Havana", as the main operator for public transportation (urban passengers), which has taken a proactive role during the preparation of this PIF as a unique opportunity to address the variety of historical barriers faced by this sector.
Self-managed enterprises ( <i>Cuenta-propistas</i> )	Micro and small enterprises may evolve over time into a broader sector, government regulated, but oriented by market-driven activities. This emerging sector in the Cuban economy, which is subject to a specific tax regimen, may also play a key role servicing specific tasks, such as bike rentals, maintenance, repairs and supply of spare parts.
UNDP	The GEF implementing agency will provide oversight, project assurance and technical support, in addition to co-financing. It will ensure MSP due diligence is completed on schedule.

**3. GENDER EQUALITY AND WOMEN'S EMPOWERMENT: ARE ISSUES ON [GENDER EQUALITY](#) AND WOMEN'S EMPOWERMENT TAKEN INTO ACCOUNT? (YES  /NO ). IF YES, BRIEFLY DESCRIBE HOW IT WILL BE MAINSTREAMED INTO PROJECT PREPARATION (E.G. GENDER ANALYSIS), TAKING INTO ACCOUNT THE DIFFERENCES, NEEDS, ROLES AND PRIORITIES OF WOMEN AND MEN.**

51. Under its two main components, and considering that there have been profound changes on the subject of women in Cuba, in accordance with the main drivers stated in the "National Action Plan" -to implement the principles of the IVth World Conference on Women (Beijing 1995)- according to the official agreement of the State Council, Cuba has undertaken concrete actions for their compliance. This MSP will do its utmost to ensure gender equality and women's empowerment for the overall planning and execution of the activities that encompass awareness-raising, capacity-building and training on two levels: better transport jobs for women and gender aware-raising issues amongst urban transport users.

52. Cuba has undertaken a systemic approach throughout all sectors to empower women and promote gender equality. As a result, women today represent 37% of the country's economically-active population and 56% of trained professionals. Another contribution of the project is to carry out, under Output 1.1.1, a thorough analysis to identify current practices and develop active plans to materialize equal access to employment in the transport sector and this project will build upon those findings.

53. The urban mobility study for transport in the City of La Havana found that 52% of passenger demand is female transport. In this regard, increased mobility and accessibility to decent means of transportation also have very positive impacts on women, seniors and children because of increased safety and comfort over the current bus system (unreliable, crowded and steamy). The study under Output 1.1.1 will also analyse in depth the characterization of gender equality and urban mobility; major action will be undertaken if needed.

**4. RISKS INDICATE RISKS, INCLUDING CLIMATE CHANGE, POTENTIAL SOCIAL AND ENVIRONMENTAL RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND, IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN (TABLE FORMAT ACCEPTABLE).**

54. The approach set forth for this MSP faces several inherent risks. Particular attention will be paid to at least the following risks during its preparation:

Risk	Rating	Mitigation Measures
<i>Political</i> Changes in public sector decision makers (at technical	Probability: Medium	This MSP is responding to a highly-political decision from the Council of Ministers to address a severe structural challenge that has been affecting most Cuban metropolitan citizens for decades, under the leadership of MITRANS,

<b>Risk</b>	<b>Rating</b>	<b>Mitigation Measures</b>
and political levels) affect project design, implementation, and the adoption of the proposed integrated approach.	Impact: High	which is delegating coordinated planning and budgeting; at present all relevant political stakeholders are fully engaged. This is expected to withstand changes in individuals, as well as political shifts.  Furthermore, a strong MSP Management Unit will be put in place to ensure adequate coordination among all policymakers, institutions and stakeholders, with clearly defined roles and responsibilities and decision-making channels.
<i>Financial</i> Low levels of motivation from provincial policymakers to implement further low-carbon investments after the project is completed.	Probability: Low Impact: High	During the PPG design stage, it shall be ensured that the currently approved national budget of at least USD15.4 million (2017-2020 period) for financing low-carbon urban investments for transport clearly adapts to the project's outputs. Of greater significance, in the current context of the city's urban transport sector, is the execution of 6 pilot projects under Outcome 2.2.
<i>Social</i> Lack of acceptance of change in the current situation.	Probability: Low Impact: High	In the current context, 57% of the mobility of La Havana Metropolitan region is by foot; an improved urban transport system has historically been a major desire for local passengers. The measures proposed in the PIF will bring about an urgent solution for the national interest and will enable the conditions to maintain sustainable growth in urban transport based on an innovated low-carbon approach.
<i>Operational</i> Construction of the first line of the BRT is delayed and poor integration with the feeder routes reduces MSP impacts.	Probability: Medium Impact: Medium	Several government policy-makers have expressed strong interest in learning more about how to improve mobility and accessibility, measures to increase resilience, and they are open to putting in place modern techniques for urban transport, such as the introduction of TOD principles and the last-mile concept, as a common practice.  In the worst case that the construction of the BRT is delayed, in the project design there are other GEF-funded incremental activities that would also bring GHG global benefits, such as the design and construction of a large PBS, the implementation of TOD measures, and increased institutional capacity for updated urban traffic regulation.

## 5. COORDINATION OUTLINE THE COORDINATION WITH OTHER RELEVANT GEF-FINANCED AND OTHER INITIATIVES.

55. Through the General Transportation Management Division for La Havana (DGTPH), the project, consistent with the National Plan for Climate Change, will create the needed institutional synergy between the national policymaking level and the actions carried out by the provincial authorities to enhance conditions for a more resilient region and ensure a low-carbon path for urban transport in the city.
56. During its execution, the MSP Management Unit will include a technical team consisting of representatives of DGTPH, DPPF, CUBAENERGIA, CIMAB and city transport operators. This national team has capacities for implementing and supervising the proposed activities, determining how to fit them into an integrated decision-making framework. During the PPG stage, terms of reference for specific tasks and up-to-date knowledge transfer will be prepared in order to retain international experts, for instance, the design of innovative policies so that low-carbon investments are implemented and also strengthen the metropolitan economy.
57. In addition, there are several UNDP/GEF-financed projects in Latin America currently under the approval process, which could offer some synergistic opportunities with this proposal:
- UNDP/GEF FSP #6946: Asuncion Green City of the Americas – Pathways to Sustainability. This FSP that is part of the GEF's Sustainable Cities Integrated Approach Pilot (IAP) program. It seeks to demonstrate innovative models of sustainable urban management through integrated urban policy and strategy support and piloting of high impact options, and to foster the replication of sustainable urban management models, where the urban transport sector in the capital city of Paraguay is one of the key components.
  - UNDP/GEF FSP #9038. San Salvador Low-emission Urban Development Path. This project will bring about opportunities for greater efficiency, integrated planning, and increasing returns on low emission public

investments, specifically in Transport Oriented Development (TOD), in the Greater Metropolitan Area of San Salvador, the capital city of El Salvador.

- UNDP/GEF MSP #5802. Towards a sustainable and efficient urban mobility system in Uruguay. The project aims to empower stakeholder capacities, prove the effectiveness of innovative policies and measures, and launch a reform process to establish an innovative-friendly environment for transport policy design and implementation in Montevideo, the capital city of Uruguay.
- UNDP/GEF MSP #5546. Ecuador. Promote the timely development, demonstration, and financing of low carbon technologies and mitigation options. This project aims to reduce the Carbon Footprint of the Road Transport Value Chain in Ecuador.

**6. CONSISTENCY WITH NATIONAL PRIORITIES IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSEMENTS UNDER RELEVANT CONVENTIONS? (YES  /NO  ). IF YES, WHICH ONES AND HOW: NAPAS, NAPS, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURS, INDCs, ETC.**

58. The Cuban archipelago is very vulnerable to global climate change, given its position as a small island state located in the tropical region of the planet. Unless proper actions are enforced on all fronts, climate change will continue aggravating the nation's accumulated environmental problems, gradually becoming a determining factor for sustainable development. As was pointed out in Section A, the Second National Communication (2016) indicates that of a total Energy consumption of 36.086 million tCO<sub>2</sub>eq, only 1.569 million tCO<sub>2</sub> were from the transport sector. However, a recent slow modernization of the gasoline and diesel oil-powered urban fleet could be a significant challenge for the country's climate change mitigation policy under a business-as-usual scenario.

59. As has already been recognized in the Nationally Determined Contribution of Cuba presented to the UNFCCC in Paris (Dec. 2015), tackling climate change is a high priority. In line with this national environmental policy, on the mitigation front Cuba will continue to show its commitment to reducing greenhouse gas emissions in accordance with its national circumstances and with the financial and technological resources available, aimed at modernization and technological development on a sustainable basis as well as a strengthening of its capabilities, as proposed in this project for the urban transport sector in the City of La Havana, aligned with climate change mitigation measures, like fostering innovative public policies focusing on Transport Oriented Development (TOD).

60. This project has been structured along four key strategic areas of the national policy for urban transport in order to cope with the mobility of the population for the Havana of the XXI Century, i.e.: i. prioritize public transportation (massive) as the more efficient and accessible form for the majority of the people, ii. encourage the use of non-motorized transport (pedestrians and bicycle paths), iii. discourage the use of individual transportation, and iv. achieve a more comprehensive quality management system to solve identified deficiencies, considering both aspects, security and reliability.

61. This plan sets up a main principle which applies in low-carbon transport development, i.e.: to make the Havana the city of knowledge, welfare, heterogeneity, democracy, inclusion, accessibility, density, protection, ecological and efficiency. This Project responds to the national policy on climate change mitigation, which is currently being revised at the highest political level of Cuba, the Council of Ministers, in response to their commitments with the UNFCCC. As mentioned before, the most relevant is "*the National Policy for the Ordering of Urban Passenger Transport*", validated by the Council of Ministers in 2016 and being implemented at the provincial level under "*the Urban Transport Development Program for the City of La Havana*", by a newly created transport authority for the City of La Havana, the DGTPH.

62. This MSP is directly relevant to Cuba's urban development policy under the leadership of the Institute of Physical Planning and the Provincial Council for the province of La Havana. During its implementation, this project will be integrating urban planning through the "*Land Use and Urban Master Plan*" which promotes, as a general strategy, urban development that results in better quality of life and optimizes resources and services based on adequate zoning and political articulation between the national and provincial levels.

**7. KNOWLEDGE MANAGEMENT OUTLINE THE KNOWLEDGE MANAGEMENT APPROACH FOR THE PROJECT, INCLUDING, IF ANY, PLANS FOR THE PROJECT TO LEARN FROM OTHER RELEVANT PROJECTS AND INITIATIVES, TO ASSESS AND DOCUMENT IN A USER-FRIENDLY FORM, AND SHARE THESE EXPERIENCES AND EXPERTISE WITH RELEVANT STAKEHOLDERS.**

63. The experience to be gained by this MSP in the capital of Cuba in terms of urban planning and climate change mitigation related to urban transport systems will provide three-fold knowledge management: (i) sharing and providing access to the knowledge generated by the project to stakeholders, (ii) networking with four other projects in LAC in order to exchange experiences, and (iii) incrementing the impact of the project. Considering the relevance of innovative actions within the project, proper knowledge management is an opportunity to strengthen the project's delivery potential.

64. First of all, this proposal intends to develop integrated and coherent actions with a variety of stakeholders. Two particular communities of practice in the urban setting of La Havana will participate: public transport policymakers and operators, and urban and zoning city planners. These two communities of practice will be supported by the project through training and professional coaching activities, provision of technical knowledge, and other activities to create and enhance appropriate coordination within existing structures.

65. Second, this project will look for synergies with the other four projects also implemented by UNDP/GEF under CCM 2 in LAC. To begin with, even though it is not part of the Sustainable Cities Integrated Approach Program (SC-IAP), through UNDP and its leading role in the Asuncion Green City of the Americas Project in Paraguay, this project will look for synergies. It will also take advantage of the learning process gained in the framework of the GEF Global Platform to facilitate information exchange and knowledge sharing. This project also offers the knowledge gained by a small metropolitan region with the other transport and urban related projects being considered in San Salvador, Uruguay, and Ecuador.

66. Thirdly, it also creates a space to exchange lessons learned for public awareness and information outreach for other cities on the island, as indicated in Output 2.1.3. It will provide guiding principles for the long-term engagement of policymakers as well as peer-to-peer learning for the City of Santiago de Cuba which faces similar urban environmental degradation and means to tackle it like TOD and PBS, to enhance its urban mobility and climate change resilience. Key notes with lessons learned will be presented to facilitate knowledge exchange with the provincial authorities of the City of Santiago as well as to enable their participation in the foreseen activities for increasing their capacity building on climate change mitigation.

67. An alternative urban transport system for the City of La Havana can take advantage of knowledge management from other BRT systems already implemented in 18 large urban centers in the Americas, of which the only one operating in the Caribbean region is the Urban Metro of San Juan, Puerto Rico. In this regard, impact case study tools for this UNDP/GEF project will be obtained from these existing BRT investments through technical available information of worldwide recognition, like the "Bus Rapid Transit Practitioner's Guide" and the "Bus Rapid Transit Planning Guide", which is a comprehensive resource for planning a bus rapid transit (BRT) system, beginning with project preparation all the way through to implementation.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY**

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

<b>NAME</b>	<b>POSITION</b>	<b>MINISTRY</b>	<b>DATE (MM/dd/yyyy)</b>
Mr. Enrique Moret	Director of International Relations	Science, Technology, and Environment	03/01/2016

## B. GEF AGENCY CERTIFICATION

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

<b>Agency Coordinator, Agency name</b>	<b>Signature</b>	<b>Date (MM/dd/yyyy)</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email</b>
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