

Annex 1. Social and Environmental Screening Template

The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document at the design stage. Note: this template will be converted into an online tool. The online version will guide users through the process and will embed relevant guidance.

Project Information

Project Information	
1. Project Title	Promoting Low-carbon Electric Public Bus Transport in Mauritius
2. Project Number (i.e. Atlas project ID, PIMS+)	PIMS: 6486 Project ID: 00123343 Award ID: 00129770
3. Location (Global/Region/Country)	Mauritius
4. Project stage (Design or Implementation)	Design
5. Date	June 2021

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

QUESTION 1: How Does the Project Integrate the Programming 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 will include measures to assist the Government to realize human rights. UNDP consistently applies the Human Rights Based approach (HRBA) in all programming, taking into account the responsibilities of the duty-bearers and the obligations of the right-holders. Access to clean air is a major human rights issue in both developed and developing countries today, and transport sector is a key contributor to ambient air pollution in many urban and rural areas of developing countries. Besides, climate change is a global issue that infringes on human welfare and rights livelihood. Climate change and air pollution have a disproportionately high impact on population living in Small Island Developing States (SIDS) such as Mauritius, even though their contribution to anthropogenic climate change has been minimal. This project has identified the following Government of Mauritius authorities - Ministry of Land Transport and Light Rail (MLTLR), National Land Transport Authority (NLTA), Ministry of Energy and Public Utilities (MEPU) and Ministry of Environment, Solid Waste Management and Climate Change (MESWMCC) as primary duty-bearers in ensuring climate change mitigation through the reduced air pollution and emission of greenhouse gases in the public transport system in Mauritius. The project will contribute to improving the quality of life for all urban dwellers in the long run through improved air quality as well as through provision of a safer, quieter and more affordable public transportation option, while minimizing the need for inefficient and high air pollution per capita option of private transport. In addition, the project will incorporate women-friendly, senior citizen-friendly and disabled-friendly transport strategies and safety measures for public transport. This project aims at enabling a conducive and affordable market for electric vehicles, creating opportunities for new income generating opportunities for individuals in the urban mobility sector as well as for consumers.

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

A significant proportion of urban women rely on public transportation, namely buses and other pooled transport options. Women's demand for transport and mobility in Mauritius is significant, since women's participation in labor force is over 45% in 2020 (as per World Development Indicators). The Ministry of Gender Equality, Child Development and Family Welfare launched a booklet entitled "Breaking the Silence on Sexual Harassment in Public Transport" (AGDI, 2017), which explains that women are the ones most often victims of sexual harassment in public buses, and the booklet served to educate them on precautionary measures. This UNDP-GEF project will address issues of sexual harassment and women's safety in public transportation by ensuring that the electric buses proposed to be introduced under this project will incorporate modern safety technologies such as CCTV

cameras (inline with a government directive under its Bus Modernization Programme) and smart/intelligent transport systems that would allow authorities in Mauritius to monitor safety issues on public transport buses, thereby deterring potential harassment of women passengers. A gender assessment and action plan prepared for this has also proposed additional activities affect gender equality and women's empowerment. The project will ensure that gender inequalities are not exacerbated. As much as possible, capacity building activities will ensure inclusion of both women and men, as well as persons from disadvantaged backgrounds and minority groups. In addition, opportunities for women empowerment will be identified, especially in form of increased participation of women in the provision of the currently male-dominated transportation services. Bus operators interviewed during stakeholder consultation process of this project informed that they would aim to incorporate women drivers and workshop maintenance staff for their electric bus fleets as a gender equality and mainstreaming measure. A modern and safe outlook of electric vehicles is likely to attract more women job applicants, and hence, bus operators are likely to employ more women as drivers, conductors and technicians for electric buses than they did for diesel buses. This project has included targets for increasing women's participation in public transport system in Mauritius.

Briefly describe in the space below how the project mainstreams sustainability and resilience

This proposed GEF project aims to switch of 60 long route (full-length 12-meter buses) or feeder/last-mile (midi 9-meter buses) diesel buses into electric buses. Detailed computation of CO₂ emission reduction estimates due to deployment of these 60 electric buses and 15 solar powered charging stations are provided in Annex 13. The 60 electric buses to be deployed, which, when deployed, are estimated to operate for about 150 km per day, each e-bus is estimated to reduce atleast 36.6 tons of CO₂e per annum. So 60 buses would achieve direct GHG benefits of 15,184 tCO₂ by 2030. It is important to note that UNEP estimates that each electric bus reduces ~1.7 kg of CO₂ emissions per km of operation, when compared to a diesel bus of similar specifications. However, we have estimated CO₂ emission reductions of this proposed project using a more conservative estimates of e-bus operation due to: (i) grid emission factor of Mauritius currently being high (0.651 tCO₂/MWh) and an assumption that the 60 buses to be deployed under this proposed project are likely to be charged by a combination of solar energy and grid electricity; (ii) 10 of the 60 buses to be deployed under this proposed project will be smaller midi e-buses (for last mile connectivity from Metro Express stations), who are likely to achieve lesser CO₂ emission reduction when compared to full-sized e-buses.

Assuming a combination of solar powered and grid electricity powered charging is used for charging the 60 feeder or long-route e-buses to be used in Mauritius, which, when deployed, are estimated to operate for about 150 km per day, each e-bus is estimated to reduce 36.6 tons of CO₂e per annum when combined with 15 solar powered charging stations of capacity 50 kWp each. So 60 buses would achieve direct GHG benefits of 15,184 tCO₂e by 2030. Consequential GHG benefits are calculated based on a conservative assumption that after the completion of this project's implementation, it would be scaled-up to 100 additional e-buses for public transport in Mauritius over 5 years between 2026 and 2030. At the same conservative assumptions of 1 kg of CO₂e per km of e-bus operation and average of 150 km per day of e-bus operation for the additional 100 buses between 2026 and 2030 (combined with 25 solar powered charging stations), consequential GHG emission reductions from this project are estimated to be 18,311 tCO₂e by 2030. Given the GEF grant sum of US \$5,600,000, the GEF cost per tonne of avoided CO₂eq emissions is about \$167.2.

In terms of number of passenger-trips impacted, based on conservative estimates of 35 passengers carried by each full-length e-bus (typical full capacity of 50 passengers) or midi e-bus (typical full capacity of 40 passengers) per long route or last-mile trip from Metro Express stations to neighborhoods, and assuming each trip to cover 15 km distance; and based on an estimation of 150 km covered by each bus per day, each e-bus is estimated to offer ~350 passenger-trips every day. So 60 full-length and midi e-buses are conservatively estimated to offer ~21,000 passenger trips per day (which is 12.5% of the estimated 80,000 passenger trips per day likely to be offered by MetroExpress once it is fully operational). This works out to ~6.93 Million passenger-trips per annum (assuming 330 days of operations of buses per annum) to be provided by electric bus services that will be deployed with support from this GEF project, when all 60 buses are fully deployed and operational. Hence, this project aims to mainstream climate change mitigation and reduction in air pollution in public transport sector in Mauritius, thereby enabling environmental sustainability and climate resilience. Given the disproportionately negative impact of climate change on a SIDS country such as Mauritius, introducing innovative, smart, low-carbon bus technologies and business models is critical, considering the economy's reliance on imported fossil fuels, a need to achieve energy security, reduce ambient air pollution and increase the economy's vulnerability to climate change.

Briefly describe in the space below how the project strengthens accountability to stakeholders

Extensive stakeholder involvement and consultations have been conducted during project preparation stage (in addition to those conducted during PIF development stage), which involved detailed discussions and understanding of key needs, challenges and recommended solutions from various key stakeholders including key government stakeholders (MLTLR, NLTA, MEPU/CEB and MESWMCC), public/private sector stakeholders (bus operators and MetroExpress), NGOs/civil society stakeholders (collectives of civil society organizations of public transport commuters, environmental impact NGOs), financial institutions (commercial banks that could provide finance for electric buses) and development partners (AFD). Based on these consultations, needs of all key stakeholders – especially commuters, civil society organizations and government stakeholders – have been incorporated in the project design. Training and capacity building activities under this project will ensure inclusion of both women and men, as well as persons from disadvantaged backgrounds and minority groups. In addition, the project will incorporate women-friendly, senior citizen-friendly and disabled-friendly transport strategies and safety measures for public transport. The project will also aim to address any harassment and safety issues for female commuters on public transport in Mauritius, via awareness raising campaigns and using modern technologies such as CCTVs that would be included in the e-buses that are proposed to be deployed under this proposed project.

Safety aspects of women drivers, conductors and technicians working until late in the evening will be incorporated by bus operators deploying electric buses under this project; safety features such as CCTV cameras and trained security staff, protocols (similar to Metro Express) will be incorporated by bus operators to increase safety of women passengers. Electric bus models to be deployed under this project will also consider passenger comfort and safety aspects, especially those of women, pregnant women, women traveling with infants and children, elderly and disabled commuters.

The project will apply adaptive management approach in its implementation. Based on the partnerships defined and firmed up during the project preparation, the management arrangements have anchored on co-operation and mutual sharing of benefits where accountability and responsibility for implementing the project and achieving the project outputs. Such arrangement will also be based on collective decision making through a Project Steering Committee (PSC) composed of the project key stakeholders such as the MLTLR, NLTA, MEPU/CEB and MESWMCC and UNDP.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Complete SESP Attachment 1 before responding to Question 2.</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 5</i>			QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High
Risk Description (broken down by event, cause, impact)	Impact and Likelihood (1-5)	Significance (Low, Moderate, Substantial, High)	Comments (optional)	Description of assessment and management measures for risks rated as Moderate, Substantial or High
<p>Risk 1: Potential limited participation of women in public transportation sector (both as commuters and as electric bus drivers, conductors, workshop technicians).</p> <p>UNDP SES Programming Principle 2 (Gender Equality and Women’s Empowerment): Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>The target of the proposed project is the public transportation sector which is predominantly male dominated. There is a risk that this trend might continue even after the project is implemented. Sexual harassment and women’s safety is also a key consideration for woman using/working in public transportation in Mauritius</p>	<p>As the project is Substantial risk, an ESMF has been prepared with this SESP. During project implementation, further screening, assessment and management plans will be prepared for the downstream activities in accordance with the UNDP SES, as well as scoped SESA(s) for the upstream activities.</p> <p>The project will make deliberate effort to involve both women and men in the various activities, without discrimination. A Gender analysis and action plan includes activities to mainstream gender perspective in the public transport sector</p>

<p>design and implementation or access to opportunities and benefits?</p>				<p>and to address sexual harassment. Additionally, the Stakeholder engagement plan will identify key entry points for articulating gender considerations in all project components from its design to implementation. Safety aspects of women drivers, conductors and technicians working until late in the evening will be incorporated by bus operators deploying electric buses under this project; safety features such as CCTV cameras and trained security staff, protocols (similar to Metro Express) will be incorporated by bus operators to increase safety of women passengers. Electric bus models to be deployed under this project will also consider passenger comfort and safety aspects, especially those of women, pregnant women, women traveling with infants and children, elderly and disabled commuters</p>
<p>Risk 2: Potential environmental hazards associated with waste generated during manufacture of electric vehicle batteries as well as handling batteries that have reached their end-of-life; potential risk of release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local impacts.</p> <p>UNDP SES Project-level Standard 3 (Community Health, Safety and Security): 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 (ex. explosives, fuel and other chemicals during construction and operation)?</p>	<p>I= 4 L= 3</p>	<p>Substantial</p>	<p>Electric vehicle batteries are produced from rare earth metals some of which are not environmentally friendly. Therefore, the disposal of unrecyclable material from battery manufacturers must be handled properly. In addition, when batteries have reached their end-of-life, they also need proper disposal to minimize environmental impact and exposure to the society</p>	<p>The project design incorporates activities (under Component 1) to reduce the risk of hazardous waste from used batteries entering local ecosystems by supporting the government to setup policy and regulatory framework for safe recycling and disposal of battery components in the country. The project will work closely with another UNDP-GEF project titled “Indian Ocean Regional Project - Mauritius - Implementing Sustainable Low and non-Chemical Development in SIDS (ISLANDS)” (PIMS ID 6400, Ministry of Environment, Solid Waste Management and Climate Change as this project’s key implementing partner) to design and implement policies, regulations and enforcement mechanisms for scientific recycling and disposal of solid waste and chemicals generated from batteries used in electric vehicles in general and electric buses in particular. Both UNDP-GEF projects will train key government counterparts to deal correctly with the disposal of electric vehicles batteries. This mitigation measure is at the core of project activities and is intended to generate and enforce the framework and procedures to track possible hazardous waste generated in the medium and long term by the project. It is important to note that this proposed activity under this project (PIMS 6486) to design and develop policies and regulatory frameworks and guidelines for management of hazardous waste from electric bus batteries i will closely work with developed via the other GEF-funded “ISLANDS” project (PIMS 6400) to develop electric bus battery-specific waste management policies, guidelines and regulations in accordance to this electric bus project’s (PIMS 6486) SES. Essentially, the necessary hazardous waste management policies, guidelines and regulations to mitigate this risk under</p>

				<p>this project (PIMS 6486) will be developed by the “ISLANDS” project (PIMS 6400), but in accordance with UNDP SES and SES risk screening and management procedures of this project (PIMS 6486) set out in ESMF. Also, in order to ensure sufficient communication between the 2 projects and to ensure the policies and guidelines are developed in accordance with the UNDP SES, this project’s IP, MLTLR, will be part of project steering committee of ISLANDS project (PIMS 6400). A TA + coordination budget of US\$ 24,000 has been allocated under this electric bus project (please refer Prodoc Annex 8) for consultants to work with the “ISLANDS” project to ensure electric bus battery specific policies, guidelines and regulations are developed in accordance to this project’s SES</p> <p>These and other management measures are further described in Environmental and Social Management Framework (ESMF) of this project that accompanies this SESP document.</p>
<p>Risk 3: Potential occupational health and safety risks associated with electric vehicle repair and decommissioning of battery banks and/or vehicle.</p> <p>UNDP SES Project-level Standard 3 (Community Health, Safety and Security): 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?</p>	<p>I = 3 L = 2</p>	Moderate	<p>Battery Electric Vehicles (BEVs) operate at 3-phase high voltage. Consequently, they must be maintained by properly trained technicians. As expected, most of the existing crop of vehicle repair technicians were trained at a time when electric vehicles were unheard of. Therefore, retraining will be required for the technicians involved in electric vehicle repair or decommissioning.</p>	<p>The project design includes building the capacity of bus drivers and technicians to handle the repair and decommissioning of electric vehicles (under Component 3). In addition, there will be a component for public awareness and campaigns which will be useful to impress on the general public who will own electric vehicles, the need for taking them to repair shops that have the appropriate equipment and training to handle such vehicles. It is expected that electric vehicle manufacturers and dealers will also provide thorough end-user training to avoid accidental injury due to electric shock. These and other management measures are further described in Environmental and Social Management Framework (ESMF) of this project that accompanies this SESP document.</p>
<p>Risk 4: Potential outcomes of the Project could be sensitive or vulnerable to potential impacts of climate change, due to climate change-induced events such as flooding which may have an impact on the ability to drive electric buses in certain flood-prone areas of Mauritius.</p> <p>UNDP SES Project-level Standard 2 (Climate Change and Disaster Risks): Climate Change Mitigation and Adaptation</p>	<p>I = 4 L = 3</p>	Substantial	<p>As a SIDS country, Mauritius is vulnerable to the impact of climate change, such as tropical cyclones, floods and coastal erosion</p>	<p>Climate resilient designs, such as electric buses that can withstand flooding, would be included in the project design specifications; work with the government to reduce the impact of flooding through climate change adaptation of public transport and coastal areas.</p> <p>These and other management measures are further described in Environmental and Social Management Framework (ESMF) of this project that accompanies this SESP document.</p>
<p>Risk 5: Potential risk of Gender Based Violence (GBV) against women on public transport buses deployed under this project in Mauritius.</p>	<p>I = 5 L = 2</p>	Substantial	<p>The target of the proposed project is the public transportation sector which is predominantly male dominated.</p>	<p>The project will make deliberate effort to involve both women and men in the various activities, without discrimination. A Gender analysis and action plan includes activities to mainstream gender perspective in the public</p>

<p>UNDP SES Programming Principle 2 (Gender Equality and Women’s Empowerment): Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?</p>			<p>There is a risk that this trend might continue even after the project is implemented. Risk of Gender Based Violence is a key consideration for woman using/working in public transportation in Mauritius. However, likelihood of GBV on public transport in Mauritius is low since there have been no incidents of GBV reported on public transport buses or MetroExpress in Mauritius over the last 15 years.</p>	<p>transport sector and to address sexual harassment and minimize the threat of Gender Based Violence on public transport buses. Safety aspects of women drivers, conductors and technicians working until late in the evening will be incorporated by bus operators deploying electric buses under this project; safety features such as CCTV cameras and trained security staff, protocols (similar to Metro Express) will be incorporated by bus operators to increase safety of women passengers. Electric bus models to be deployed under this project will also consider passenger comfort and safety aspects, especially those of women, pregnant women, women traveling with infants and children, elderly and disabled commuters.</p> <p>There is evidence that such safety measures (CCTV cameras, trained security staff) have reduced sexual harassment of women on public transport from recent experience of deployment of such measures on MetroExpress project. There have been no incidents of GBV reported on MetroExpress project. Hence, these measures will be strictly implemented and bus operators will be mandated to implement these measures to thwart any possible risks of GBV on public transport buses.</p>
<p>Risk 6: Potential risk of grievances or objections from affected stakeholders</p> <p>UNDP SES Programming Principle 5 (Accountability)</p>	<p>L = 3 I = 3</p>	<p>Moderate</p>	<p>Some risk of grievances or objections can be anticipated from some public transport passengers, since some passengers may find that the low-carbon, modern electric buses with better accessibility features (to be deployed under this project) may not be deployed immediately across all bus routes in Mauritius, since only 60 buses will be deployed (Mauritius has over 1900 public transport buses and replacing all of them will take time). A key goal of this project (as described in the Prodoc) is to improve the quality of public transport especially for poorer, marginalized and elderly/disabled passengers. Public transport passenger</p>	<p>As described in the Prodoc (stakeholder engagement), the project will actively engage with all stakeholders including passengers, to (i) enable active passenger community engagement; (ii) ensure transparency of route selection for electric bus deployment through provision of timely, accessible and functional information; (iii) ensure stakeholders can communicate their concerns and have access to rights-compatible complaints redress processes and mechanisms (GRM).</p> <p>A follow-on project with funding support from GCF and/or other development agencies may also be in the pipeline with this will be actively communicated to passengers to let them know that more electric buses will soon be deployed on other routes as well.</p>

			<p>tariffs will be maintained at affordable levels by the govt (as is evidenced by the affordable tariffs on recently completed MetroExpress project). Hence, the project is designed to be inclusive and not exclusive of marginalized groups or elderly passengers or those with disabilities. The design of electric buses (as described in the Prodoc) will consider accessibility and comfort of elderly, disabled and pregnant women/women with children. However, this project is meant to be a pilot project with only 60 modern, low-carbon electric buses with better accessibility features will be deployed (replacing 60 diesel buses). Mauritius public transport fleet includes over 1900 diesel buses and replacing all of them under this project is not possible. Modern electric buses will be deployed on high impact routes (with high passenger traffic and high potential for CO2 emission reduction) under this project, which may raise some grievances or objections from some passengers who may not commute on these routes and may demand deployment of such modern electric buses immediately on their routes as well.</p>	
<p>Risk 7: Potential occupational health and safety risks to drivers and passengers of electric buses due to physical, chemical, biological and psychosocial hazards throughout the project lifecycle.</p>	<p>I = 3 L = 2</p>	<p>Moderate</p>	<p>Battery Electric Vehicles (BEVs) operate at 3-phase high voltage. Consequently, they must be maintained by properly trained technicians. As expected, most of the existing crop of vehicle</p>	<p>The project design includes building the capacity of bus drivers and technicians to handle the repair and decommissioning of electric vehicles (under Component 3). In addition, there will be a component for public awareness and campaigns which will be useful to impress on the general public who will own electric vehicles, the need for taking</p>

<p>UNDP SES Project-level Standard 3 (Community Health, Safety and Security): 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?</p>			<p>repair technicians were trained at a time when electric vehicles were unheard of. Therefore, retraining will be required for the technicians involved in electric vehicle repair or decommissioning.</p>	<p>them to repair shops that have the appropriate equipment and training to handle such vehicles. It is expected that electric vehicle manufacturers and dealers will also provide thorough end-user training to avoid accidental injury due to electric shock. These and other management measures are further described in Environmental and Social Management Framework (ESMF) of this project that accompanies this SESP document.</p>
<p>Risk 8: Project upstream activities focused on “Sustainable Low Carbon Transport Planning” (Component 1, Output 1.1) and “Policy and Regulatory Framework for E-bus deployment” (Component 1, Output 1.2), and Component 3 may result in “downstream” interventions which may pose potentially some adverse social and environmental risks.</p> <p>UNDP SES Programming Principle 2 (Gender Equality and Women’s Empowerment) or UNDP SES Project-level Standard 3 (Community Health, Safety and Security) or UNDP SES Programming Principle 5 (Accountability)</p>	<p>I= 3 L= 3</p>	<p>Moderate</p>	<p>Proposed activities under Output 1.1 and 1.2, which are focused on transport planning and promulgation of electric bus policy and regulatory mechanism, may fail to consider certain SES risks, such as risks that could reduce equal access to public transport to women or those that may pose health and safety risks to transport sector workers or passengers or certain accountability risks for equitable access to all passengers including marginalized/elderly/disabled passengers</p>	<p>The relevant project activities, including transport planning and policy/regulatory framework development and feasibility assessment activities under Output 1.1, Output 1.2 and Output 3.1 have been designed to consider, evaluate and plan mitigating measures for social and environmental risks through the application of scoped SESA (as required of Substantial risk projects with upstream activities). Budget for evaluation and mitigation of SES risks has been allocated under the consultancy services and contractual services contracts for these activities.</p> <p>Nonetheless, screening procedures for such currently undefined risks have been established in the ESMF to ensure consistency and compliance with UNDP SES.</p>
<p>Risk 9: Locations of solar powered electric bus charging stations have been broadly identified (buildings within the premises of bus depots owned and operated by public transport bus operators) but their precise locations have not been identified yet and could therefore have negative impacts on habitats if not selected appropriately.</p> <p>UNDP SES Project-level Standard 1 (Biodiversity Conservation and Sustainable Natural Resource Management), UNDP SES Project-level Standard 3 (Community Health, Safety and Security) or UNDP SES Project-level Standard 4 (Cultural Heritage) and UNDP SES Project-level Standard 5 (Displacement and Resettlement)</p>	<p>I = 4 L = 2</p>	<p>Moderate</p>	<p>Proposed activities under Outputs 2.1 and 2.2 (especially 2.2) involve providing financial incentive package to public transport bus operators to install electric bus charging stations and grid-tied rooftop solar units to partially offset grid electricity consumed to charge electric buses with clean solar power generated electricity. While the locations of these charging stations and rooftop solar units have been identified as within the premises of bus depots (owned and operated by public transport bus operators), their precise locations have not been finalized at this stage, and hence some risk of negative</p>	<p>During stakeholder consultations held at PPG phase, this risk and related issues have been considered and discussed. One of the bus operators, Rose Hill Transport, has already installed such a rooftop solar system and electric bus charging station within its bus depot in Mauritius (as described in the Prodoc baseline for Output 2.2) without any negative impact on land use and habitats or cultural heritage. Hence, the likelihood of this risk materializing during project implementation is low, although these will be reconfirmed during project implementation. Nevertheless, review of current national laws on human rights, environment, land use and habitats in Mauritius has found that they provide adequate framework to avert such risks due to installation of charging stations and/or any other project sites/activities identified during project implementation.</p> <p>Accordingly, the project will apply a targeted assessments or Environmental and Social Impact Assessment (ESIA) approach during project implementation; as e-mobility is a new issue and the location of charging infrastructure is flexible to some extent, the selection of each of their precise locations will be</p>

			impact on land use or habitats exist	<p>screened in accordance with UNDP SES. Screening procedure for this risk is defined in the ESMF, wherein an initial screening of each selected location for charging stations will be further assessed either via targeted assessments or ESIA (depending on the risk level of each location) and risk management plan with mitigation measures are defined in ESMF.</p> <p>As described in the Prodoc (stakeholder engagement plan), the project will actively engage with all stakeholders) the project will ensure stakeholders can communicate any location related concerns of charging stations to rights-compatible complaints redress processes and mechanisms (GRM).</p>
<p>Risk 10: The Project may directly or indirectly increase national social, environmental and economic vulnerability to climate change due to increased electricity consumption of grid electricity in Mauritius if ongoing/planned investments in renewable electricity generation may slow down or not materialize.</p> <p>UNDP SES Project-level Standard 2 (Climate Change and Disaster Risk); Standard 8 (Standard 8: Pollution Prevention and Resource Efficiency)</p>	<p>I = 4 L = 1</p>	Low	<p>Electric vehicles including electric buses are far more energy efficient when compared to fossil fuel powered vehicles/buses. This is because electricity is a far more efficient transport fuel than diesel and gasoline. Detailed analysis electricity consumption (from grid electricity and solar powered charging stations) and compared it with diesel fuel consumption by existing diesel buses under 'Annex 13' of Prodoc. From these calculations, it is clear that electric buses will actually reduce overall energy consumption from the transport sector (and hence, also bring about reduced CO2 emissions) in Mauritius.</p> <p>Nevertheless, these electric buses would still consume electricity from the national grid in Mauritius which is generated from all sources of energy including fossil fuels. Even though substantial investments have been made and planned to increase deployment of renewable energy sources such as Wind, Solar and grid-</p>	<p>Though this risk is considered low, the following measures are necessary because the project is overall categorized as Substantial.</p> <p>Current energy sector policies, planning and investments in Mauritius are clearly geared towards increasing the share of RE sources. Substantial investments have already been made in deployment of Wind, Solar and grid-connected energy storage capacity in recent years, and additional investments have also been planned. Nevertheless, energy sector planning and policies and regulations have not anticipated a significant increase in electricity demand due to electric mobility. While larger interventions in energy policy is beyond direct control of this GEF Project, activities planned under this project (activities 1.2.2, 1.3.1, 3.1.2) will contribute to increased understanding and recognition of electricity demand from e-mobility and hence, may result in energy sector planning to take e-mobility into account.</p> <p>The project has also considered this in its design, reflected in the project's financial and technical support for setting up rooftop solar units by bus operators to offset some portion of grid electricity consumed (estimated to be 31% of all electricity consumed for charging electric buses deployed under this project) with clean electricity generated from solar power. The increase in RE-capacity is monitored in the Results Framework (GEF Core Indicator 6.4).</p> <p>During project implementation, the project's IP, MLTLR, will monitor the consumption of grid and solar powered electricity by electric buses and work with energy sector stakeholders – MEPU and CEB – under its Working Group 1 arrangement (described in Stakeholder Engagement Plan) to</p>

		connected energy storage, if some of these planned investments in renewable energy do not materialize, introduction of electric buses under this project may result in increase in grid electricity consumption	minimize this risk. Necessary screening procedures and risk management plans are defined in the ESMF.
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QUESTION 4: What is the overall project risk categorization?

Low Risk	<input type="checkbox"/>	
Moderate Risk	<input type="checkbox"/>	
Substantial Risk	<input checked="" type="checkbox"/>	Overall, project is Substantial risk. Substantial project risk is seen due to potential environmental hazards associated with waste generated during manufacture of electric vehicle batteries as well as handling batteries that have reached their end-of-life
High Risk	<input type="checkbox"/>	

QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)

Question only required for Moderate, Substantial and High-Risk projects

<u>Is assessment required? (check if "yes")</u>	<input checked="" type="checkbox"/>		Status? (completed, planned)
<i>if yes, indicate overall type and status</i>		<input checked="" type="checkbox"/>	Targeted assessment(s) Completed during PPG: stakeholder analysis, gender analysis
		<input checked="" type="checkbox"/>	ESIA (Environmental and Social Impact Assessment) Planned during implementation (scoped)
		<input checked="" type="checkbox"/>	SESA (Strategic Environmental and Social Assessment) Planned during implementation (scoped)
<u>Are management plans required? (check if "yes")</u>	<input checked="" type="checkbox"/>		
<i>if yes, indicate overall type</i>		<input checked="" type="checkbox"/>	Targeted management plans (e.g. Gender Action Plan, Emergency Response Plan, Waste Management Plan, others) Completed during PPG: stakeholder engagement

				plan, gender action plan
		<input checked="" type="checkbox"/>	ESMP (Environmental and Social Management Plan which may include range of targeted plans)	Planned during implementation (scoped)
		<input checked="" type="checkbox"/>	ESMF (Environmental and Social Management Framework)	Completed during PPG
	Based on identified risks, which Principles/Project-level Standards triggered?		Comments (not required)	
	Overarching Principle: Leave No One Behind			
	Human Rights	<input checked="" type="checkbox"/>	Gender analysis and action plan Environmental and Social Management Framework (ESMF)	
	Gender Equality and Women's Empowerment	<input checked="" type="checkbox"/>	Gender analysis and action plan	
	Accountability	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	1. Biodiversity Conservation and Sustainable Natural Resource Management	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	2. Climate Change and Disaster Risks	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	3. Community Health, Safety and Security	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	4. Cultural Heritage	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	5. Displacement and Resettlement	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	6. Indigenous Peoples	<input type="checkbox"/>		
	7. Labour and Working Conditions	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	
	8. Pollution Prevention and Resource Efficiency	<input checked="" type="checkbox"/>	Environmental and Social Management Framework (ESMF)	

Final Sign Off

Final Screening at the design-stage is not complete until the following signatures are included

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.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
INSTRUCTIONS: The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the SES toolkit for further guidance on addressing screening questions.		
Overarching Principle: Leave No One Behind Human Rights		Answer (Yes/No)
P.1	Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
P.2	Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	No
P.3	Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	No
<i>Would the project potentially involve or lead to:</i>		
P.4	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
P.5	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities? ¹	Yes
P.6	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?	No
P.7	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Gender Equality and Women’s Empowerment		
P.8	Have women’s groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
<i>Would the project potentially involve or lead to:</i>		
P.9	adverse impacts on gender equality and/or the situation of women and girls?	No
P.10	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes
P.11	limitations on 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
P.12	exacerbation of risks of gender-based violence? <i>For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.</i>	Yes

¹ Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, sexual orientation, gender identity, 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 and transsexual people.

Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below		
Accountability		
<i>Would the project potentially involve or lead to:</i>		
P.13	exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	Yes
P.14	grievances or objections from potentially affected stakeholders?	Yes
P.15	risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	No
Project-Level Standards		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
<i>Would the project potentially involve or lead to:</i>		
1.1	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	activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) 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?	Yes
1.3	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)	Yes
1.4	risks to endangered species (e.g. reduction, encroachment on habitat)?	No
1.5	exacerbation of illegal wildlife trade?	No
1.6	introduction of invasive alien species?	No
1.7	adverse impacts on soils?	No
1.8	harvesting of natural forests, plantation development, or reforestation?	No
1.9	significant agricultural production?	No
1.10	animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11	significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.12	handling or utilization of genetically modified organisms/living modified organisms? ²	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development) ³	No
1.14	adverse transboundary or global environmental concerns?	No
Standard 2: Climate Change and Disaster Risks		
<i>Would the potentially involve or lead to:</i>		

² See the [Convention on Biological Diversity](#) and its [Cartagena Protocol on Biosafety](#).

³ See the [Convention on Biological Diversity](#) and its [Nagoya Protocol](#) on access and benefit sharing from use of genetic resources.

2.1	areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunami or volcanic eruptions?	No
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change? <i>For example, through increased precipitation, drought, temperature, salinity, extreme events</i>	Yes
2.3	direct or indirect increases in vulnerability to climate change impacts or disasters 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>	Yes
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	No
Standard 3: Community Health, Safety and Security		
<i>Would the potentially involve or lead to:</i>		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	Yes
3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	No
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	No
3.4	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes
3.8	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.9	influx of project workers to project areas?	No
3.10	engagement of security personnel to protect facilities and property or to support project activities?	No
Standard 4: Cultural Heritage		
<i>Would the project potentially involve or lead to:</i>		
4.1	activities adjacent to or within a Cultural Heritage site?	Yes
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No
4.3	adverse impacts to 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
4.4	alterations to landscapes and natural features with cultural significance?	No
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
<i>Would the project potentially involve or lead to:</i>		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	Yes

5.2	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	risk of forced evictions? ⁴	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	Yes
Standard 6: Indigenous Peoples		
<i>Would the project potentially involve or lead to:</i>		
6.1	areas where indigenous peoples are present (including project area of influence)?	No
6.2	activities located on lands and territories claimed by indigenous peoples?	No
6.3	impacts (positive or negative) to 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 screening question 6.3 is “yes”, then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk</i>	No
6.4	the 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	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 5 above</i>	No
6.7	adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8	risks to the physical and cultural survival of indigenous peoples?	No
6.9	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.</i>	No
Standard 7: Labour and Working Conditions		
<i>Would the project potentially involve or lead to: (note: applies to project and contractor workers)</i>		
7.1	working conditions that do not meet national labour laws and international commitments?	No
7.2	working conditions that may deny freedom of association and collective bargaining?	No
7.3	use of child labour?	No
7.4	use of forced labour?	No
7.5	discriminatory working conditions and/or lack of equal opportunity?	No

⁴ Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

7.6	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes
Standard 8: Pollution Prevention and Resource Efficiency		
<i>Would the project potentially involve or lead to:</i>		
8.1	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
8.2	the generation of waste (both hazardous and non-hazardous)?	Yes
8.3	the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No
8.4	the use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention</i>	No
8.5	the application of pesticides that may have a negative effect on the environment or human health?	No
8.6	significant consumption of raw materials, energy, and/or water?	Yes