



Enabling Electric Vehicles (EVs) Adoption in the framework of Sustainable energy based Transportation in Bangladesh

Part I: Project Information

Name of Parent Program

Global Programme to Support Countries with the Shift to Electric Mobility.

GEF ID

10640

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Enabling Electric Vehicles (EVs) Adoption in the framework of Sustainable energy based Transportation in Bangladesh

Countries

Bangladesh

Agency(ies)

UNDP

Other Executing Partner(s)

Ministry of Road Transport and Bridges ? Road Transport and Highways Division (RTHD)

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Stakeholders, Communications, Public Campaigns, Awareness Raising, Behavior change, Education, Civil Society, Academia, Non-Governmental Organization, Private Sector, SMEs, Large corporations, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Capital providers, Type of Engagement, Consultation, Information Dissemination, Participation, Partnership, Gender Equality, Gender Mainstreaming, Women groups, Beneficiaries, Capacity, Knowledge and Research, Knowledge Exchange, Learning, Innovation, Knowledge Generation, Capacity Development, Focal Areas, Climate Change, Climate Change Mitigation, Sustainable Urban Systems and Transport

Sector

Transport/Urban

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

3/3/2022

Expected Implementation Start

9/15/2022

Expected Completion Date

9/15/2026

Duration

48In Months

Agency Fee(\$)

161,009.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-2	Promote innovation and technology transfer for sustainable energy breakthroughs for electric drive technologies and electric mobility	GET	1,788,991.00	20,400,000.00
Total Project Cost(\$)			1,788,991.00	20,400,000.00

B. Project description summary

Project Objective

To create enabling conditions towards the transformation of the transport sector of Bangladesh to low carbon and sustainable transportation system by adopting electric vehicles (EVs) that facilitate reducing the GHG emissions, enhancing green growth, and minimizing the adverse impact on public health; and support key stakeholders in the development of viable e- mobility business models

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
--------------------------	-----------------------	--------------------------	-------------------------	-------------------	----------------------------------	-----------------------------------

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1.Streamlining energy, transport legislation, regulation, and policies, and EV charging policy and regulations for electric vehicles	Technical Assistance	1.Enhanced readiness for the sustainable development of the market for 2-3 wheelers and 4-wheelers and charging infrastructure	<p>1.1 Assessment of feasibility and requirements for the development of EV market and charging infrastructure</p> <p>1.2 Streamlined policies, legislation, regulations and road map for EV penetration public and private transport and EV charging infrastructure are adopted</p> <p>1.3 Feasible strategy and proposed regulation for environmentally sound end-of-life management and recycling of batteries</p> <p>1.4 EV assemblers and component manufacturers are increasing production of standardized products</p> <p>1.5 EV financial mechanism(s) developed and agreed on</p>	GET	289,469.00	350,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2.Demonstration of electric vehicle charging stations (proof of concept)	Technical Assistance	Pilot investments enabled for electric buses and charging facilities and demonstrated market development of low-carbon charging infrastructure (with a focus on two and three-wheelers)	2.1 Feasibility assessed and strategy on e-buses and charging infrastructure options formulated 2.3 Feasibility assessed and strategy on (solar-hybrid) charging infrastructure formulated	GET	194,824.00	350,000.00
2.Demonstration of electric vehicle charging stations (proof of concept)	Investment	Pilot investments enabled for electric buses and charging facilities and demonstrated market development of low-carbon charging infrastructure (with a focus on two and three-wheelers)	2.2 Pilot on electric buses and charging implemented 2.4 Demonstration of solar hybrid EV charging stations 2.5 Pilot on EV battery collection for sustainable recycling and battery swapping implemented	GET	624,885.00	16,950,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
3. Knowledge products and capacity building in EV ecosystem and sustainable battery management	Technical Assistance	3.Awareness created and capacity of key-stakeholders built, and knowledge shared on EV ecosystem	<p>3.1 Knowledge exchange and benchmarking between countries (facilitated by UNEP Global E-mobility support)</p> <p>3.2 Monitoring, reporting and verification of demos and GHG emissions</p> <p>3.3 National promotion and awareness campaign</p> <p>3.4 Technical capacity is built in the EV ecosystem and on sound battery management</p> <p>3.5 Programs to address social, gender, safety, and employment issues</p>	GET	453,528.00	300,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Monitoring and evaluation (M&E)	Technical Assistance	Monitoring and evaluation (M&E)	1. Inception workshop 2. Inception Report 3. Monitoring of indicators in the project results framework 4. GEF Project Implementation Report (PIR) 5. Supervision and oversight missions 6. Final project workshop 7. Independent Mid-Term Review (MTR) 8. Independent Terminal Evaluation (TE)	GET	63,650.00	375,000.00
Sub Total (\$)					1,626,356.00	18,325,000.00
Project Management Cost (PMC)						
	GET		162,635.00		2,075,000.00	
	Sub Total(\$)		162,635.00		2,075,000.00	
	Total Project Cost(\$)		1,788,991.00		20,400,000.00	

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Road Transport and Bridges (MoRTB) - RTHD	In-kind	Recurrent expenditures	3,050,000.00
Recipient Country Government	Ministry of Environment, Forests and Climate Change - DoE	In-kind	Recurrent expenditures	200,000.00
GEF Agency	UNDP	In-kind	Recurrent expenditures	100,000.00
Recipient Country Government	Ministry of Road Transport and Bridges (MoRTB) - RTHD	Public Investment	Investment mobilized	16,950,000.00
GEF Agency	UNDP	Grant	Recurrent expenditures	100,000.00
Total Co-Financing(\$)				20,400,000.00

Describe how any "Investment Mobilized" was identified

Co-financing investment (INV) is identified as part of the MoRTB co-financing. Details are provided in the table on ?contributions from the baseline, the GEFTF, and co-financing? further on the text

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Bangladesh	Climate Change	CC STAR Allocation	1,788,991	161,009	1,950,000.00
Total Grant Resources(\$)					1,788,991.00	161,009.00	1,950,000.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

45,872

PPG Agency Fee (\$)

4,128

Agency	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Banglades h	Climat e Change	CC STAR Allocation	45,872	4,128	50,000.00
Total Project Costs(\$)					45,872.00	4,128.00	50,000.00

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	15657	0	0
Expected metric tons of CO ₂ e (indirect)	0	217073	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)		15,657		
Expected metric tons of CO ₂ e (indirect)		217,073		
Anticipated start year of accounting		2022		
Duration of accounting		15		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)		6,401,616		

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
Solar Photovoltaic select		1,441.00		

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		336,380		
Male		336,230		
Total	0	672610	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

1) *The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)*[1]¹;

1. 1. According to the Third National Communication (NC3, 2018), greenhouse gas (GHG) emissions amounted to 69.87 million tons of CO₂ (MtCO₂) in 2012. The transport sector accounted for 11.5% of total GHG emissions amounting to 8.44 MtCO₂ (of the transport sector's GHG emissions, 74% from road transport, 23% each from rail and aviation, and 3% from water transport). The NC3 further mentions that by 2030 emissions from transport in the business-as-usual scenario would increase by 118% to 37 MtCO₂ by the year 2030. Total emissions increased to 83.6 million tons in 2016, of which 12% in the transport sector (9.8 million tCO₂) and 94.2 million tCO₂ in 2020[1].

[1] Source: <https://www.worldometers.info/co2-emissions/bangladesh-co2-emissions/>; <https://ourworldindata.org/co2/country/bangladesh>. In 2020, Bangladeshi's annual GHG emissions were 0.27% of global CO₂ emissions (34.81 billion CO₂)

2. Bangladesh's rapid growth in infrastructure and industrial development led to vehicular growth especially based on fossil fuels, reliance on private modes of transport due to limited public transportation and on informal transport modes. The **development challenge** the Project seeks to address is that Bangladesh faces a huge increase of fossil-fuel-based land transportation system that is deteriorating air quality, leading to increasing GHG emissions at the local and global levels, providing adverse impacts on public health and slowing down green growth?

3. One option to address the development challenge will be the *introduction and adoption of e-mobility through the wide-spread use of electric vehicles (EVs) in cities, towns and rural areas of the country (comprising cars, battery-operated two or three-wheelers, buses) charged by the national grid or in hybrid with renewable energy generation?*:

? *Electric buses.* The transitioning to an electric bus fleet in a rapidly expanding public bus system presents an enormous opportunity for Bangladesh to reduce urban air pollution. The Bangladesh

BRTC is planning to buy 50 battery-only electric buses to be operated on one of the newly planned BRT (bus rapid transit) bus lines in Dhaka with appropriate charging infrastructure for the e-buses. This will be the first introduction of electric buses in the country

- ? *Electric two-wheelers and three-wheelers.* A huge leap in demand for the use of electric tri-wheelers (motorised rickshaws) over the past years has taken place. Electric three-wheelers commonly known as 'easy bikes' (about 1 million) or auto-rickshaws (about 240,000-500,000) have proliferated informally in district towns and rural areas of Bangladesh, facilitating the transportation of about 250 million people in the country;
- ? *Electric passenger cars.* a few thousand full-hybrid EV (electric vehicles) are sold annually, but only 10% are plug-in hybrid while the market for battery-only electric vehicles (BEV) is virtually non-existent in Bangladesh. In many countries, introducing full battery vehicles in the taxi sector is promising. However, only a few companies operate in Bangladesh and most taxis are owned by private individuals that partner with App-based companies such as Uber. In large cities, people move by bus or microbus and in rural areas and small towns by microbus and the ubiquitous three-wheelers;
- ? *Charging infrastructure.* Public electric vehicle charging is virtually non-existent. Electric vehicles (two-, three and four-wheelers alike) are charged at home or in garages (where the vehicles are parked overnight). The country has about 10-20 EV charging points (catering for two/three-wheelers), partly powered by solar, with a total capacity of around 300 kW.
- ? *Battery disposal and recycling.* The battery industry, one of Bangladesh's largest manufacturing sectors, is rapidly expanding, given the large number of electric two and three-wheelers that use lead-acid batteries (LAB). The current market size (of automotive and non-automotive LAB is worth about USD 130 million. About 30-40 companies in Bangladesh are manufacturing LAB (lead-acid batteries), but the market is dominated by a few manufacturers. Most components of a LAB are recyclable or reusable. Used lead-acid batteries ULABs are currently either delivered to recyclers intact or in different components. There are four to six DoE-approved recyclers in the country (some manufacturers recycle as well). About 1,100 recycling plants are operated informally across the country and recycle about 50-80% of the total national demand. Unregulated and informal recycling causes significant environmental pollution (lead leakage in the soil and ground water) and major public health issues.

4. The use of electric tri-wheelers (easy bikes and motorised rickshaws) over the past years in suburban and rural areas of Bangladesh has increased tremendously. However, most three-wheelers are not formally registered which inhibits proper action by government entities to address the issue of environmentally unsound used EV battery handling and makes that planning of charging infrastructure in suburban and rural areas (which would imply catering for 'illegal EV three-wheelers by authorities) cannot be effected. Although private car producers recently announced plans to invest in EV and EV component manufacturing for export and local market, these have remained on paper so far; currently, a few plug-in hybrids and virtually no four-wheel BEV are driven in Bangladesh. Market development is hampered by the fact that private car ownership per capita in Bangladesh is lower compared to other

similar countries. The high initial cost, lack of public charging facilities and concerns about driving range and maintenance facilities act as deterrents. In overcrowded Dhaka, there is a notable lack of space (for parking) and this will negatively influence plans for public EV charging facilities, whether public or private at shopping malls or offices.

2) *the baseline scenario and any associated baseline projects*^[3]²,

5. Official data do not distinguish (yet) between the motor type of the vehicle (registration of electric vehicles in general as a separate category as only approved in 2021), so data on the electric vehicle can be approximate estimates only. About 2.96 million two-wheelers were registered with BRTA by mid-2020 (up from 760,000 in 2010)^[4]³. There were an estimated 600,000 electric two-wheelers in 2018 according to one estimate,^[5]⁴

6. Most three-wheelers are not registered at all; officially, there are about 300,000 three-wheelers registered with BRTA (by mid-June 2020, up from 128,000 in 2010). The actual (non-registered) number may be 5 times higher, as a huge leap in demand for the use of electric tri-wheelers (motorised rickshaws) has taken place in suburban and rural areas of Bangladesh. over the past years

7. There were about 369,000 registered private cars in Bangladesh by mid-2020, which is low for a country with a population size like Bangladesh (164 million in 2020). Sales of hybrid four-wheel EVs is picking up (from about 1,500 in 2017 to about 6,000 in 2020), but 90% are full-hybrid vehicles (where the battery cannot be charged independently and only when the petrol/diesel motor operates). Only 10% are plug-in hybrids (these are usually charged at home), while the four-wheeler battery-only EV (BEV) market is still virtually non-existent in Bangladesh.

8. The Government of Bangladesh has only recently approved the 'Automobile Industry Development Policy' that aims to increase the share of EVs to at least 15% of all registered vehicles by 2030 but there is no 'action plan' with targets per type of vehicle or road map detailing how the targets can be achieved and what regulations and incentives are needed to promote a (commercial) EV market. There continues to be no formal government recognition yet of electric three-wheelers. The argument from the Government side has been that such vehicles are not 'technically sound?'. However,

it is the type of bans and lack of permits that have led to mushrooming of unregistered electric and non-electric three-wheelers.

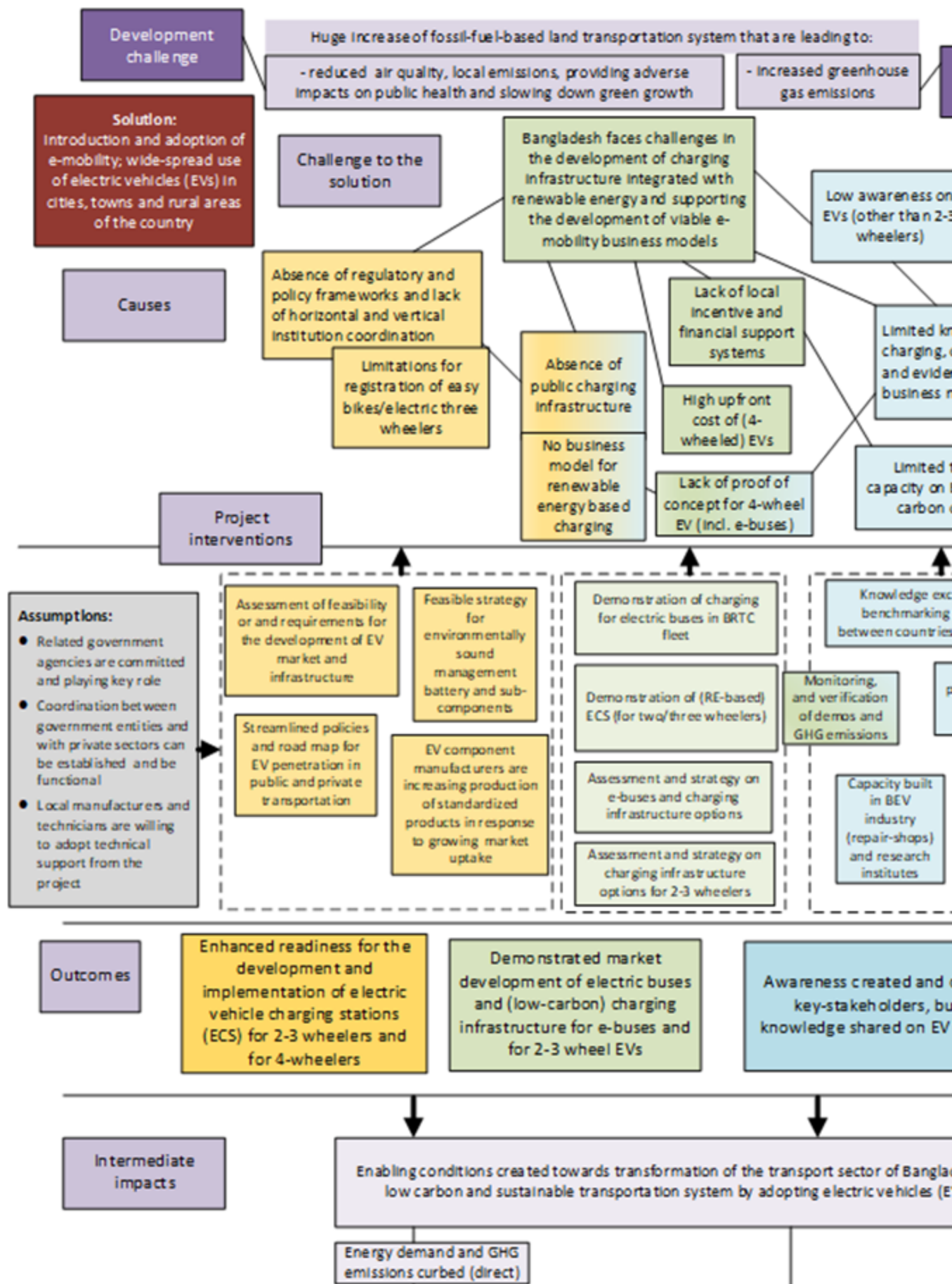
9. There is no public charging infrastructure in the country, apart from a few solar-powered charging stations, in contrast to the network of public filling stations in Bangladesh that cover fossil fuel vehicles. Rickshaws and two-wheel electric bikes (and hybrid four-wheelers) rely on charging is most likely done with residential connections (thus relying on fossil fuel-based electricity) at home or rented garages. While charging at home may be sufficient for two and three-wheelers, the availability of public (and semi-public, e.g., at shopping malls) charging points will be essential to extend the range for limited-range (battery) four-wheel BEV drivers (to allow long-distance driving). Without charging infrastructure development, it is very unlikely for the country to meet the 2030 deadline of 15% EV adoption. There is no experience with Bangladesh-relevant business models for the commercial operation of charging infrastructure. Appropriate business models for investment, ownership and operation of the EV charging infrastructure (private, public, private-public) need to be tried out and evaluated for applicability in Bangladesh, starting with public transport (electric buses) and catering for the already existing market of electric two/three-wheelers.

10. Electric buses are still a novel technology and there have been no experiences with electric buses in Bangladesh or with fast-charging stations for electric buses which in the business-as-usual scenario without this project would be unlikely to be purchased. Despite advances in neighbouring countries, such as India, there is generally a lack of awareness in the government (and private) sector on the benefits of new technology. Without any pilot initiative, the technical feasibility, economic effectiveness and appropriate business model in the Bangladesh-specific context will remain uncertain. In particular, it will remain unclear how higher investment costs balance out against lower lifetime operation and maintenance costs. The Project will cooperate with the BRTC program ?Procurement of Electric Single Decker AC Bus? to which the government (MoRTB) will contribute at least USD 15 million, while discussions have been opened with development partners, such as the Asian Development Bank and the Republic of Korea, and others on the financing of this initiative.

11. Lead-acid batteries (LAB) have been most successful in conventional fuel vehicles. Major drawbacks are regular battery replacement and the environmental issues associated with the use of lead batteries. Due to their low cost, lead-acid batteries are also commonly deployed for EV tri-wheelers in Bangladesh and this raises specific concerns at different stages of manufacturing, recycling and disposal. The prevalence of unsound used lead-acid battery (ULAB) recycling is driven by several factors, including a lack of capacity and reverse logistics systems in the formal recycling sector. Some of the major battery manufacturers, such as Rahimafrooz have been setting up a smelting plant to recycle the recovered lead from the used batteries, running awareness campaigns among the battery users, and encouraging owners to avail themselves of the buy-back benefits offered by the company for

used batteries. The Project will further stimulate such efforts by the pilot activity on disposal and recycling of three-wheeler and two-wheeler batteries.

Theory of change: challenges and project interventions



3) the proposed alternative scenario with a description of outcomes and components of the project[1]

12. The UNDP/GEF project aims to increase the penetration of 4-wheeled EVs in Dhaka's public transport by demonstration of electric buses (and charging infrastructure needed) and the adoption of solar-hybrid charging infrastructure (with a focus on two- and three-wheelers outside the major cities) within an enhanced institutional framework with appropriate regulations for EVs and charging stations and environmentally sound battery disposal and recycling, accompanied by and tailored capacity building for technicians and awareness-raising amongst decision-makers in government and private sector and the public at large. **The 'Theory of Change' diagram on the previous page summarizes how the project's outcome and outputs envisage to address identified barriers and gaps.**

13. The table below provides an overview of the 'Child project' concept' in column 2 (of which the text has been copied from the Annex to 'Global Programme to Support Countries with the Shift to Electric Mobility-2nd Phase', Project Framework Document, PFD). The PFD mentions that the 'project will complement the baseline situation to address the key challenges arising out of a) unregulated and fragmented development of EV markets leading to further use of unsustainable sources of energy for charging EVs and b) lack of coordinated ecosystems (standards, policies, regulations, financing) to support sustainable charging infrastructure and c) information and capacity barriers at different levels'. It further mentions that 'The GEF support is aimed to streamline the energy and transport interventions with a coordinated effort for transformative impacts on EV sector through a set of project components briefly described below. The project primarily focuses on setting up ECS (electric vehicle charging stations) that source energy sustainably within an overall conducive framework for EV deployment in Bangladesh. Given the above baseline, the project would be targeting two/three wheelers (easybikes and battery-operated rickshaws) and potentially also electric cars'.

14. There are no major deviations from the PIF's objectives of addressing barriers to EV and EV charging station introduction, but there are some differences at the activity level and types of EV involved. First, regarding two-three wheelers, there is increased attention to the important issue of environmentally sound disposal and recycling of lead-acid batteries. Regarding four-wheel electric vehicles, the conditions in terms of readiness of the EV ecosystem to support pilot or demonstration was found not to be met yet. Rather than supporting pilot/demonstrations with passenger cars, the focus is on a) the development of a sound policy-institutional-regulatory framework for the EV ecosystem as a condition for the introduction of four-wheeled battery-only electric vehicles, and b) support existing plans by the bus company BRTC to introduce 50 electric buses in one of their BRT (bus rapid transport lines) in terms.

15. **The Project will technically and financially support a pilot activity with 50 electric buses (as part of an electric bus program implemented by Bangladesh Road Transport Corporation) and its charging infrastructure (with GEF INV support for three charging facilities) and the demonstration of**

solar/hybrid charging infrastructure (for small EV outside major cities, such as two- and three-wheelers) with 190 kW of solar (of which GEF INV support for charging facilities with a total of 48 kW of solar PV). It is estimated that about USD 16.95 million of investment in EV infrastructure (including buses and charging stations) will be leveraged from a GEF grant of almost USD 1.789 million, delivering lifetime direct emission reduction (from expected investments, co-financing for EV and for charging facilities as well as GEF INV) of 15,657 tCO₂. There is no private charging station in BEEVA in the main cities (only outside). The issue will be looked at but an obvious option (if the market for EV cars would pick up) is not to use new land, the focus would be on using existing fuel pump station or parking lots and devote same space to EV charging. Given shortage public entities (e.g., power companies) should take a lead, while over time support may be provided to the private sector for setting up charging station network in major cities (i.e. concessional land lease, grant for purchase of charging equipment. In the context of the Project, the e-buses will use lithium-ion batteries and will be recycled as part of the old bus recycling. New regulations proposed will require all EVs to have lithium-ion batteries (or highly efficient other types), prohibiting lead-acid for use in EV after 31/12/2025. Regarding 3-wheelers, these currently use lead-acid batteries and will informally use lead-acid batteries. This is explained in detail in section 2.2.1 and Box 10 in the Project Document. Enhancing the recycling and recovery of heavy metals and other pollutants is a social issue and is therefore subject of separate outputs in the BEEVA project document, namely Output 1.3. Finally, mechanisms for public procurement for EVs and charging stations and also other financial incentives do not exist in Bangladesh yet. Nevertheless, the project will invest in developing country's first financial mechanism under the new output 1.5. Also, the activity 1.2.6. on government procurement and activity 1.2.6 on incentives-regulations will contribute towards these gaps in the EV sector.

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
Component 1 -Streamlining energy, transport policies, and EV charging policy and regulations for electric vehicles	Component 1 - Streamlining energy, transport policies - ECS policy and regulations for low carbon transformation of transportation sector:	
1.1 Assessment of feasibility and requirements for the development of EV market and infrastructure	Under this component, the project will	The PFD describes targeting 2-3 wheelers (easy-bikes and battery-operated rickshaws) and potentially also electric

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
1.2 Streamlined policies, legislation, regulations and road map for EV penetration in public and private transport and EV charging infrastructure are adopted	address some of the policy, regulatory and other institutional gaps identified in evolving low carbon energy-integrated-mobility frameworks with a particular emphasis on a) setting up charging infrastructure based on sustainable energy; b) exploring policy and regulatory options such as tariffs, incentive structures, taxes, safety regulations, and preferential parking, Time-of-Day tariff structure for promoting charging at off-peak hours, etc., c) environmental consideration such as collection, re-use and recycling of batteries. This would be further mainstreamed by preparing an EV roadmap that would serve as a guide for EV market players.	cars. However, it is important to support the formulation of an appropriate policy-legal-regulatory framework that will favour the future introduction of four-wheel electric cars and that address the environmental aspects of the current market of about 1.5 million electric two/three-wheelers (environmentally safe battery use and disposal as well as viable business models for solar-hybrid charging stations).
1.3 Feasible strategy and proposed regulation for environmentally sound end-of-life management and recycling of batteries		More attention has been given to the environmentally sound management of batteries. Buses will use lithium batteries and will be recycled as part of the old bus recycling. New regulations proposed will require all EVs to have Li batteries (or highly efficient other types), prohibiting lead-acid for use in EV after 31/12/2025. Regarding 3-wheelers, these currently use lead-acid batteries and will informally use lead-acid batteries (see section 2.2.1 and Box 10 in the Project Document. Enhancing the recycling and recovery of heavy metals and other pollutants is a social issue and is therefore subject of separate outputs in the BEEVA project document, namely Output 1.3.
1.4 EV assemblers and component manufacturers are increasing production of standardized products		The EV Roadmap will include a specific section on the procurement of electric vehicles in the government automotive fleet. A separate output has been added on the assessment and definition of workable EV financial tools.
1.5 EV financial mechanism(s) developed and agreed on		

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
Component 2 - Markets and investments enabled for ECS (?proof of sustainable energy - transport integrated concept?) for 2-3 wheelers	2. Implementation of selected low carbon interventions in cities including piloting innovations	
2.1 Feasibility assessed and strategy on e-buses and charging infrastructure options formulated	This component will propose de-risking private sector investment approaches with two sets of interventions linking to technical assistance and	Component 2 will look at the assessment/feasibility of charging options for electric buses and solar/hybrid charging stations for two-three wheeled vehicles. Regarding two-three wheelers, the option of a solar-hybrid charging station will be supported with some GEF investment support (50-60%) in combination with grants and/or loans from Bangladesh
2.2 Pilot on electric buses and charging implemented (INV)		
2.3 Feasibility assessed and strategy on (solar-hybrid) charging infrastructure formulated		
2.4 Demonstration of solar hybrid EV charging stations (INV)		

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
<p>2.5 Pilot on EV battery collection for sustainable recycling and battery swapping implemented (INV)</p>	<p>financial leveraging. A range of possible interventions in a grid-connected charging station, solar charging station, renewable energy and energy efficiency will be identified based on EV types for selected cities such as Dhaka, Chittagong, Khulna and Rajshahi and in sub-urban/rural areas. A preliminary assessment/ technical feasibility will be conducted to find out the requirement of charging stations for the EV. Tentatively, 35 EV Charge Stations are being proposed for different EV types (or 2-3 wheelers ? easybikes, but also likely for cars). Without the GEF project, it is unlikely that the transport interventions will be fully integrated to low carbon renewable energy sources and that integrated approaches are adopted. The project will also address the barriers faced in</p>	<p>institutions (to be identified, possibly the development bank IDCOL). One variant will look at integrating vehicle charging with solar irrigation pumping to take advantage of idle solar capacity outside the irrigation season. A total generating capacity of about 104 kW (of which 48 kW solar), partly supported with GEF INV plus more co-financing destined for another 312 kW (191 kW solar); a total of 12 stations. This is less than the 35 stations envisaged in the PFD Annex, reflecting a shifting focus of the Project of pilot/demo of e-buses and lead-acid battery management for which GEF INV has been made available too.</p> <p>Regarding 4-wheelers, there is a clear focus on piloting EV in public transport, i.e., electric buses and charging in Dhaka. BRTC is planning to acquire 50 electric buses and the Project will financially support three superfast charging facilities (with a capacity of about 300 kW each) that can power up to 5 to 10 buses each a day. In return, the government will make available co-financing for all the -buses and for the charging facilities.</p> <p>A third pilot is on having existing repair shops as a collection point for the sustainable disposal/material re-use of used batteries. The two-three wheeler solar/hybrid charging stations (mentioned above) can also act as a battery collection point and offer services for battery swapping (reducing customers' waiting time).</p> <p>The pilots will be monitored. Lessons learned from the pilot/demos will provide useful information on the possibility of various business models and public-private partnerships and technology options regarding charging infrastructure.</p>

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
Component 3 - Awareness and capacity building		
3.1 Knowledge exchange and benchmarking between countries (facilitated by UNEP Global E-mobility support)	This component will promote EV know-how on different aspects at all levels ? bring about increased awareness and systemic capacity to national and municipalities? authorities, private EV operators,	This Component has not really changed in terms of outputs and activities, noting that the stakeholder and beneficiaries will reflect the focus on the type of vehicles described in the other two Components. The Project stresses not only training and capacity strengthening on EV and EV charging but as well on the environmentally sound disposal and recycling of automotive batteries. An output (3.5) has been added that specifically focusses on gender aspects (in line with Gender Action Plan, see Annex H of the UNDP ProDoc), while an
3.2 Monitoring, reporting and verification of demos and GHG emissions.		
3.3 National promotion and awareness creation		
3.4 Technical capacity is built in the EV ecosystem and on sound battery management		

ProDoc / CEO ER	Child project concept (Project Framework Document, PFD)	Rationale for Change in PIF Outputs/Activities in ProDoc
3.5 Programs to address social, gender, safety, and employment issues	<p>training of trainers and technicians working with automobile industries, utilities, financial institutions and service maintenance organizations on EV technology, technical and economical assessments, vehicle test results, and efficient use of transport, examples of international regulations and standards. Furthermore, it will undertake targeted activities to raise awareness and will disseminate necessary information to promote EV in Bangladesh. Finally, key stakeholders will participate in the events and workshops under the Global Electric Mobility Programme</p>	Environmental and Social Management Framework (ESMF) has been formulated (see Annex N of the ProDoc)

4) alignment with GEF focal area and/or impact program strategies;

16. Regarding GEF priorities, the project falls within the GEF-7 objective of "Promote innovation and technology transfer for sustainable energy breakthroughs" of the Climate Change Focal Area

Investments and Associated Programming, in particular its 'Entry Point' # 4, 'Accelerating energy efficiency adoption'.

5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, and co-financing;

17. The proposed Project will complement the baseline situation to address the key challenges arising out of A) policy-regulatory-institutional barriers (absence of a clear policy-institutional framework and institutional coordination issues, lack of appropriate regulation for EVs, charging infrastructure and battery management, lack of incentives related to the high upfront cost of four-wheel EVs; unclear role and potential of renewable energy), B) market and technology barriers (lack of demonstration with tested business models, lack of public charging infrastructure), and C) systemic capacity, knowledge and information gaps; social-economic issues (limited knowledge, and awareness, and technical capacity for maintenance; concerns about employment issues). The table below describes how Project outputs are designed to address these gaps and barriers (see also Section 3 in the UNDP Project Document for details).

Challenge/barrier/gap	Project outputs
<p>Absence of a clear policy with a regulatory framework and guidelines for electric vehicles (EV) an EV charging infrastructure</p> <ul style="list-style-type: none"> o No EV or EV charging roadmap exists or is even contemplated o There is no explicit clarity on the institutional mandates when it comes to the EV integration in the (public) transport system and the promotion of private-sector EVs. A multitude of ministries and agencies at both national and local levels are potentially involved. Absence of an effective coordinating mechanism o Many three-wheelers are 'illegal' (i.e., not registered with BRTA). Until recently, there was no registration of electric vehicles as a separate category, so reliable official statistics have not been compiled yet. This hampers scenario building for EV expansion plans o No specific regulations, and standards (quality, safety), testing and environment management protocols for EVs and charging stations Draft guidelines need to be updated and expanded to include 2/3-wheelers, battery management and charging stations. o Need for approved fiscal incentives in combination with appropriate power tariffs yet to address the issue of the high initial cost of EV o Investment in new transport technologies, such as EVs, and associated infrastructure in Bangladesh is limited due to high acquisition costs and the absence of fiscal and non-fiscal incentives for EV, absence of clear guidelines and the lack of incentives for (environmentally sound) local production of EV and EV components 	<ul style="list-style-type: none"> 1.1 Assessment of feasibility or and requirements for the development of EV market and charging infrastructure 1.2 Streamlined policies, legislation, regulations and road map for EV penetration in public and private transport and EV charging infrastructure are adopted 1.4 EV assemblers and component manufacturers are increasing production of standardized products

<p>Environmental risks</p> <ul style="list-style-type: none"> o Due to their low cost, lead-acid batteries are also commonly deployed for EV tri-wheelers in Bangladesh and this raises specific concerns at different stages of manufacturing, recycling and disposal. There has been no effectively implemented government policy or regulations for the recycling of batteries in Bangladesh. Lithium batteries are the most widely used in EVs (PHEV and BEV), but the major challenges, in comparison with lead batteries, are the lower safety (unless measures are taken) and high purchase cost. In the long run, more full-fledged battery waste recycling facilities are necessary to make EV a sustainable option. 	<p>1.3 Feasible strategy and proposed regulation for environmentally sound end-of-life management and recycling of batteries</p>
<p>Absence of evidenced charging infrastructure and tested business models</p> <ul style="list-style-type: none"> o There is no public charging infrastructure in the country, apart from a few solar-powered charging stations. Without public EV infrastructure available and visible in the streets, four-wheel vehicle users will not revert to electric on any significant scale. o There is no experience with business models for the commercial operation of charging infrastructure. Appropriate business models for investment, ownership and operation of the EV charging infrastructure need to be tried out and evaluated for applicability in Bangladesh. o Lack of linkages to renewable energy-based charging infrastructure and use of fossil fuel-based sources of energy for their charging 	<p>2.1 Feasibility assessed and strategy on e-buses and charging infrastructure options formulated 2.2 Pilot on electric buses and charging implemented (INV) 2.3 Feasibility assessed and strategy on (solar-hybrid) charging infrastructure 2.4 Demonstration of solar hybrid EV charging stations (INV) 2.5 Pilot on EV battery collection for sustainable recycling and battery swapping implemented (INV)</p>
<p>Systemic capacity, knowledge and information gaps</p> <ul style="list-style-type: none"> o Lack of customer awareness and knowledge about battery EV advantages, incentives, proof of concept and lack of charging infrastructure and features are barriers to four-wheeled EV adoption. For the EV sector to advance, there is a need for training to facilitate entrepreneurship in the areas of mechanics and EV maintenance, EV driving skills, battery recycling, battery manufacturing, and the construction and operation of EV charging facilities. o Skills enhancement is needed to maintain the new type of electronic components in EV and maintain charging infrastructure. For the EV sector to advance, there is a need for training to facilitate entrepreneurship in the areas of mechanics and EV maintenance, EV driving skills, battery recycling, battery disposal, and the construction and operation of EV charging facilities. 	<p>3.1 Knowledge exchange and benchmarking between countries (with Global E-mobility support) 3.2 Monitoring, reporting and verification of demos and GHG emissions 3.3 National promotion and awareness creation 3.4 Technical capacity is built in the EV ecosystem and on sound battery management 3.5 Programs to address social, gender, safety, and employment issues</p>

18. The total cost of the project is USD 22,188,991. This is financed through a GEF grant of USD 1,788,991 administered by UNDP and a UNDP cash contribution of USD 100,000 and USD 20,200,000 grant and in-kind co-financing by project partners and USD 100,000 UNDP in-kind support. Investment mobilized as confirmed in MoRTB's co-financing letter (attached in Annex L of the Project Document). The co-financing structure is explained below (see also section 4.2.1 of the ProDoc).

In-kind co-financing:

MoRTB (USD 3,500,000), UNDP (USD 100,000), MoEFCC-DoE (USD 200,000): Office space (for project staff and events) and project management. Support to project management and participation in Steering Committee. Participation of staff of MoRTB and government agencies (such as BRTA, BRTC) in the various project activities of the three Components (workshops, seminars; data and information collection for project studies, etc.)

Grant/investment (cash) co-financing:

- ? UNDP: grant co-financing for activities of **PMC (covering portion of Project Manager salary)**
- ? MoRTB-RTHD:
 - ? For pilot (Output 2.2): purchase of at least 50 electric buses and needed charging infrastructure (Dhaka). USD 13,000,000 consisting of a) USD 12,500,000: 50 electric buses (12 mtrs.; 40-50 px; 250 kW battery cap.) @ USD 250,000/bus, b) USD 230,000: two fast-chargers (proposed 300 kW that can charge up to 10 buses/day) @ USD 115,000 per charger (*note*: GEF INV supports three fast-chargers), and c) plus contingency of USD 270,000,
 - ? Arrangement of co-financing of USD 575,000 for pilots of Output 2.4 (solar/hybrid solar charging outside Dhaka and major towns) for one larger and two smaller charging facilities (USD 60,000; *note*: GEF INV provides USD 100,000) and additional 3 larger and 6 smaller solar/hybrid charging facilities (USD 515,000)
 - ? Co-financing for sustainable 3-wheeler/2-wheeler battery disposal and recycling pilot (Output 2.5) of USD 375,000
 - ? Co-financing for Output 3.2 (USD 220,000): monitoring and measurements of fuel use/savings of the pilot/demos of Output 2.2 (e-buses) and Output 2.4 (solar/hybrid charging for small EV)
 - ? Additional USD 2,780,000 for adapting/upgrading existing bus lane infrastructure for EV bus operation (and/or for additional EV and charging facilities)

6) *global environmental benefits (GEFTF) and*

19. Regarding, global environmental benefits, these are estimated in great detail and presented in Annex F of the UNDP Project Document **and summarized in the table on the previous page:**

20. *Direct emission reduction:*

Associated with the operation of three chargers and about six solar-hybrid chargers (installed in small towns and/or as part of the solar system for irrigation pumps), supported by GEF budget and co-financing, and also, resulting from the use of electric buses and electric two/three-wheeled EVs, in comparison with the baseline internal combustion engine (ICE), powered by CNG or diesel (electric bus) or gasoline or CNG (2/3-wheelers).

21. *Indirect (or consequential) emission reduction:*

regulatory, financial and other barriers, associated with investments that are expected a) after the project's end (post-project) by BRTC (and other transport entities), b) expansion of planned solar(-hybrid) charging facilities, as mentioned in the draft National Solar Energy Roadmap (2021-24), c) emerging market introduction of battery electric vehicles (four-wheel cars for private transport or taxicabs)

22. During the course of the development of this CEO ER, it became clear that there would be a large difference between the direct emission reduction (ER) estimate of the project concept (PFD) at 421.4 ktCO₂, and the amount at CEO endorsement request, 15.7 ktCO₂. The PFD concept's number was an early-stage estimate, using a top-down approach based on assumptions for market development which the PPG stage identified as over-optimistic (note that the full electric 4-wheel

SUMMARY - Financing pilots/demo					
Type	Public trsp e-bus	Solar CS (3-wheelers)	Solar for CS & irrigation	Total	Project concept (PFD)
GEF INV (pilots/demo) in USD	345,000	74,147	22,840	441,987	
- No. of charging stations	3	1	2		
- No of EV	30				
- Contingencies (USD)		1,513	1,500	3,013	
Co-financing (USD)		43,253	15,988	59,241	
Co-financing (USD)	12,730,000	395,453	116,483	13,241,936	
- No of charging stations	2	3	6		
- No. of EV	50				
- Contingencies	270,000	1,294	2,529	273,823	
Direct ER, tCO₂	10,272	4,374	1,011	15,657	421,417
- primary: pilots/demo	(50 buses)	(191 kW solar)			
- indirect ER, tCO ₂	30,817	35,234		201,416	not indicated
	(150 buses)	(1.25 MW)			
- Four wheel BEVs	135,366				
Total indirect (ER), tCO₂	176,455	40,618		217,073	927,628

Note:

✓ The Program Framework Document (PFD) of the Global Program only gives total direct (incl. post-project) emission reduction. Co-financing of at least USD 10.75 million is mentioned as a target but the PFD does not indicate which part is for INV or TA, or which part is in-kind or cash.

Direct emissions (related to INV outputs 2.2, 2.4), GEF/co-fin INV)

✓ Solar CS pilots with 104 kW charging capacity of which 48 kW with GEF INV support (USD 0.420 million) and co-financing of USD 0.06 million). In addition, co-financing is expected for additional solar-hybrid charging capacity of USD 0.52 million). Thus, total capacity of 416 kW (of which 191 kW solar with GEF INV of USD 0.44 million and confirmed co-financing of USD 0.57 million)

- ✓ Investment cost of 50 e-buses (plus chargers) estimated at USD 13,345,000, of which GEF INV covering cost of 3chargers (USD 345,000) and co-financing of USD 12.73 million for 50- e-buses and two chargers

Indirect emission reduction

- ✓ The National Solar Power Plan envisages 25 MW installed for solar charging. It is assumed here that 5% (1.25 MW) will be realized after project's end with similar lifetime GHG reduction per e-bus as direct ER
- 8 ✓ Replication of e-buses to other or newly dedicated EV bus lines (150 buses)) with similar GHG reduction per kW solar as for direct ER estimate
- ✓ Assumed modest introduction of 10,000 four-wheel BEV cars (government fleet, taxicabs, some private), based on estimated lifetime CO₂ reduction of 13.54 tCO₂ per car (see Annex F in Project Document for calculated estimate)

SUMMARY - Financing pilots/demo					
Type	Public trsp e-bus	Solar CS (3-wheelers)	Solar for CS & irrigation	Total	Project concept (PFD)
GEF INV (pilots/demo) in USD	345,000	74,147	22,840	441,987	
- No. of charging stations	3	1	2		
- No of EV	30				
- Contingencies (USD)		1,513	1,500	3,013	
Co-financing (USD)		43,253	15,988	59,241	
Co-financing (USD)	12,730,000	395,453	116,483	13,241,936	
- No of charging stations	2	3	6		
- No. of EV	50				
- Contingencies	270,000	1,294	2,529	273,823	
Direct ER, tCO₂	10,272	4,374	1,011	15,657	421,417
- primary: pilots/demo	(50 buses)	(191 kW solar)			
- indirect ER, tCO ₂	30,817	35,234		201,416	not indicated
	(150 buses)	(1.25 MW)			
- Four wheel BEVs	135,366				
Total indirect (ER), tCO₂	176,455	40,618		217,073	927,628

Note:

✓ The Program Framework Document (PFD) of the Global Program only gives total direct (incl. post-project) emission reduction. Co-financing of at least USD 10.75 million is mentioned as a target but the PFD does not indicate which part is for INV or TA, or which part is in-kind or cash.

Direct emissions (related to INV outputs 2.2, 2.4), GEF/co-fin INV)

✓ Solar CS pilots with 104 kW charging capacity of which 48 kW with GEF INV support (USD 0.420 million) and co-financing of USD 0.06 million). In addition, co-financing is expected for additional solar-hybrid charging capacity of USD 0.52 million). Thus, total capacity of 416 kW (of which 191 kW solar with GEF INV of USD 0.44 million and confirmed co-financing of USD 0.57 million)

- ✓ Investment cost of 50 e-buses (plus chargers) estimated at USD 13,345,000, of which GEF INV covering cost of 3chargers (USD 345,000) and co-financing of USD 12.73 million for 50- e-buses and two chargers

Indirect emission reduction

- ✓ The National Solar Power Plan envisages 25 MW installed for solar charging. It is assumed here that 5% (1.25 MW) will be realized after project's end with similar lifetime GHG reduction per e-bus as direct ER
- 8 ✓ Replication of e-buses to other or newly dedicated EV bus lines (150 buses)) with similar GHG reduction per kW solar as for direct ER estimate
- ✓ Assumed modest introduction of 10,000 four-wheel BEV cars (government fleet, taxicabs, some private), based on estimated lifetime CO₂ reduction of 13.54 tCO₂ per car (see Annex F in Project Document for calculated estimate)

SUMMARY - Financing pilots/demo					
Type	Public trsp e-bus	Solar CS (3-wheelers)	Solar for CS & irrigation	Total	Project concept (PFD)
GEF INV (pilots/demo) in USD	345,000	74,147	22,840	441,987	
- No. of charging stations	3	1	2		
- No of EV	30				
- Contingencies (USD)		1,513	1,500	3,013	
Co-financing (USD)		43,253	15,988	59,241	
Co-financing (USD)	12,730,000	395,453	116,483	13,241,936	
- No of charging stations	2	3	6		
- No. of EV	50				
- Contingencies	270,000	1,294	2,529	273,823	
Direct ER, tCO₂	10,272	4,374	1,011	15,657	421,417
- primary: pilots/demo	(50 buses)	(191 kW solar)			
- indirect ER, tCO ₂	30,817	35,234		201,416	not indicated
	(150 buses)	(1.25 MW)			
- Four wheel BEVs	135,366				
Total indirect (ER), tCO₂	176,455	40,618		217,073	927,628

Note:

✓ The Program Framework Document (PFD) of the Global Program only gives total direct (incl. post-project) emission reduction. Co-financing of at least USD 10.75 million is mentioned as a target but the PFD does not indicate which part is for INV or TA, or which part is in-kind or cash.

Direct emissions (related to INV outputs 2.2, 2.4), GEF/co-fin INV)

✓ Solar CS pilots with 104 kW charging capacity of which 48 kW with GEF INV support (USD 0.420 million) and co-financing of USD 0.06 million). In addition, co-financing is expected for additional solar-hybrid charging capacity of USD 0.52 million). Thus, total capacity of 416 kW (of which 191 kW solar with GEF INV of USD 0.44 million and confirmed co-financing of USD 0.57 million)

- ✓ Investment cost of 50 e-buses (plus chargers) estimated at USD 13,345,000, of which GEF INV covering cost of 3chargers (USD 345,000) and co-financing of USD 12.73 million for 50- e-buses and two chargers

Indirect emission reduction

- ✓ The National Solar Power Plan envisages 25 MW installed for solar charging. It is assumed here that 5% (1.25 MW) will be realized after project's end with similar lifetime GHG reduction per e-bus as direct ER
- 8 ✓ Replication of e-buses to other or newly dedicated EV bus lines (150 buses)) with similar GHG reduction per kW solar as for direct ER estimate
- ✓ Assumed modest introduction of 10,000 four-wheel BEV cars (government fleet, taxicabs, some private), based on estimated lifetime CO₂ reduction of 13.54 tCO₂ per car (see Annex F in Project Document for calculated estimate)

vehicle market is virtually non-existent, while the million electric 3/3-wheelers are to be considered baseline). In line with GEF-STAP methodology, the new, revised direct emission reduction target of 15,657 tCO₂ has been related to the GEF INV and confirmed co-financing. In line with GEF-STAP methodology, the new, revised direct emission reduction target of 15,657 tCO₂ has been related to the GEF INV and confirmed co-financing. This is an achievable and realistic target for Bangladesh.

Notwithstanding the above, the INV co-financing for e-buses of US\$ 13 million is part of a wider program of USD 52.2 million of MoRTB-BRTC that will be expanded over time (e.g. ADB will dedicate some funding in bus transport project to EV buses). Also, expansion of hybrid solar charging stations (outside main cities to cater for 2-3 wheelers mainly) will be helped by the financial mechanism that will be defined (guided by National Solar Plan targets) and set up for post-project operation with BEEVA technical assistance (newly added output 1.5). As the market development for EV personal cars is still uncertain, these could not be confirmed by co-financing letters at this time, but have been taken into account as a basis for estimating indirect emission reductions.

7) innovativeness, sustainability and potential for scaling up. ?

Sustainability

23. The project's policy context is characterized by consistent long-term strategies policies on energy efficiency climate change (Nationally Determined Contribution, 2015; Roadmap for Implementation of Bangladesh NDC, 2018), clean energy (Renewable Energy Policy Roadmap, 2015; Net-Metering Guidelines, 2018), Energy Efficiency and Conservation Master Plan up to 2030) and transportation (Strategic Transport Plan, Dhaka; update 2016), Automotive Industry Development Policy (2021). The project aims at creating conditions for sustainable EV market growth. EV policy formulation, as well as EV market development in Bangladesh, are still a nascent stage. To create more awareness and visibility, the demonstration charging infrastructure is supported, together with the development of updating/formulating policy and plans and a framework with regulations, standards and appropriate incentives for EVs and the EV ecosystem. One key element will be the strengthening of the institutional system by setting up an inter-sectoral/inter-ministerial 'nodal entity' (or working group) for matters related to the EVs and EV infrastructure, and by setting up 'EV units' (or focal points) in line ministries. EV-sensitive transport planning and allocating a sufficient budget will be needed to build the EV ecosystem. All this will take place in the global EV marketplace whose expansion will have an impact on the prices, demand, and general level of acceptance of EVs.

24. The global EV market offers opportunities, that are linked with Bangladesh's industrial development strategies, including the development of an electric vehicle (EV) manufacturing industry (for export and domestic markets). Another key element of the Project's sustainability is its focus on the private sector as an existing driving force in the market of two/three-wheeled EVs and on bus companies regarding the introduction of electric buses. By demonstrating the operation of 50 electric buses with charging stations in Dhaka as well as solar-hybrid charging stations in other parts of the country, Bangladesh will demonstrate the positive environmental and economic benefits of charging infrastructure for electric vehicles. To date, the concept of public charging infrastructure for (four-wheeled) EVs has not had the required visibility nor the public and investor confidence of the economic and environmental viability. The electric bus pilot and solar/hybrid charging demonstration will utilize best international practices to generate economic, environmental and social benefits that will be measured credibly with established MRV protocols (Output 3.2) to generate realistic data and information.

25. By disseminating this information with an intent of scaling up to leverage investment in more electric buses and charging stations for EV, strong interest from local investors should be catalysed. This will encourage local manufacturers of motor vehicles to assemble EVs in Bangladesh to create local employment and private sector companies who would invest in acquiring electric buses and

venture into the four-wheeled passenger EV market. This will strengthen a sustained growth of electric vehicles for both domestic use and possible export in the longer run.

26. The BEEVA Project will explore further opportunities for accelerating this scale-up by linking the Project's efforts with meaningful participation in specific events where UNDP could support engagement with the global development discourse on e-mobility. As a child project to UNEP's Global E-Mobility Programme, BEEVA will provide opportunities for regional cooperation with other countries in the region that have similar initiatives with the introduction of clean fuel buses, including the introduction of electric buses.

27. Lastly, there is the involvement of the Asian Development Bank on the Global Programme for technical assistance to the development of policies and strategies for the development of electric transport in Bangladesh, analysis of the environmental impact of electric vehicles and its economic consequences (based on global practices on taxation, tariffing, and subsidizing as a means of catalysing interest in EVs). Also, ADB is helping Bangladesh develop a sustainable urban transport system in north Greater Dhaka. The project includes the construction of a bus rapid transit (BRT) corridor, and depot and terminal facilities, while the inclusion of electric buses in this project is under consideration.

Innovativeness

28. The updated Dhaka Strategic Transport Plans (2016) calls for an expansion of public transport services with five MRT (mass rail transport) and two BRT (bus rapid transit) systems. This offers an opportunity to integrate charging infrastructure in new BRT and other new bus lines in the Dhaka area, i.e., before the road infrastructure and bus terminal facilities with dedicated electric bus lines are built, rather than making expensive infrastructural accommodations afterwards.

29. Some solar charging stations have been installed (for the thousands of electric three-wheelers and electric motorbikes) and thousands of solar pumps (for irrigation). Solar pumps only provide water for a number of days in the dry season, and one innovative proposal, supported by the BEEVA project, is to combine solar PV for irrigation with EV charging to make better use of idle solar pump capacity. The technical issues and options (on integrated the systems and possible grid connection), as well as possible effective business models in public-private partnerships, will be assessed by the Project.

30. Second, the project will work with the above-mentioned solar-hybrid PV stations to offer battery swap services, i.e., riders can exchange their drained batteries for fully charged ones and the shop cum charging facility. This will make it more attractive to use these charging facilities as there will be no long waiting time for the vehicle's battery to be charged.

[1] See also the Section 3 on strategy and theory of change in the UNDP Project Document

[1] See also Section 2 in the UNDP Project Document

[2] Source: <https://www.worldometers.info/co2-emissions/bangladesh-co2-emissions/>; <https://ourworldindata.org/co2/country/bangladesh>. In 2020, Bangladeshi's annual GHG emissions were 0.27% of global CO₂ emissions (34.81 billion CO₂)

[3] See also Section 3 in the UNDP Project Document

[4] See website, Bangladesh Road Transport Authority (BRTA)

Global Fuel Economy data; in presentation *Enabling ecosystem for electric mobility in Bangladesh* (IDCOL, 2019)

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.



See also Annex A of the UNDP Project Document.

Note that the pilot on electric buses (Output 2.2) will be in Dhaka, while the demonstration of solar/hybrid chargers will be *outside* the main metropolitan areas (Dhaka, Chittagong, Khulna, Sylhet, Rajshahi, Comilla, Mymensingh, Barisal, Rangpur, Narayanganj, and Gazipur).

1c. Child Project?



If this is a child project under a program, describe how the components contribute to the overall program impact.

1. The current project is hosted under the 'Global Programme to Support Countries with the Shift to Electric Mobility', led by UNEP. The Global Programme is based on the following four components:

- ? Component 1: Global thematic working groups and knowledge materials
- ? Component 2: Support and Investment Platforms
- ? Component 3: Country project implementation
- ? Component 4: Tracking progress, monitoring and dissemination

2. The Global Programme has put in place the monitoring framework below to track progress both globally and at the level of the country child projects; 12 indicators have been designed for this purpose: 6 relying on global level information (highlighted in blue) and 6 relying on country level information (highlighted in green in the table on the next page). The global project will report against this framework on an annual basis, using (1) the global level data from the Global Thematic Working Groups and from the Support and Investment Platforms, and (2) country-level data provided by each country project during their annual Project Implementation Review (PIR) process.

3. For this purpose and whenever applicable, the global level indicators highlighted in green are translated into a country-level indicator in the Project Results Framework located in Annex A of the present CEO Endorsement Document. During project implementation, the Implementing Partner will report against the indicators of the country Project Results Framework (Annex A) on an annual basis, during the PIR process, in addition to the usual GEF Core Indicators (mentioned at the top of the table above). Annex A indicates how the BEEVA Project progress indicators are linked with those of the Global Programme.

Global E-mobility Programme Monitoring Framework			
 Global level monitoring		 Country level monitoring	
Objective level indicators			
Indicator A: Direct and Indirect Greenhouse Gas Emissions Mitigated (metric tons of CO2) mitigated			
Indicator B: Direct and Indirect energy savings (MJ)			
Indicator C: Number of direct beneficiaries (disaggregated by Gender)			
Component 1 Global thematic working groups and knowledge materials	Component 2 Support and Investment Platforms	Component 3 Country project implementation (Child Projects)	Component 4 Tracking progress, monitoring and dissemination
Outcome 1 Knowledge products are generated to support policy making and investment decision-making through four global thematic working groups	Outcome 2 Conditions are created for market expansion and investment in electric mobility through support and investment platforms	Outcome 3 Conditions are created at country and city level for the introduction of electric mobility demonstration projects, and wider up take of electric mobility	Outcome 4 Projects and electric mobility markets are tracked, and key developments, best practices and other lessons learned are shared to promote wider uptake of electric mobility.
Indicator 1.1 # of knowledge products developed by the four thematic working groups and used by the Support and Investment platforms in their training and outreach activities	Indicator 2.1 % of countries using services and knowledge products offered by the Support and Investment Platform	Indicator 3.1 % of countries with an improved institutional framework and a strategy to promote the uptake of low-carbon electric mobility	Indicator 4.1 % of countries generating and sharing best practices and other lessons learned on low-carbon electric mobility with the global programme
	Indicator 2.2 # of e-mobility scale-up and / or replication concepts facilitated as a result of the match-making	Indicator 3.2 % of countries with nationally generated evidence of the technical, financial and/or environmental benefits of low-carbon electric mobility	Indicator 4.2 # of e-mobility knowledge products refined based on evidence coming from the country projects
	Indicator 2.3 # of financial institutions / development banks (national/regional) that have been engaged through the Global Programme and are actively supporting e-mobility projects	Indicator 3.3 % of countries that have improved preparedness to accelerate market transformation towards low-carbon electric mobility	Indicator 4.3 # of non-e-mobility programme countries committing to actively promote the uptake of low-carbon e-mobility
	Indicator 2.4 # of US\$ leveraged to scale-up low-carbon electric mobility through the support and investment platforms	Indicator 3.4 % of countries with measures in place to ensure the long-term environmental sustainability of low-carbon electric mobility	

4. At the global level, a steering committee led by the United Nations Environment Programme will coordinate and monitor the implementation and the outputs of the GEF 7 Electric Mobility Programme. On technical gaps, four thematic working groups at the global level will support the rapid

introduction of electric mobility in GEF recipient countries. These working groups will generate universal knowledge products that contain best practices, factsheets, interactive tools and guidance, as well as experiences from countries that have advanced their e-mobility market. The working groups will be integrated by representatives from the global programme regional platforms, GEF-7 countries, IEA, vehicle manufacturers, utilities, researchers and the civil society.

5. The coordination between the global program, the steering committee, the thematic working groups, and the national projects will be facilitated by the regional Support and Investment Platform. The role of the regional platform is to provide customized technical assistance to ensure the success of the country projects. Moreover, knowledge products developed by the working groups will be adapted and disseminated by the regional platform according to the regional and national context, specific needs and languages.

6. The national child projects will generate a learning curve on electric mobility that can be transferred to other countries within and outside of the region through the global programme. As a first contact point, the regional Support and Investment Platform will facilitate the flow of learnt lessons from child projects, such as data and demonstration results, working business models, operational know-how, working financial instruments, and working policies and regulations. At the global level, the scenarios proposed to share country knowledge and experiences on electric mobility are the thematic working groups, while at the regional level the countries will participate in the community of practice, the thematic regional groups, the marketplace, training and workshops.

2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

1. Stakeholder engagement is described in Section 4.2 of the Project Document with a Stakeholder Engagement Plan attached as Annex I to the ProDoc. The table below specifies in detail how stakeholders are planned to be engaged in which project outcome or output throughout the project period.

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Project implementation partners (see Section 7 on project governance arrangements)			

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Ministry of Road Transport and Bridges (MoRTB) - Road Transport and Highways Division (RTHD)	MoRTB -RTHD is responsible for the national transport policy and managing, regulating and planning on public transport and road transport infrastructure. To build a sustainable, safe and quality highway network and an integrated modern mass transport system to improve the socio-economic conditions of the people through development and expansion, repair, rehabilitation and maintenance of roads and highways.	MoRTB-RTHD will be the lead project's Implementing Partner . In this capacity, RTHD will provide overall leadership and strategic guidance to the project; Review the project's progress in monthly meetings held.; Chair the PSC for making consensus-based strategic, policy & management decisions for the project. MoRTB-RTHD will provide a senior official as the National Project Director (NPD) . <hr/> On behalf of the Government and its various entities involved, MoRTB-RTHD will provide co-financing of USD 16.95 million in grant and USD 3.5 million in-kind.	All components
Ministry for the Environment, Forest and Climate Change (MoEFCC) - Department of Environment (DoE)	MoEFCC is responsible for regulation, compliance, monitoring and enforcement in environment management and air quality control. Regarding energy and transport, MoEFCC	MoEFCC's is the GEF OFP & therefore will be involved in general oversight in the PSC. In addition, the DoE of MoEFCC will provide a Deputy Project Director (DPD) who will provide leadership in project coordination of Component 1 and provide technical guidance and policy support in climate change mitigation and environmental safety and the environmentally sound handling and safe disposal of lithium batteries (<i>Outputs 1.3 and 2.5</i>). In addition, DoE will also be involved providing monitoring and sectoral GHG inventories & reporting (<i>Output 3.2</i>), and in the coordination of dissemination & knowledge management regarding environmental awareness creation of Component 3 (<i>Outputs 3.3 and 3.4</i>)	All components

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
	<p>mandate covers the preparation of national policy for pollution control and environmental impact management of the transport Sector and regulation for the environmentally sound managing end-of-life batteries and sub-components. They are also responsible for compliance with the UNFCCC for assessment of the greenhouse gas inventory and preparation of NDC for promoting low carbon development and green growth.</p>	<p>MoEFCC-DoE provides in-kind co-financing of USD 200,000</p>	<p></p>
<p>Bangladesh Road Transport Authority (BRTA)</p>	<p>RRTA is a regulatory body to control manage and ensure discipline in the road transport sector and road safety. BRTA also provides vehicle registration, tax token, road permit and license to any vehicle.</p>	<p>BRTA will provide a second Deputy Project Director (DPD) who will provide leadership in project coordination of the Components 2 and 3, including the pilot/demo activities with EV buses and EV charging infrastructure and the knowledge exchange and promotional activities linked with the Global e-Mobility programme. With MoRTB-RTHD, BRTA will play a crucial role in identifying and proposing EV adoption target (in coordination with the MoI and MoPEMR-Power Division) in and elaboration of EV roadmap development of Component 1 (<i>Outputs 1.1 and 1.2, 1.4</i>)</p>	<p>All components</p>

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
<i>Other main stakeholder entities</i>			
Bangladesh Road Transport Corporation (BRTC)	BRTC operates three international bus services, inter-district bus services as well as intra-city bus services in many major cities of the country.	BRTC will pilot 50 e-buses with charging facilities (<i>Output 2.2</i>) and follow-up (<i>Output 3.2</i>). BRTC will work in Component 2 (<i>Outputs 2.1 and 2.2</i>) as well as skills development regarding e-buses (<i>Output 3.4</i>)	Component 2 and 3 (see outputs listed)
Sustainable and Renewable Energy Authority (SREDA)	SREDA was established in 2012 as the implementing body (under MPEMR) to promote renewable energy and energy efficiency and conservation, for the nationwide monitoring of energy consumption	SREDA has been involved in the promotion of EV and has produced the EV Charging Station Guidelines. SREDA coordinates EE policies and implementation among the line ministries and with non-governmental organizations (NGOs), including EV and EV infrastructure and battery recycling (<i>Outputs 1.2 and 1.3, Output 2.5</i>)	Component 1 (charging regulations) Component 2 (output 2.5)

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
<p>Infrastructure Development Company Limited (IDCOL)</p>	<p>IDCOL is a private limited company licensed by Bangladesh Bank as a non-bank financial institution. Since its inception, IDCOL is playing a major role in bridging the financing gap for developing medium and large-scale infrastructure and renewable energy projects in Bangladesh. In less than a decade, the company now stands as the market leader in private sector energy and infrastructure financing in Bangladesh. IDCOL will play an important part in consultations for charging infrastructure development and financing investments.</p>	<p>IDCOL has made a credit line available for financing for the low-carbon investments that can cover investments in EV charging infrastructure as indicated in its co-financing letter (Annex J) and will work with the Project in particular in Component 2 (<i>Outputs 2.3, 2.5 and 2.4</i>) and Component 1 (output 1.5)</p>	<p>Component and component 2 (see outputs indicated)</p>

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Ministry of Industry (MoI)	MoI is responsible for developing planning for the industrial sector, including automotive manufacturing of vehicles and vehicle components, including batteries. MoI plays a crucial role in identifying and proposing EV adoption policy targets (with MoRTB-RTHD).	Regarding EV, MoRTB-RTHD plays a crucial role in identifying and proposing EV adoption target (with MoRTB and MoPEMR) and elaboration of EV roadmap development (EVs and EV charging infrastructure) in <i>Outputs 1.1 and 1.2</i> and the knowledge exchange and promotional activities (Component 3, <i>Output 3.1 and 3.3</i>). MoI plays a role in the promotion of domestic manufacturing (for domestic sales or export) of EV and EV components (<i>Output 1.4</i>) as well as battery manufacturing (<i>Output 1.3</i>)	See outputs indicated
Ministry of Power, Energy and Mineral Resources (MoPEMR)	MoPEMR is mainly responsible for all policies and matters relating to electricity generation, transmission, and distribution from conventional and non-conventional energy sources. Its Power Division has the overall authority for the electricity sector)	MoPEMR is involved in energy planning and supply, including energy use in the transport sector (and electricity for EV charging). The Power Cell's scope of responsibility includes renewable energy; it supports the implementation of energy projects by NGOs and private actors, so this includes charging stations powered by renewable energy. (<i>Outputs 1.1 and 1.2</i>)	See outputs indicated

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Bangladesh Rural Electrification Board (REB/BREB) Bangladesh Power Development Board (BPDB) Distribution utilities	(B)REB implements electrification of rural areas in Bangladesh and builds electrical lines and substations. Its counterpart BPDB manages electric distribution in urban areas and is responsible for planning and developing the nation's power infrastructure and for operating much of its power generation facilities.	Utilities to assess the availability of spare capacity in distribution transformers in areas having potential for charging station implementation like bus depots and terminus in major cities. Distribution utilities also assess the power availability and peak demand and also the seasonal variability in these parameters to figure out the EV demand the load network can sustain with the given supply including power import (<i>Output 1.1</i>) and advice on connection and requirements for connection of charging stations to the grid in the demo activities (<i>Outputs 2.3 and 2.4</i>)	See outputs indicated
Bangladesh Energy Regulatory Commission (BERC)	The commission was created in 2004 and is responsible for the setting up of gas and electricity prices in Bangladesh. Its approval is needed for any changes in the price of electricity.	BERC plays a role regarding tariff setting for charging stations (<i>Output 1.2</i>). These can be diversified, e.g., time-of-day tariff structure for promoting charging at off-peak hours (<i>Output 1.2</i>)	See outputs indicated

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Dhaka Transport Coordination Authority (DTCA)	DTCA is also responsible for public transport and mass transport projects in Dhaka. Changes to transport infrastructure will need approval from the Dhaka Transport Coordination Authority. The authority has jurisdiction in Dhaka District, Gazipur District, Manikganj District, Munshiganj District, Narayanganj District and the cities corporations within them.	DTCA plays an important role in providing city targets (with DTCA) for EV penetration in public transportation and formulation of local policies and regulations developed to stimulate EV infrastructure and EV use (Outputs 1.1s, 2.1)	See outputs indicated
Ministry of Finance (MoF) ? National Board of Revenue (NBR)	NBR is the government body responsible for tax administration, policies and legislation.	MoF plays a role in the design and approval of incentive structures, tax incentives, import duty rebates, safety regulations, and preferential parking, time-of-day tariff structure for promoting charging at off-peak hours, free road tax/registration, etc.(Outputs 1.1, 1.4 and 1.2)	See outputs indicated

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Bangladesh Standards and Testing Institution (BSTI)	The primary activities of BSTI are: standardization of services and products (S); promotion of metrology services (M); promotion of quality assurance activities; rendering testing facilities for services and products; preparation, promotion and adoption of national standards	BSTI role in the project is regarding standards regarding EV, batteries in EV and EV chargers and testing facilities for EV (<i>Output 1.2 and 1.3</i>).	See outputs indicated
Bangladesh Bureau of Statistics (BSS)	BSS is the centralized official bureau in Bangladesh for collecting statistics on demographics, the economy, and other facts	Organizations of transport statistics distinguishing between EV (and types of EV) and non-electric vehicles (<i>Outputs 1.1, 1.3, 3.2</i>)	
Universities and research institutes	Various universities are involved in socio-economic and technical research on EVs.	Universities, institutes, consultancy firms can research customer patterns of current and future EV use and identify probable charging patterns as well as the analysis of the need for types of EV charging infrastructure and (future) penetration of EV in road transport (BRTA) in urban and rural areas (<i>Outputs 1.1 and 3.2</i>). One or more universities/institutes can be chosen to organize training-of-trainers (ToT) courses on EV, EV repair and maintenance and EV infrastructure (<i>Output 3.4</i>) and gender-social assessments (<i>Output 3.5</i>)	See outputs indicated

Stakeholder	Mandate as per GoB's rules of business	Roles in the implementation of EV project	Relation to project outcomes
Private companies and associations	About 5 or 6 companies use sustainable manufacturing technologies, while 25 use recycling processes. They play an important role in battery recycling as they have deals with the second battery shop dealers. Battery-manufacturing companies are organized in the Accumulator Battery Manufacturers and Exporters Association of Bangladesh. Another important organization is the Bangladesh Reconditioned Vehicles Importers and Dealers Association (BARVIDA). Bangladesh Auto Industries Limited (BAIL), Nitol Motors, Walton Automobile, etc. are planning to set up of EV assembling and manufacturing plant in Bangladesh. There are about 25-30 national and local rickshaw organisations, such as Rickshaw and Van Owners? Association, Bangladesh Rickshaw and Van Owners? Federation; Rickshaw and Van Owners Workers League. Private bus owners are e.g., organized in Bangladesh Road Transport Owners' Association.	RAL is the largest battery manufacturer in Bangladesh and RAL uses sustainable manufacturing technologies and support sustainable recycling process with deals with second-hand battery shops to purchase old batteries. RALs production units will be able to produce about 350,000 units of BEEVA in an environmentally sustainable way.	See outputs indicated

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

1. The Project will also emphasize strong communications with a broader range of stakeholders. Key elements of the project's communication strategy are outlined in the table below:

Key element	Relevant group	Means and approximate GEF budget
1. Project governance meetings; PSC meetings; Working Group meetings	All stakeholders that are members of the PSC or its Working Groups or are invited to attend	Meetings
2. Seminars/workshops and training events, including the Inception workshop, and final project workshop	National and sub-national government officials Private sector; NGOs and CSOs	Workshop, meeting, seminar, training; On-the-job training USD 104,500

3. Project documents, thematic reports and publications; Technical and other reports	Government departments and decision-makers at the national and subnational level; Development partners Research institutes and academia; individual experts; NGOs	Direct dissemination (e.g., email or hard copy/ USB-drive); Access via a website to reports and documents and info systems USD 22,500
4. Project knowledge capturing and info dissemination	Government officials Financial and private sector Development partners; NGOs and CSOs	Online access; Printed materials, Broadcasted and online media; Promotional campaign USD 65,000

Note:

Budget figures are derived from detailed estimates per budget line in Annex E.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Introduction

1. Efficient transport infrastructure is by far an important conduit to spurring the economic development of a city. Transport networks are considered important elements of a country's infrastructure and key to poverty reduction and promoting equality. Mobility is experienced differently by men and women due to gendered roles. Further economic, social and livelihood status greatly influence the mobility of men and women. Daily mobility (transport provisions) means physical access to different facilities which is closely related to the issue of women empowerment and income. Lower-income female workers are compelled to walk to their workplace but middle- and high-income female workers can spend more on a work trip. Middle-income female workers mainly use buses for work trips, whereas higher-income female workers use cars and three-wheelers (auto-rickshaws or CNG), which are more expensive than buses. There are also significant differences in travel characteristics between male and female workers within each income group as well as significant differences between urban and rural areas.

2. Literature indicates that mobility patterns of women are more complex, have inferior access to transportation, and carry a higher travel burden than men. Women not only contribute to the formal economy but provide fundamental services which are generally unrecognized. Poverty and not having education push women to work in informal sectors and earn lower wages. Women, sometimes, have to search for jobs as paid labour in their neighbourhoods while looking after children. A bad situation in transport will increase the risk to the health and safety of women and children. Given the opportunity for better health, education, employment, etc., women contribute to the well-being of their communities and the nation at large.

3. The problems women face in making trips are increased even further in Bangladesh, where very few women use bicycles because women's clothing is unsuitable for this form of transport, and buses have long been inaccessible to women because (they are unable to board a bus out of fear of being touched by other passengers). The failure to take into consideration women's safety sometimes encourages them to use a car (if they can afford it) or walk (if they cannot) rather than public transport. There are already several solutions for this such as Door-to Bus-Station Design approaches, mobile-phone based security apps, and surveillance systems in bus stations and buses.

4. Battery-operated three-wheelers (easy bikes, auto-rickshaws) are playing a significant role as a means of transport for short distances particularly for women as well as it is an income-generating source for unemployed people. These vehicles charge a reasonable fare per ride. The easy bikes have

also received wide acceptability from women because of their ability to cope with the rough rural roads and noise and smoke-free operation. With many girls opting for easy-bikes to commute to remote colleges, this is further catalysing women education and employment opportunities. Mobility is a strong indicator of empowerment as it facilitates information. An informed citizen is an empowered citizen.

Gender-relevant plans and policies

5. The *Seventh Five-Year Plan (2016-2020)* of Bangladesh emphasizes the enabling of equal opportunities and rights for men and women and considers recognition of women as equal contributors in economic, social, and political development. It is observed that the social and demographic determinants of a woman's decision-making authority within the home and mobility outside of the home is firmly patriarchal in urban and rural Bangladesh.

6. The *National Women Development Policy (2011)* aims to establish equal rights for men and women but also included specific goals such as assistance for female entrepreneurs[1]. The Policy sets 20 goals to empower women in all aspects of life: socially, legally, economically and politically. To oversee the implementation of the development policy, the government formed a 50-member National Women and Child Development Council.

Gender mainstreaming strategy

7. Gender mainstreaming is an analytical tool, it is a means to achieve results, not a goal in itself. It involves considering women's, girls', boys' and men's needs and situations in the design, implementation, monitoring and evaluation. Important elements are described below.

? To evaluate the issue of gender in relation to transport and mobility issues, it must first be possible to measure it by making statistics on the interactions between gender and transport would be useful to planners[2]⁵ and taking account of the distinctive characteristics of women's mobility (women's and girls' mobility vary widely by geographic, religious, legal, and cultural context);

? It is essential to involve women consultations, project planning and the decision-making process. Women are not only travellers but also, entrepreneurs, influencers, decision-makers. From the very identification stage of a project cycle, their participation is to be given due importance. This implies

that women sit in leadership positions in EV-related institutions, and sit on advisory committees and forums.

? The design of transport facilities (including infrastructure location) and services is very important in the view of constraints women may face (e.g., sufficient lighting at public transport stops; accommodation for women with children; other safety aspects) and different preferences for modes and types of transport (designed to both full-time and part-time job needs as well as other needs, such as access to markets and schools)

? The transport sector offers many job opportunities (in the construction, operation and maintenance of EV infrastructure; and as EV owners and/or drivers) to which women can have better access, e.g., by including include specific clauses on a required percentage of women employees, by providing training opportunities (as operator, mechanic and driver), and by offering better labour conditions (such as provisions for training, equal wage for work of equal value, promotion of women's safety, protection from sexual harassment, better work organisation (e.g. childcare facilities).

Conclusion

8. BEEVA presents unique opportunities to strengthen women's participation in the energy-efficient electricity sector along the entire value chain, from pilot, installation, maintenance, technology conversion, and business models. However deeper gendered assessments need to be conducted in order to illustrate how women and men interact with the local economy differently. Energy and transport sectors are primarily male-dominated, in Bangladesh and globally, however, women are an untapped resource, as key beneficiaries of lighting technologies, and as informants on how to raise awareness most effectively about new lighting technologies. Finally, addressing gender gaps at leadership, policy and industrial levels in the electricity sector is an opportunity to advance gender equality and the economy of Bangladesh at large.

H.1 Gender action plan (GAP)

9. The project is also aiming to reduce the gap between men and women. As much as possible, outputs in the various components are gender-sensitive, facilitating the access of women to the jobs associated with elements of EV (as drivers) and other elements of the EV ecosystem. The project will endeavour to encourage key players in transport services to incorporate women either as operators,

entrepreneurs, etc. The project includes actions to facilitate access to EV-related jobs through training, and a revision of recruitment strategies, taking advantage of the appeal of EV technologies for potential workers (so that they are skilled in maintenance and repair of EVs). The project also takes benefit of the new technology to accelerate the integration of women.

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

Gender aims	Action	Additional indicators for GAP
<p>Overall project objective:</p> <p>To create enabling conditions towards the transformation of the transport sector of Bangladesh to low carbon and sustainable transportation system by adopting electric vehicles (EVs) that facilitate reducing the GHG emissions, enhancing green growth, and minimizing the adverse impact on public health; and support key stakeholders in the development of viable e- mobility business model</p> <p><i>Gender-sensitive indicators in the logframe:</i></p> <p>3) Number of direct project beneficiaries disaggregated by gender (individual people) [GEF core indicator]</p>		
Active participation of women and men in capacity building training throughout the project	Require and encourage active participation of women and men in capacity building training throughout the project	? Cumulative number of women and men participating in capacity building training throughout the project ? Ratio of women and men participating in capacity building training throughout the project
<p>Outcome 1</p> <p>Enhanced readiness for the development and implementation of electric vehicle charging stations (ECS) for 2-3 wheelers and for 4-wheelers</p> <p><i>Gender-sensitive indicators in the logframe:</i></p> <p>4) System for gathering gender-sensitive data on EV use, purchase and manufacturing</p> <p>5) Status of institutional setup regarding EV at national level</p>		

Gender aims	Action	Additional indicators for GAP
Active participation of women and men in the regular market surveys	In the design of periodic market surveys on battery manufacturer and recycler and EV and charging stations, specifically address women's needs, preferences and habits in acquirement, consumption, and disposal of battery products. Increased mobility for women and girls in (EV) transport system	? Ratio of women and men participating in the periodic market surveys
Enhanced gender-balanced employment in the energy sector	Encourage companies in the EV ecosystem (investor for charging station and battery manufacturers) to increase the number of female interns and to contract professional female workers as consultant, financial adviser, technicians, engineer, and customer service, as appropriate	? Ratio of women and men interns in several BEV related companies ? Ratio of women and men employed through jobs created from the project (40/60)
Women and men employees have an active role to develop policy and enforce EV ecosystems	Require and encourage active participation of women and men in, workshops and focus group dialogues. Encourage women in leadership positions in EV-related companies and institutions	? Ratio of women and men participating in stakeholder consultation meetings on policy and regulation development

Gender aims	Action	Additional indicators for GAP
<p>Outcome 2a:</p> <p>Demonstrated market development of electric buses and charging infrastructure</p> <p>Outcome 2b:</p> <p>Demonstrated market development of (low-carbon) charging infrastructure for 2-3 wheelers</p> <p><i>Gender-sensitive indicators in logframe:</i></p> <p>10) Successfully established EV charging facilities with (gender-relevant) business plan with a focus on serving two/three-wheelers</p>		
Enhanced gender-balanced employment in the energy sector	Contracting women in consultancy, financial adviser, engineer, technicians, and customer services, as appropriate; Require and encourage contractors to employ women, as appropriate	? Ratio of women and men employed through jobs created from the project
Equal participation of women and men in stakeholder consultation meetings on the installation of charging stations in pilot areas	Require and encourage active participation of women and men in stakeholder consultation meetings for the public on the installation of charging station in pilot areas; Ensure that stakeholder consultation meetings are held at times and locations convenient for women	? Ratio of women and men participating in stakeholder consultation meetings in pilot areas
Women and men in pilot areas are benefiting from EV technologies equally	Collect information on the number of beneficiaries and their level of satisfaction through periodic market surveys, monitoring visits etc.	? Cumulative number of women and men benefiting from EV and its infrastructures as influenced by the project ? Ratio of women and men benefiting from EV and its infrastructures influenced by the project ? Women's and men's level of satisfaction with EV and its infrastructures provided by the project (reliability, affordability, convenience, efficiency)

Gender aims	Action	Additional indicators for GAP
Active participation of women and men in the regular market surveys	Ensure that local market surveys conducted amongst the beneficiaries of the EV (e-buses) and 2-3 wheelers (passengers; charging) are also targeting women.	? Ratio of women and men participating in the periodic market surveys
<p>Outcome 3: Knowledge products and capacity building for scaling up and environmental-friendly battery use</p> <p><i>Gender-sensitive indicators in the logframe:</i></p> <p>13) Number of people (disaggregated by gender) sensitized by the awareness campaigns through different media and implementation of project activities;</p> <p>15) Capacity enhancement of local technicians on EV repairing service, accessories business, environment-friendly battery reuse or recycling</p>		
Enhanced gender-balanced employment in the energy sector	<p>Require and encourage to increase the percentage of women staff in charging stations, EV operation and in training institutions;</p> <p>Require relevant government institutions to increase the number of women interns involved in assignments related to energy efficiency</p> <p>Contracting women in consultancy, research and study services, as appropriate</p>	<p>? Ratio of women and men certified for in charging station operation and/or maintenance and as e-bus driver</p> <p>? Ratio of women and men in training institutions engaged in assignments related to energy efficiency</p> <p>? Ratio of women and men employed through jobs created from the project</p>

[1] Main objectives are to establish equal rights of men and women in areas of state and public life in the light of the constitution of Bangladesh; to ensure the socio-economic, political, administrative and legal empowerment; to ensure full and equal participation of women in the mainstream socio-economic development; to eliminate discrimination to women and female children. To establish gender equality in politics, administration, other areas of activity, socio-economic activity, education, culture, sports and in all areas of family life; to extend overall assistance to ensure rights of the disabled women and women belonging to the smaller ethnic groups; to provide necessary support services for development of women; to provide overall assistance in ensuring the growth of women entrepreneurs.

[2] Including: 1) access to different modes of transport, 2) the cost of transport, 3) trip characteristics (modes, frequency, length of trips, reasons for trips), and 4) transport quality;

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making

Generating socio-economic benefits or services or women Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on private sector engagement in the project, if any

1. The Project aims at developing partnerships with private-sector entities in the installation of solar/hybrid charging stations for two-three wheeled vehicles supported with loans from financial entities (such as IDCOL). The Project will stimulate a close interaction between policy and lawmakers and private sector entities on issues such as EV user/owners incentives, charging infrastructure, technology transfer, costs of EV and sustainable management and recycling of car batteries.

2. **In the longer run, the private sector as an existing driving force in the market of EVs. Several companies have plans for manufacturing EV vehicles. For example, Bangladesh Auto Industries Ltd (BAIL), a local automobile company working with Toyota, is keen to produce electric vehicles in the country, recently announcing its USD 200 million investment plan for an EV plant (that will manufacture almost 60% of the component of the vehicles, including lithium battery, motor, controller, software platform, chassis, and body) . Another company, Nitol Motors has plans to produce 25-kWh**

electric cars and has plans to invest USD 40 million. It should be noted that so far, these are all plans on paper only, and have been delayed due to the COVID pandemic. The battery industry is one of Bangladesh's largest manufacturing sectors which is rapidly expanding for the domestic market and for export. About 30-40 companies in Bangladesh are manufacturing (lead-acid) batteries. The Project will stimulate a close interaction between policy and lawmakers and private sector entities on issues such as EV user/owners' incentives, charging infrastructure, technology transfer, costs of EV and sustainable management and recycling of car batteries. By disseminating this information with an intent to scale up to leverage investment in more electric buses and charging stations for EV, strong interest from local investors should be catalysed. This will include local manufacturers of motor vehicles to assemble EVs in Bangladesh to create local employment and private sector companies who would invest in acquiring electric buses and/or four-wheeled passenger EVs. This will strengthen the sustained growth of electric vehicles for both domestic use and possible export in the longer run.

Regarding regulation, standards and incentives, the Project will closely consult with current EV and EV component dealers and prospective four-wheeled EVs assemblers/manufacturers as well as battery recycling and manufacturing companies.

3. Last, but not least, the BEEVA Project will engage Bangladeshi's major battery manufacturers and recyclers (such as Rahimafrooz) regarding the environmentally sustainable collection, recycling and re-use of used (lead-acid) automotive batteries. The battery industry is one of Bangladesh's largest manufacturing sectors which is rapidly expanding for the domestic market and for export. Rahimafrooz (RAL) is the largest battery manufacturer in Bangladesh. RAL uses sustainable manufacturing technologies and supports sustainable recycling processes with deals with second-hand battery shops to purchase old batteries. RAL's production units will be able to produce about 350,000 units of BEEVA in an environmentally sustainable way.

4. Once more clarity has been achieved on the market characteristics through above activities, while functioning regulatory framework (legalizing EV 3-wheelers; EV registration process is to be streamlined along with supporting legislations on taxes and standardizations. EV and battery minimum technical and environmental standards, financial incentives) is being put in place, the need for financial tools will be assessed. With relevant financial institutions (IDCOL, Bangladesh Bank) one or more of the following mechanisms will be set up for the benefit of private sector and EV owners: a) low-cost financing with flexible terms as well as capacity building support for the MFIs to offer loan products aimed at financing (2/3 wheel) EV purchase; b) encourage banks to offer EV loans similar to conventional car loans. c) low-cost financing products for battery recyclers to establish environmentally sound business as well as for EV manufacturers/assemblers, d) loans for private sector for setting up charging station network in major cities.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

1. More details on risks are given in Annex D (Risk log register) and Annex N (Social and environmental safeguards planning) of the UNDP Project Document.

Note on COVID-19:

Risk analysis and planned management countermeasures have considered, among other risks, response to the COVID 19 crisis. The COVID 19 pandemic can impact the project implementation. The COVID-19 pandemic limits social interaction and restricts community activities. This situation may hinder proposed project activities, mainly involving public participation in EV charging, battery recycling and electric bus pilots, exhibitions, and other promotional events. The economic impact of COVID-19 may shift investment priorities of the individual, government, and companies towards preventing uncertainties. Thus, having a relatively higher cost of ownership, purchasing EVs may not be prioritized by those potential markets. In addressing the unwanted impact of COVID-19, the proposed project will need to build an innovative promotional strategy that complies with health protocols. COVID-19 has been a major disruptive event in the Bangladesh public transport sector ? similar to other countries ? wherein the demand for public transport has reduced significantly since the onset of the pandemic, due to fear of infection on public transport. On the other hand, this could impact communities? perceptions of public transport and create a shift towards the use of individual (electric) two- and three-wheelers. The risk of the continued impact of the COVID 19 pandemic on project implementation progress is reflected in the Risk table.

Description	Level	Mitigation Measures
Private sector stakeholders, the private sector remain reluctant to invest, while (new) users are discouraged due high EV cost and lack of incentives	Moderate	Addressing barriers to EV and EV charging will be mitigated through targeted public awareness and advocacy activities, dissemination of information and consultations and capacity building, to be implemented under Component 3. In addition, the demonstrations to be undertaken under Component 2 will showcase the technology in a visible manner to present the opportunities and benefits of the proposed technologies, supported by incentive and financing schemes. The Project will also advise utilities to revise tariffs based on the result of the pilot/demonstration projects, while the enhanced policy-regulatory-planning framework will, once in place, encourage EV-related investment.
Loss of employment in service of conventional vehicles creates resentment	Low	There are already a million or so electric rickshaws so that they have basic skills in maintenance and repair of e-motor scooters, e-bicycles, and e-rickshaws. The Project includes actions to facilitate access to EV-related jobs through training to bring skills to do technical work and maintenance so that EV and infrastructure meet the minimum standards developed with the support of Output 1.2. The Project also takes benefit of the new technology to accelerate the integration of women (Output 3.5) in the transport sector.
Wavering interest and reduced participation by national and local government institutions; poor coordination	Moderate	Relevant government institutions have shown a growing interest in and commitment to the promotion of EVs in Bangladesh. The risk of poor coordination is present and is being addressed in the Project by proposing to set up a ?nodal entity or working group? and ?EV cells? in line ministries and government agencies (Output 1.2). In addition, the project will prepare a strategy for the electrification of the government fleet (1.2.6)

Description	Level	Mitigation Measures
The improper disposal of EV batteries could harm community health, through exposure to toxic and other chemicals	Substantial	In its Output 1.3, the Project includes the development of policy guidelines/regulations for the collection, recycling of the batteries and the environmentally sound recovery of (toxic) materials to ensure that health hazards from EV batteries are prevented with requisite safety protocols. Furthermore, any relevant training needs will be provided as part of Outputs 1.3 and 3.4 to ensure that any community health risks and safety issues stemming from batteries are minimized.
Infrastructure developed is vulnerable to climate change risks.	Moderate	While the infrastructure to be developed under the proposed project could potentially be vulnerable to climatic disruptions (e.g., charging stations in flood-prone areas, high storm surge and wind, cyclone, etc.), sufficient due diligence will be undertaken as to the location of such infrastructure to mitigate this risk [1]. Any required environmental impact assessments, climate proofing, etc., in line with national (building) regulations, will also be conducted in the implementation phase before installation takes place and carried out as per national laws and regulatory requirements <i>The project has developed a detailed environmental and safeguards management framework (ESMF) to better understand and mitigate this risk</i>
Lack of reliable and safe operation of EVCS and health and safety risks associated with electric vehicle repair. Potential occupational health and safety risks associated with electric vehicle repair and decommissioning of battery banks and/or vehicles.	Medium	In the first year of the Project, a capacity assessment of the existing mechanical and electrical technicians will be undertaken in order to incorporate a component for capacity building of the technicians (repair of e-buses, vehicles and of 3-wheelers and 2-wheelers in the proposed project; Output 3.4). The Project will support the Government in formulating safety regulations for the operation of the charging station. During the project, an assessment of existing standards, laws, and regulations will be undertaken to determine the gaps that the project will fill in terms of delivering draft regulations and standards (Output 1.2). In its Output 1.3, the Project includes the development of policy guidelines/regulations for the collection, recycling of the batteries and the environmentally sound recovery of (toxic) materials to ensure that health hazards from EV batteries are prevented with requisite safety protocols. Furthermore, any relevant training needs will be provided as part of Outputs 1.3 and 3.4 to ensure that any community health risks and safety issues stemming from batteries are minimized.
Expansion of charging stations for EVs will consume a lot of electricity from the grid and the business as usual default will be regular/home charging and not fast-charging stations	Low	Over the past years, Bangladesh has developed a large overcapacity in power generation. The issue lies more in the fact that at peak hours thousands of cars are also loaded which can cause temporary power supply issues. In any case, the Project promotes hybrid solar-grid solutions (with 25-80% solar or other renewable energy) as well as promoting EV charging outside peak hours. The project will pilot the demonstration of fast-charging stations to help make them the standard.

Description	Level	Mitigation Measures
Vulnerable groups may not benefit from project activities; Limited participation of women	Substantial	Gender analysis has been undertaken as well as a Gender Action Plan prepared around the concept of involving both women and men in the various activities. A comprehensive SESP was developed (Annex J)
Applicable international, national and local norms to prevent the spread of the COVID-19 pandemics, including but not limited to the respect of quarantine periods and social distancing, lead to a delay in project activity implementation	Moderate	By the time the Project activities start with the Inception, the COVID pandemic may have well passed its peak both in Bangladesh and worldwide with the largest part of the population vaccinated. Even then, new variants may come up leading to more waves of COVID-19 infections. In such cases, a contingency plan will be made by bringing some activities forward as possible, and with online meetings. The COVID-19 situation will be taken into account in the Project Inception Report and closely monitored. This assessment will both evaluate the possible negative effects of COVID-19 as well as any 'green' opportunities arising. Possible longer-term COVID-19 related risks concerning transport preferences of the public, changes in the priorities of the government (due to shortage of capital financing) and any other limitations cannot be foreseen as of today.
Co-financing fails to materialize. Project partners and co-financiers divert priority and co-funding away from EV, leading to delays in pilot/demo procurement and implementation. Similarly, support for the financial mechanism (by FIs) is not forthcoming	Medium	The Project will support proponents with proposal formulation and feasibility analysis. The realization of co-financing can be facilitated by a coordinated discussion with BRTA and possible development partners and financiers. The project will develop a plan B if co-financing fails to materialize to replace the planned co-financing with alternative co-financing sources. Regarding support for financial mechanisms by MFIs or bank, the situation will be assessed as part of Output 1.5. Development banks, such as IDCOL and private banks have expressed interest[2], provided that a basic functioning legal-regulatory framework is in place

[1] Some parts of the Dhaka city are flood prone and all types of vehicles including EV may partially submerged into flood water during heavy rainfall. The Li-ion battery and body of the car may soak into flood water. EV safety systems and battery packs are designed to be safe in water, even if fully submerged. However, EVs that have been submerged in water, particularly saline water (near coastal areas), may have a higher potential risk of experiencing a battery short circuit. This may be remedied by appropriate insurance packages (will be looked into as part of Output 1.5 (text added as footnote in 'risk table' in CER and ProDoc

[2] See, for example, the UK Pact presentation *Development of an EV Financing Tool and Business Model to Enable the Scaling up of EV Uptake in Bangladesh* by Ricardo-IDCOL and partners (Feb 2022)

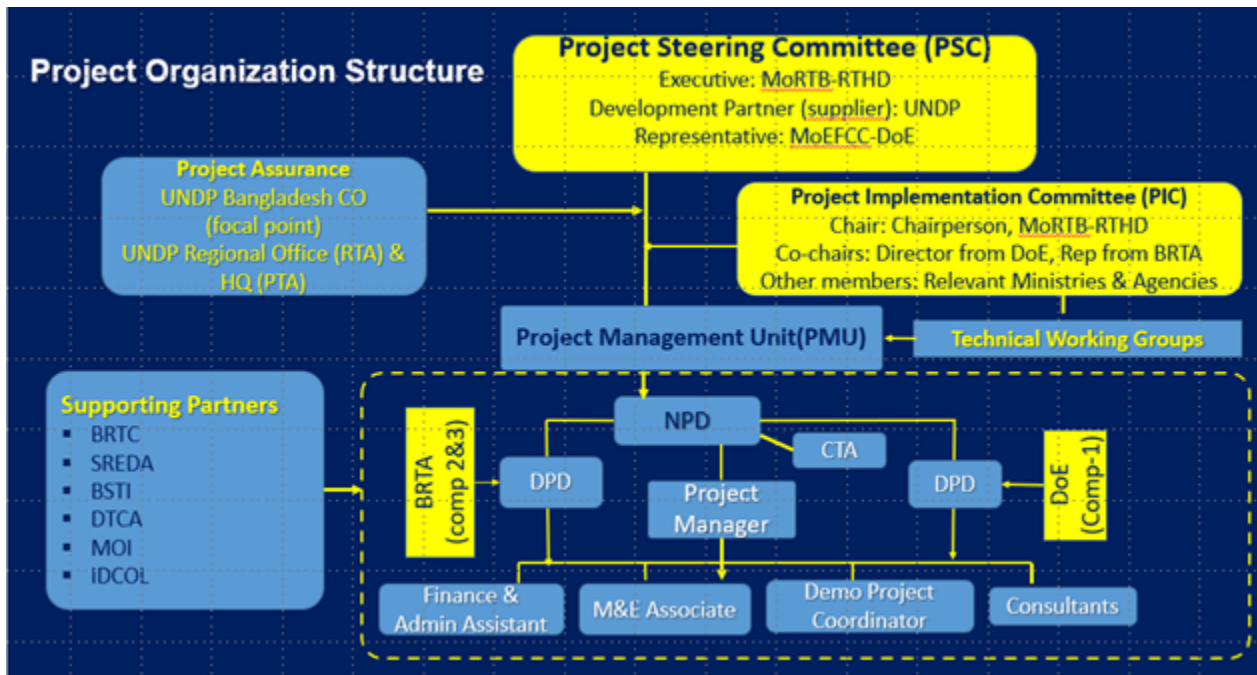
6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

1. UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures, including compliance with the risk management and social and environmental standards of UNDP.

2. The Project will be implemented under the Full National Implementation Modality (Full NIM). The Implementing Partner for this project is the Ministry of Road Transport and Bridges (MoRTB, represented by the Road Transport and Highways Division, RTHD). To assist with successfully delivering project outcomes and components, the project is executed by two Implementing Entities, the Bangladesh Road Transport Authority (BRTA), responsible for activities of Component 2 and 3, together with the Department of Environment (DoE) of the Ministry for the Environment, Forests and Climate Change (MoEFCC), responsible for activities of the Components 1.

3. The Project Steering Committee (PSC, also referred to as Project Board) is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's ultimate accountability, PSC decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. The two main (mandatory) roles of the PSC are 1) high-level oversight of the execution of the project by the Implementing Partner (MoRTB-RTHD), and 2) approval of strategic project execution decisions of the Implementing Partner.



Notes:

- ? Regional Bureau oversees the Resident Representative (RR) and Country Office compliance at portfolio level

- ? Burea for Programme and Policy Support (BPPS) Nature, Climate & Energy (NCE) Regional Technical Assistance (RTA) oversees technical quality assurance and GEF compliance. BPPS NCE Principle Technical Advisor (PTA) at Headquarters (Hqs) oversees NCE RTA function.
- ? UNDP Executive Coordinator and Regional Bureau Dep. Director can revoke delegation of authority (DOA)/cancel/suspend the Project or provide enhanced oversight
- ? RR: Resident Representative; BPPS: Bureau for Policy and Programme Support; NCE: Nature, Climate and Energy; PTA: Principal Technical Advisor; RTA: Regional Technical Advisor

3. Given the wide range of institutions and organizations involved and thematic and technical issues covered by the Project, and to ensure more agile decision-making regarding output-level implementation, the Project governance structure is complemented by a Project Implementation Committee (PIC). The PIC is chaired by MoRTB-RTHD (designated official) and co-chaired by BRTA and DoE (designated officials) and will consist of these entities, UNDP, plus other Ministries and relevant Agencies/Departments (e.g., SREDA, BRTC, IDCOL, REB, Power Division, BSTI, NBR, BSS), and city-level entities (e.g. DTCA) as well as representative from universities and research institutes, private sector organizations and NGOs. The PIC will ensure the realisation of project benefits and sustainability from the perspective of project beneficiaries. In order to focus on specific thematic areas, the PIC may form Technical Working Groups, focussing on one or more aspects of the EV ecosystem.

4. The National Project Director will be nominated by MoRTB-RTHD and will be responsible for the overall direction, strategic guidance and timely delivery of project outputs. The NPD will be supported by a Deputy Project Director (DPD) who will be nominated from DoE by MoEFCC, and who will be responsible for the overall direction, strategic guidance and timely delivery of the project outputs under the guidance and consultation with the NPD. The NPD and DPD present ownership of the project, representing MoRTB/RTHD and MoEFCC/DoE respectively. The Project Management Unit (PMU), hosted by MoRTB-RTHD, will manage the day-to-day activities of the Project. It will consist of the following full-time staff of which the Project Manager, Demo projects Coordinator, Monitoring and Evaluation Officer and Financial-Administrative Officer are hired with GEF funds[1].

5. The proposed project is a child project under the GEF-supported program ?Global Programme to Support Countries with the Shift to Electric Mobility?, led by UN Environment, with the objective to support countries to design and implement electric mobility programs as part of an overall shift to sustainable, low carbon transport sector. Establishing substantive linkages to the UNEP Global Program on ?Supporting the Shift to Global Electric Mobility? will be central to the BEEVA project design.

[1] In addition to the GEF funding, it is proposed that UNDP hires from its own funds a Chief Technical Advisor (CTA) to support the PMU on an intermediary basis, for example: recommend actions that focus work plans on achieving key milestones in a timely manner; recommend special expertise to be deployed on the Project to assist in its achievement of key milestones; and provide the interface between Project team and key specialist consultants, both domestic and international when appropriate.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

1. The **Automobile Industry Development Policy (2021)**, drafted by the Ministry of Industries, has been endorsed by the Cabinet recently. It aims to develop the automotive industry in the country and gradually become an exporter. The policy includes, among others, holidays and fiscal incentives for investors for producing EVs and parts, tax benefits, restrictions on reconditioned vehicles, fiscal incentives for research and development. The Policy calls for at least 15% of registered vehicles to be powered by environment-friendly electricity in 2030.

There are several closely inked policies and strategies on energy and transport that are addressing different sets of issues.

The **Bangladesh Climate Change Strategy and Action Plan 2009 (BCCSAP)** is a strategy document addressing climate change and directs the relevant policy landscape of Bangladesh. Even though it prioritizes adaptation and disaster management measures, it includes issues like low carbon development, mitigation, technology transfer and the mobilization and international provision of adequate finance. An update of the BCCSAP has been drafted (2020).

The **Nationally Determined Contribution of Bangladesh (2015)** was published in 2015 by the Ministry of Environment and Forestry (MOEF) of the GOB. The official document articulated Bangladesh's commitment to joining the global force to combat climate change. In the NDC, Bangladesh has committed to reducing GHG emissions in the power, industry and transport sectors by 5% below business-as-usual GHG emissions by 2030 using only domestic resources, or by 15% below business-as-usual GHG emissions by 2030 if sufficient and appropriate support is received from developed countries). The **NDC Action Plan (2018)** mentions for the transport sector, inter alia, shift encouraging people to switch to lower-emitting modes of transport as a means to reduce GHG emissions.

The **Updated NDC (2021)** puts an unconditional scenario in which GHG emissions would be reduced by 27.56 Mt CO_{2e} (6.73%) below BAU in 2030 in the respective sectors. 26.3 Mt CO_{2e} (95.4%) of this emission reduction will be from the energy sector while 0.64 (2.3%) and 0.6 (2.2%) Mt CO_{2e} reduction will be from AFOLU (agriculture) and waste sector respectively. There will be no reduction in the IPPU sector. In the conditional scenario, GHG emissions would be reduced by 89.47 Mt CO_{2e} (21.85%) below BAU in 2030 (the conditional mitigation measures will be implemented by Bangladesh, only if there is external financial/technology support). The conditional scenario is based on 85.98 Mt CO_{2e} (96.1%) emission reduction from the energy sector, while 1.04 (1.16%) and 2.45 (2.74%) Mt CO_{2e} reduction will be from AFOLU (agriculture) and waste Sector respectively. There will be no reduction in the IPPU Sector.

The **Energy Efficiency and Conservation Master Plan up to 2030** was developed jointly in 2015 by SREDA and the Power Division of the Ministry of Power, Energy and Mineral Resources (MPEMR). In

this document, GOB has declared its intention to reduce 20% primary energy consumption per GDP by the year 2030.

? The **Net Metering Guidelines** were launched in 2018 by the Power Division of the MPEMR aimed to incentivize the installation of rooftop solar PV systems. The main idea behind the net-metering mechanism is that it allows consumers to become 'prosumers' (consumers who also produce electricity) by connecting their RE systems to the distribution grid via a bi-directional smart meter. The prosumers accumulate kWh credit for any excess electricity supplied to the grid after self-consumption. The kWh credit is allowed to roll over until the end of the settlement period and by the end of it, the prosumer is entitled to receive the equivalent price of net export.

? The **National Solar Energy Roadmap** (2021-2041) aims to install between 6000 MW (business-as-usual) and 20,000 (medium case) to 30,000 MW (high case scenario) by 2041, of which between 80 MW (BaU) and 101 (medium case) to 221 MW (high case) by the year 2041 (up from about 1 MW in 2020).

? The **Renewable Energy Policy** (MPEMR, 2009) aims at scaling up renewable energy in electricity and heat energy production and seeks to enable, encourage and facilitate both public and private sector investment in renewable energy projects.

? The **Electric Vehicle Registration and Operation Guidelines (2018)**, by BRTA, were first drafted in November 2018. Since then, these have been updated and appear to be on their way to being officially finalised, also aiming at bringing illegally run electric three-wheelers under control.

? Environmental degradation, natural disaster, habitat & biodiversity, and pollution issues are addressed in several acts/laws/rules, such as the **National Environmental Policy** (1992), **National Environmental Management Action Plan** (1995), **Environment Conservation Act** (1995; with amendments in 2000, 2010) and the **Environmental Court Act** (2000, 2002)

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

1. The project will effectively engage the stakeholders involved in the project to get their support and guide the project implementation to achieve higher results.

? Project outreach proposed includes project website, media (print/audiovisual), workshops, training, etc.

? The PMU and the Project Board will ensure that the Gender Action Plan recommended by the project is pursued and implemented. The various groups especially women will be engaged during the consultation meetings, prioritized to avail the program, and be included in the different capacity building programs. The project will also ensure that it is closely coordinated with other initiatives supported by development partners on electric mobility

? Meetings, monitoring visits, surveys, and written communications will be used to receive feedback to continue the ongoing dialogue as well as during implementation.

? The project will follow a participatory approach in decision making by engaging all the relevant stakeholders. The Government agencies, NGOs, CSOs, and the private sector actors will be actively involved during the project implementation.

2. The Project will also emphasize strong communications with a broader range of stakeholders. Key elements of the project's communication strategy are outlined in the table below:

Key element	Relevant group	Means and approximate GEF budget	Timeframe
1. Project governance meetings; PSC meetings; Working Group meetings	All stakeholders that are members of the PSC or its Working Groups or are invited to attend	Meetings	Periodically, depending on PSC and PAC frequency of meetings
2. Seminars/workshops and training events, including the Inception workshop, and final project workshop	National and sub-national government officials Private sector; NGOs and CSOs	Workshop, meeting, seminar, training; On-the-job training (budget about USD 98,000)	Typically, workshops will be held to start up an activity and/or at the end to present results. The timeline of each activity is given in Annex B of the UNDP ProDoc
	Exchanges and events with global e-mobility programme	Events, study tour, info exchange (USD 90,000 of which at least USD 50,000 for global e-mobility related travel)	
3. Project documents, thematic reports and publications; Technical and other reports	Government departments and decision-makers at the national and sub-national level; Development partners; Research institutes and academia; individual experts; NGOs	Direct dissemination (e.g., email or hard copy/USB-drive); Access via a website to reports and documents and info systems (about USD 27,500)	Technical reports will typically be published at the end of an assignment (see Annex B of the ProDoc).

<p>4. Project knowledge capturing and info dissemination., including two-way knowledge and info exchange with regional project [1]</p>	<p>Government officials; Financial and private sector; Development partners; NGOs and CSOs</p>	<p>Online access; Printed materials, Broadcasted and online media; Promotional campaign (about USD 60,000 for promotion and awareness, which includes travel budget for Global - mobility participation)</p>	<p>Thematic reports and knowledge products are published at the end of one or more outputs to provide a summary of findings, results, lessons learnt</p>
--	--	--	--

[1] Establishing substantive linkages to the UNEP Global Programme on 'Supporting the Shift to Global Electric Mobility' is central to the BEEVA project design and will be an important priority for the project. As soon as the Project Manager is selected and hired, they should immediately make sure to connect with the UNEP Global Programme to discuss future cooperation and collaboration. A representative from UNEP will be invited to the project inception workshop and to the end of project workshop. In addition, the project team will aim to participate in UNEP global programme organized workshops and training events; both online and in person. The activities of the project will be synergized to draw knowledge from the programmatic efforts. It will complement sharing of experience on all key project components and in particular, Component 3 for international best practices and capacity building and on Component 1 on policy and regulatory interventions. Experience and learning through Component 2 for establishing 'proof of concept' will be shared with the regional platforms for further feedback and the creation of new knowledge

9. Monitoring and Evaluation

Describe the budgeted M and E plan

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. The UNDP Country Office is responsible for ensuring full compliance with all UNDP project monitoring, quality assurance, risk management, and evaluation requirements.

Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies. The costed M&E plan

included below, and the Monitoring plan in Annex 5, will guide the GEF-specific M&E activities to be undertaken by this project.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

Key Project-specific M&E and Responsibilities

The Project Manager will play a key role in regularly monitoring the outcomes and activities of this project. In particular, Ministry of Road Transport and Bridges (MRTB) will support day-to-day monitoring of the project's activities. The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks (outlined in SESP) as well as gender action plan outcomes (outlined in Gender Assessment and Action Plan). The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

Further, the Project Manager is responsible to initiate and manage primary data collection for indicators in the Project Results Framework. The following key M&E activities and reports are proposed to be produced during the implementation of this project, and required to be collected, monitored and evaluated under the oversight of the Project Manager:

? M&E for Project Objective, Outcomes and GEF Core Indicators:

? M&E for Project Component-level Outcome Indicators

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

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

Project Implementing Partner: With support from the project, MRTB will develop and deploy a monitoring, evaluation, reporting, and verification system to track the implementation of master planning, policy and regulatory frameworks, feasibility studies, training, and associated investment and avoided emissions. MRTB will use this system to supply all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data. MRTB will strive to ensure that project-level M&E is undertaken by project stakeholders in both the public and private sector, and that results of M&E are aligned with national systems so that the data used by and generated by the project supports national systems.

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, and available to support MRTB as needed. Project progress meetings will take place according to the schedule outlined in the annual work plan. Notes of the Project Progress meetings will be taken by the project team and circulated to the PB. The UNDP Country Office will support key GEF M&E activities including the annual GEF PIR, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

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

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

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

Additional GEF monitoring and reporting requirements:

|

Inception Workshop and Report: A project inception workshop will be held within 60 days of project CEO endorsement, with the aim to:

- a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
- b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
- c. Review the results framework and monitoring plan.

d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.

e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.

f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.

g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.

h. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR submitted to the GEF will be shared with the Project Board. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge sharing: Results from the project will be disseminated to all key project stakeholders via M&E and Knowledge Dissemination workshops. The project will also closely coordinate and participate in UN Environment's Global E-Mobility Program (GEF-funded) activities and workshops, to share lessons learned and potentially use tools and systems developed by the Global Program.

GEF Core Indicators:

The GEF and/or LDCF/SCCF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground-truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website.

Independent Mid-term Review (MTR):

The terms of reference, the review process and the final MTR report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). The evaluation will be "independent, impartial and rigorous". The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the evaluation process. Additional quality

assurance support is available from the BPPS/GEF Directorate. The final MTR report and MTR TOR will be publicly available in English. The MTR process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's completion. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration.

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center. The evaluation will be "independent, impartial and rigorous". The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate. The final TE report and TE TOR will be publicly available in English. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Advisor and will be approved by the Project Board.

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

Final Report:

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

GEF M&E requirements	Responsible Parties	Indicative costs (USD)	Time frame
Inception Workshop and Report	MoRTB-RTHD Project Manager (PM)	3,500	Within 2 months of CEO endorsement of this project.

Monitoring of indicators in the project results framework	PM M&E expert, PMU	6,500	Annually before GEF PIR and/or by contracted party before TE
GEF Project Implementation Report (PIR)	UNDP RTA ?CO PM and M&E expert	None	Annually typically between June-August
Monitoring of risk log (Annex C), project ESMF (Annex N) and gender action plan (Annex H)	UNDP CO M&E expert	None	On-going.
Supervision missions	UNDP CO, RTA and BPPS/GEF	None	Annually, as needed
Final project workshop	MoRTB-RTHD, UNDP CO	3,500	Before project closure
Independent Mid-Term Review (MTR)	Independent evaluators	25,075	See ProDoc cover page
Independent Terminal Evaluation (TE)	Independent evaluators	25,075	See ProDoc cover page
TOTAL indicative COST		63,650	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?

1. The EV ecosystem may implicate a reduction in the workforce in many industries such as the automotive industry, petroleum industry (less fossil fuel use), and vehicle repair services (as maintenance needs of EV, in general, are less than of conventional vehicles). The closure of various businesses due to the use of electric vehicles will also result in a reduction in national income, especially from the petroleum industry and vehicle service services. On the other hand, the assembly of electric vehicles for domestic sales and export will boost new employment opportunities. The project includes actions to facilitate access to EV-related jobs through training, and a revision of recruitment strategies, taking advantage of the appeal of EV technologies for potential workers (so that they are skilled in maintenance and repair of e-motor scooters, e-bicycles, and all-electric cars, as well as in the conversion of ICEV motor scooters and bicycles into e-two wheelers).

2. Another key element of the Project's sustainability is its focus on the private sector as an existing driving force in the market of EVs. Bangladesh will demonstrate the positive environmental and economic benefits of charging infrastructure for electric vehicles. By disseminating this information with an intent to scale up to leverage investment in more electric buses and charging stations for EV, strong interest from local investors should be catalyzed. This will include local manufacturers of motor vehicles to assemble EVs in Bangladesh to create local employment and private sector companies who would invest in acquiring electric buses and/or four-wheeled passenger EVs. This will strengthen the sustained growth of electric vehicles for both domestic use and possible export in the longer run.

3. The project will endeavour to encourage key players in the urban transport services to incorporate women either as operators, entrepreneurs, etc. The project includes actions to facilitate access to EV-related jobs through training, and a revision of recruitment strategies, taking advantage of the appeal of EV technologies for potential workers (so that they are skilled in maintenance and repair of e-motor scooters, e-bicycles, and all-electric cars, in particular related to electric buses and their charging infrastructure).

4. Socioeconomic development and climate change are intricately linked, with social and economic activities determining energy use determining emissions determining climate forcing and climate change determining climate impacts which in turn affect socio-economic developments. For example, the realization of charging infrastructure for electric vehicles will have both environmental and socio-economic impacts. More people will use electric vehicles instead of fossil-fueled vehicles leading to a decrease in local urban pollution and global warming mitigation, while at the same time providing skilled jobs and employment in the EV ecosystem. Seeing both the direct environmental (cleaner urban environment) and socioeconomic benefits (new skilled jobs and better services; lower total (lifecycle) cost of vehicle ownership and use) will attract more potential vehicle owners or users to 'go electric' and eventually transform the market in self-sustained growth.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification *

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
SES_3 March 2022	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

	Objective and Outcome Indicators	Baseline (2021)	Mid-term project (2024)	End of Project (EoP) target (2026)
<p>Project Objective:</p> <p>To create enabling conditions towards the transformation of the transport sector of Bangladesh to low carbon and sustainable transportation system by adopting electric vehicles (EVs) that facilitate reducing the GHG emissions, enhancing green growth, and minimizing the adverse impact on public health; and support key stakeholders in the development of viable e-mobility business models</p>	1) Lifetime direct GHG emissions avoided as a result of the project-facilitated establishment of EV charging facilities and indirect emission [GEF Core Indicator]	Zero by definition	? of direct emission target (direct: 8 ktCO ₂)	<p>Direct lifetime emission reduction of 15,657 tCO₂ (mixed GEF-supported and confirmed co-financed investment; see Indicator 3)</p> <p>Indirect emission reduction of 217,073 tCO₂ (see Annex F for calculation details)</p>
	2) Number of direct project beneficiaries disaggregated by gender (individual people) [GEF core indicator] *	Zero by definition	? of EoP target (335,000)	Total: 672,600 Defined as people benefiting from rides on EV: 672,000 a year (assumed to be 50% women and 50% men) and 610 people directly from Project's training and workshops). See Annex F for estimate calculation)
	3) Volume of investment mobilized by GEF for low GHG development (co-financing)	Confirmed co-financing for INV of USD 16.95 million	USD 8 million of confirmed co-financing is realized	Realized amounts are at least the same as confirmed INV co-financing (USD 16.95 million).
<p>Component 1 Streamlining energy, transport legislation, regulation, and policies, and EV charging policy and regulations for electric vehicle</p>				

	Objective and Outcome Indicators	Baseline (2021)	Mid-term project (2024)	End of Project (EoP) target (2026)
Outcome 1: Enhanced readiness for the sustainable development of the market for 2-3 wheelers and 4-wheelers and charging infrastructure	4) Status and number of updated plans and revised regulations enabling and incentivizing investment in BEV and support infrastructure and on BEV manufacturing	Reduce the import duties on used EVs and hybrids, and would make them more affordable.	Set of elements of improved framework conceptualised	Improved framework of regulations and technical standards: - Regulations/standards for charging infrastructure for private and public entities - Regulation and permits for 2-3 wheelers; Separate registration mechanism for EV - Incentives for promotion of EVs and regulations for local manufacturing
	5) Status of Roadmap on EV market penetration support for local manufacturing and EV charging infrastructure	No roadmap available	First draft text for Roadmap document available	Roadmap endorsed by responsible line ministry with EV targets, a timeline for completing regulatory-standards framework, incentives
	6) Status of guidelines on the safe and environment-friendly use of batteries (in EVs) developed for the producers and recyclers	Not available	Guidelines and regulations for EV battery use and recycling proposed	One set of regulations for EV batteries adopted by BSTI (in cooperation with MoI and other line agencies concerned) with one set of expanded DoE guidelines regarding battery recycling and registration/permits of recyclers
	7) Strategy for the electrification of the Government Vehicle Fleet	Not available	ToR finalized and Consultants Hired to Prepare the Strategy	Finalized Strategy for Electrification of the Government Vehicle Fleet, agreed and adopted
Outputs, Outcome 1	1.1 Assessment of feasibility of and requirements for the development of EV market and charging infrastructure 1.2 Streamlined policies, legislation, regulations and road map for EV penetration in public and private transport and EV charging infrastructure are adopted (including agreed and adopted government strategy for electrification of the government vehicle fleet) 1.3 Feasible strategy and proposed regulation for environmentally sound end-of-life management and recycling of batteries 1.4 EV assemblers and component manufacturers are increasing production of standardized products 1.5 EV financial mechanism(s) developed and agreed on			

	Objective and Outcome Indicators	Baseline (2021)	Mid-term project (2024)	End of Project (EoP) target (2026)
Component 2 Demonstration of electric vehicle charging stations (proof of concept)				
Outcome 2a: Pilot investments enabled for electric buses and charging facilities and demonstrated market development of low-carbon charging infrastructure (with focus on two and three-wheelers)	8) Status of the plans, incentives and regulations for establishment and diffusion of the EVs in target sector (public transport) and/or focus geographical area (city, small town) *	No plans except for e-bus purchase of BRTC	EV-related sectoral and/or city/town issues and options assessed	One plan formulated for EV penetration in the public transport sector (e-buses, Dhaka) and at least one other geographical/thematic area (solar charging and/or plans for public transport in one small town.)
	9) Successfully established EV charging facilities with business plans (focus on serving two/three-wheelers)	About 280 kW of solar/hybrid charging facilities installed by public entities (14 systems)	50 kW of charging capacity is installed (of which 24 kW solar capacity)	105 kW of charging facilities is operational (of which 48 kW solar and monitored [3 systems]. Another 416 kW (co-financed) in final stages of preparation, under construction or installed (of which 143 kW solar) [note: figures in addition to baseline]
	10) Successfully established EV charging for 50 electric buses operated by BRTC	No electric buses purchased or operating in Bangladesh	At least three fast-chargers installed (with GEF support) and 30 e-buses purchased by BRTC	The operation of the bus charging facilities has been monitored; Additional 2 chargers installed, financed and 20 buses purchased by BRTC, bringing the total to 50 e-buses. Plans approved for post-project implementation for 450 e-buses.
Outputs, Outcome 2	2.1 Feasibility assessed and strategy on e-buses and charging infrastructure options formulated 2.2 Pilot on electric buses and charging implemented (INV) 2.3 Feasibility assessed and strategy on (solar-hybrid) charging infrastructure formulated 2.4 Demonstration of solar hybrid EV charging stations (INV) 2.5 Pilot on EV battery collection for sustainable recycling pilot implemented (INV)			
Component 3 Knowledge products and capacity building in EV ecosystem and sustainable battery management				

	Objective and Outcome Indicators	Baseline (2021)	Mid-term project (2024)	End of Project (EoP) target (2026)
Outcome 3: Awareness created and capacity of key-stakeholders built, and knowledge shared on EV ecosystem	11) Number of people (disaggregated by gender) sensitized by the awareness campaigns through different media and implementation of project activities *	0 (per definition)	50,000 (40% women)	100,000 (40% women) through media information and of which about 600 attending workshops/seminars and other events
	12) Introduced ToT (training of trainers) courses (including training materials) in institutes on the EV repairing, accessories service and charging infrastructures and EV-related planning	No special EV-oriented courses are available	ToT course available in at least one training institute	100 people trained (40 in training organized by Project in pilot/demo activities) plus 60 trained in training institute ? 20% women
	13) Status of lessons learned dissemination and linkage with Global e-Mobility programme	-	At least 2 workshops organised with Global Programme and Lessons Learned Study prepared	At least 3 workshops were organised and one international e-mobility event organised with the Global E-mobility programme; One final end-of-project study with lessons learned prepared and disseminated
	14) Percentage of females directly employed by EV related businesses	n/a	20%	30%
Outputs, Outcome 3	3.1 Knowledge exchange and benchmarking between countries (facilitated by UNEP Global E-mobility support) 3.2 Monitoring, reporting and verification of demos and GHG emissions 3.3 National promotion and awareness creation 3.4 Technical capacity is built in EV ecosystem and on sound battery management 3.5 Programs to address social, gender, safety, and employment issues			

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Given that this is a child project, there were no direct reviews to the BEEVA Project. The GEF SEC, GEF Council and STAP recommendations were answered by UN Environment. All related documents are uploaded to GEF Portal. Besides, there were few comments that are related to Bangladesh Project. Below table summarizes the UNDP responses to those reviews.

The following responses are available in separate files and uploaded in GEF Portal.

- B.1 Responses to GEF Sec Review (on the PFD)
- B.2 Responses to GEF Sec Reviews (on the PFD Addendum)
- B.3 Responses to STAP comments
- B.4 Response to Council comments

Response to Comments from the GEF		
Comments from GEF Secretariat		
No:	Comment	Response
1	1. Agency is requested to adequately screen the Program for climate risks and to adequately identify risks - and factor in any mitigation measure - into the Program and child projects' design, as presented at CEO endorsement request stage for each of the child projects.	Climate risks (vulnerability) are assessed for this project and addressed in risk section of the CEO ER document. Also, a specific risk is identified in this regard.

2	<p>2. General Comment on each Child Project's Component 1 (Policy Framework and Institutionalization of e-mobility): As noted in relation to several of the Child Project concept notes, in such instances Component 1 seems to have fallen short of what is to be expected by a GEF intervention. When it comes to policy frameworks and enabling environments, GEF investments should be going further than just coordinating actors/stakeholders at national level. As a bare minimum, the GEF intervention should conduct policy review/analysis and support drafting of an integrated policy framework to support the introduction/scale up of EV and charging stations, up to the point where such policy framework is considered by the relevant decision making bodies for adoption. As much as possible, policy adoption should follow, although we recognize that this is can be outside the control of the GEF Agency (i.e. this is an expected impact, rather than a project output or outcome). The Lead Agency is kindly requested to ensure that each one of the Child project is developed with this consideration in mind, and that this is reflected to in the individual CEO ERs as they come in after the detailed child project development stage/PPG stage. We ask the Lead Agency to acknowledge this point, which will be checked at the CEO ERs stage, and should apply for all those child projects where an adequate integrated policy framework is not yet in place.</p>	<p>Various outputs in Outcome 1 are dedicated to further elaborating the policy-regulatory framework, in particular the outputs:</p> <p>1.2 Streamlined policies, legislation, regulations and road map for EV penetration public and private transport and EV charging infrastructure are adopted</p> <p>1.3 Feasible strategy and proposed regulation for environmentally sound end-of-life management and recycling of batteries.</p>
Comments from Council members		

<p>1</p>	<p>Japan Council Member:</p> <p>1. We anticipate that participants of these projects may be severely impacted by the COVID-19 crisis. How realistic are the published co-financing arrangements to be met, and for the industry to meet the higher operating costs without de facto subsidization from the GEF?</p> <p>2. We would also like to stress the need for transparency and balanced involvement of private sector providers in any of these corporate projects (particularly highly cyclical sector projects such as the ones included in this work program in the steel and automobiles sectors), especially amid the COVID crisis, given that all such industry participants indiscriminately face severe business conditions. Projects should be carefully constructed and communicated, so that they are not deemed to infringe upon rules against subsidization of particular entities, thereby reinforcing the market power of some targeted companies at the expense of other firms? (as per the rules). For example, to de-risk investments in? in the project description/ objectives implies the potential of subsidization, highlighting the need for transparency in their construct and execution, so that they are visibly in line with GEF rules and regulations and the Private Sector Engagement Strategy to be adopted at this Council session. This type of crystal-clear communication/ governance insurance measure is essential for the GEF to credibly raise funding for private sector-driven projects in a tough financial environment.</p>	<p>COVID related considerations were carefully assessed and integrated into the project design. Please see Risk analysis in the CEO ER document. A specific risk regarding the COVID was added to the risk register and planned management countermeasures were defined.</p> <p>Also, private sector engagement has been analyzed and defined under private sector engagement section of the CEO ER.</p>
<p>2</p>	<p>Canada Council Member:</p> <p>1. We recommend that there be some consideration to mitigating the environmental impacts of electric vehicles, particularly where facilities for managing batteries don't exist.</p>	<p>Sustainable EV battery management is the subject of separate Outputs 1.3 and pilot activities on EV battery recycling in Output 2.5.</p>
<p>3</p>	<p>US Council Member:</p> <p>1. Within Bangladesh, we recommend additionally coordinating with the State Minister for Power, Energy, and Mineral Resources, and the Dhaka North City Corporation Mayor.</p>	<p>The Project defined a detailed stakeholder engagement plan which provided as an annex to project document. Also, stakeholder engagement section of the CEO ER document summarizes this approach. In specific, the Project Implementation Committee (PIC) will be responsible from engaging with these ministries and key institutions.</p>

4	<p>Germany Council Member</p> <p>1. Germany welcomes that the project foresees a clear role for the private sector as a supplier for electro mobility technologies. However, given that private sector investments in electric mobility will be key, Germany would welcome the inclusion of activities that specifically directed at spurring private investments in electric mobility (from the demand side). For instance, some firms have switched parts of their operations to electric fleets. These types of opportunities could be considered within the PIF.</p>	<p>Private sector involvement is detailed in the CEO ER as well as in the ProDoc (section 4.4). Also, EV manufacturers/assemblers and battery companies are particularly involved in activities 1.3 and 1.4 as well as knowledge activities of Component 3</p>
5	<p>Norway Council Member:</p> <p>1. Every country has to choose their own path. However, an important lesson so far is that one needs to tax emissions. You need carrots and sticks. In line with general GEF principles of an enabling policy framework, one should pay attention to relevant tax policies when designing GEF programs, including policies for reducing fossil fuel subsidies.</p>	<p>Tax issues will be addressed as part of policy-regulatory framework in Output 1.2</p>
Comments from STAP		
1	<p>Comment 3: A core challenge will be to ensure that the source of electricity for the e?mobility platform is low carbon to maximize the GHG reduction benefit. All calculations for GHG emissions (cars, buses versus trains etc.) need to be evaluated in terms of life?cycle analysis methodologies to ensure full systems? wide GHG benefits and ensure that impacts are internalized.</p>	<p>Indeed, lifetime energy saving and GHG emission reduction have been estimated and assessed in great detail (and presented in Annex F of the ProDoc).</p>
2	<p>Comment 4: The program will generate both climate mitigation and air pollution reduction benefits. If possible, the expected health benefits from air pollution reduction (for example, premature death prevention and Disability?Adjusted Life Years ? DALYs) should be estimated during project development. This will provide a more detailed information on the environmental and socio?economic benefits from the GEF?s investment.</p>	<p>The impact of vehicular emissions on health in the Dhaka, for example, is briefly discussed in section 1.1 of the ProDoc. However, as the share of EV in Dhaka?s vehicle park will still be small it does not make sense to do detailed measurements in this early market development stage.</p>

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).

(Provide detailed funding amount of the PPG activities financing status in the table below:

<i>Project Preparation Activities Implemented</i>	<i>GETF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Project preparation grant to finalize the UNDP-GEF project document for project.			
Enabling Electric Vehicles (EVs) Adoption in the framework of Sustainable energy-based Transportation in Bangladesh			
Preparatory Technical Studies & Reviews	12,025	4,301	9,441

Formulation of the UNDP-GEF Project Document, CEO Endorsement Request, and Mandatory and Project Specific Annexes	21,125	18,215	3,600
Validation Workshop and Report	12,722	8,239	2,076
Total	45,872	30,755	15,117

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.



ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USDeq.)					Total (USDeq.)	Responsible Entity
		Component 1	Component 2	Component 3	M&E	PMC		(Executing Entity receiving funds from the GEF Agency)[1]
Equipment	Communication and AV equipment and Office equipment (IT, computer) (USD 23,660), maintenance cost premises (USD 6000)					23,660	23,660	MoRTB

<p>Contractual Services ? Individual</p>	<p>Contractual services by IP for Demo project Coordinator (Component 2) and M&E Officer (together totalling USD 210,000 over 3.5 years) divided over the three technical components</p> <p>A Chief Technical Advisor will be hired (see separate budget note 27)-A Chief Technical Advisor will be hired (at USD 55,000 a year and estimated 60 to 80 days per annum) at a total budget of USD 220,000 for supporting activities in the three components. The duration of the contract of the international CTA should be one year renewable and a condition of the contract should be that at least 50% of the number of days must be spent in country in Bangladesh. The cost of the international CTA shall be funded from budget line 71 800 from budget line 1,2, and 3.</p>	<p>154,675</p>				<p>154,675</p>	<p>MoRTB</p>
--	--	----------------	--	--	--	----------------	--------------

<p>Contractual Services ? Individual</p>	<p>Contractual services by IP for Demo project Coordinator (Component 2) and M&E Officer (together totalling USD 210,000 over 3.5 years) divided over the three technical components</p> <p>A Chief Technical Advisor will be hired (see separate budget note 27)-A Chief Technical Advisor will be hired (at USD 55,000 a year and estimated 60 to 80 days per annum) at a total budget of USD 220,000 for supporting activities in the three components. The duration of the contract of the international CTA should be one year renewable and a condition of the contract should be that at least 50% of the number of days must be spent in country in Bangladesh. The cost of the international CTA shall be funded from budget line 71 800 from budget line 1,2, and 3.</p>		<p>149,675</p>			<p>149,675</p>	<p>MoRTB</p>
--	--	--	----------------	--	--	----------------	--------------

<p>Contractual Services ? Individual</p>	<p>Contractual services by IP for Demo project Coordinator (Component 2) and M&E Officer (together totalling USD 210,000 over 3.5 years) divided over the three technical components</p> <p>A Chief Technical Advisor will be hired (see separate budget note 27)-A Chief Technical Advisor will be hired (at USD 55,000 a year and estimated 60 to 80 days per annum) at a total budget of USD 220,000 for supporting activities in the three components. The duration of the contract of the international CTA should be one year renewable and a condition of the contract should be that at least 50% of the number of days must be spent in country in Bangladesh. The cost of the international CTA shall be funded from budget line 71 800 from budget line 1,2, and 3.</p>			<p>154,675</p>		<p>154,675</p>	<p>MoRTB</p>
--	--	--	--	----------------	--	----------------	--------------

<p>Contractual Services ? Individual</p>	<p>Project management costs (PMC): contractual services by IP of Project Manager (USD 40,975) and Fin-Admin Officer(s) (USD 50,000) divided over administrative tasks (total USD 90,975 over 4 years). Total budget PM over 4 years is USD 170,000, of which USD 100,000 co-financed by UNDP and USD 70,000 by GEF, of which correspond to management tasks USD 40,975 and to technical tasks of project manager in the three components USD 29,025</p>					<p>90,975</p>	<p>90,975</p>	<p>MoRTB</p>
<p>Contractual Services ? Company</p>	<p>Company contracts for market assessment, EV and EV infrastructure scenarios and public-private partnerships (USD 40,000) and for Assessment and advice on the practice of battery recycling and re-use in Bangladesh (USD 35,000)</p>	<p>75,000</p>				<p>75,000</p>	<p>MoRTB</p>	

<p>Contractual Services ? Company</p>	<p>Company contract (USD 30,000) for assessment and strategy on e-buses and charging infrastructure options; recommendations for bus transport companies and city planners in general and BRTC EV charging in particular. Contract for implementation GEF investment support (INV) for pilot/demo activities (e-bus charg: USD 345,000)- Company contracts for on experiences with solar charging stations and current charging practices, and strategy on charging infrastructure options for 2-3 wheelers; feasibility demo/pilot; recommendation on local charging stations business models (USD 25,000). Contract for implementation of GEF INV solar charging stations, 2 or 3-wheeler-focussed, USD 100,000. Contract for implementation of battery collection for sustainable recycling pilot (USD 125,000)</p>		<p>625,000</p>			<p>625,000</p>	<p>MoRTB</p>
--	--	--	----------------	--	--	----------------	--------------

<p>Contractual Services ? Company</p>	<p>Company contracts for A) skill needs assessment and design of technical-economic courses and on EV and transport planning; Support to ToT (training of trainers) (USD 20,000); B) Design of awareness creation and communication program (media, TV, online) with public events (USD 35,000)</p>						
	<p>Company contracts for A) Monitoring plan and implementation; assessment of social and environmental impacts, including GHG emission reduction and advice to DoE on integrating results in national GHG reporting (USD 55,000); b) Measurement of logframe indicators; and for End-of-project assessment and lessons learned study (USD 24,785)</p>			134,785		134,785	MoRTB

Contractual Services ? Company	M&E: inception workshop and final project workshop (USD 7,000) and contract for M&E indicators (USD 6,500)				6,500	6,500	MoRTB
International Consultants	International consultancy for advice and assessment of environmental regulations regarding local manufacturing and recycling of EV components; and advice on EV strategy and road map and regulatory-incentives-standards framework; Participation in inception workshop (9 person.weeks @ USD 2750/week)	24,750				24,750	MoRTB
International Consultants	International consultancy to advice on technical aspects of electric buses and charging and on two/three-wheelers and solar PV charging in Components 2 (USD 16,500).		16,500			16,500	MoRTB

International Consultants	International (3 weeks @ USD 2750/week), and travel cost to support Output 3.2 activities. Total of USD 16,500 for international consultancy on e-mobility to participate and/or prepare national and Global programm e-mobility events (4 person.weeks) and to setup and assist in Training-of-Trainer course			24,750		24,750	MoRTB
International Consultants	International and local consultancy for mid-term review and terminal evaluation (about 5-6 weeks each). Budget for consultancy and travel for M&E (final, MTR) is USD 45,650 (excl. travel)				35,750	35,750	UNDP

<p>Local Consultants</p>	<p>Local consultancy on a study on the grid impacts on large-scale use of EVs for electrical infrastructure, advice on EV and EV charging road map (4 person.weeks @ USD 1125/week), Local consultancy on strategy with incentives for environmentally sound domestic manufacturing of EV and EV components (for domestic sale and export) @ 4 person.weeks</p>	<p>9,000</p>				<p>9,000</p>	<p>MoRTB</p>
<p>Local Consultants</p>	<p>Local consultancy on needs and opinion of stakeholders in pilot/demo charging of two/three-wheelers; solar irrigation), and technical advice in Component 2 (4 person.weeks)</p>		<p>4,500</p>			<p>4,500</p>	<p>MoRTB</p>

<p>Local Consultants</p>	<p>Local expert for advice and selection of training institute/university etc for setting up a ?training of trainers? course (4 person.weeks @ USD 1125/week). Local consultants for preparation and delivery of workshops, seminar and promotional events (incl. those linked with Global E-mobility events (4 person.weeks) and gender and social issues (4 person.weeks @ USD 1125/week). National consultancy (3 weeks @ 1125/week) to support Output 3.2 activities</p>			16,875		16,875	MoRTB
<p>Local Consultants</p>	<p>International and local consultancy for mid-term review and terminal evaluation (about 5-6 weeks each). Budget for consultancy and travel for M&E (final, MTR) is USD 45,650 (excl. travel)</p>			9,900		9,900	UNDP

Trainings, Workshops, Meetings	Workshops and seminars (04 workshop.days @ USD 3500/day) for component 1 activities	14,000					14,000	MoRTB
Trainings, Workshops, Meetings	Workshops and seminars (about 4 workshop.days) for component 2 activities		14,000				14,000	MoRTB
Trainings, Workshops, Meetings	USD 62,315 for workshops and seminars (about 9 workshop.days) for component 3 activities , incl. international e-mobility event (03), pilot/demo monitoring (02) and presentation of lessons learned and awareness (02) and gender and social (02)			62,315			62,315	MoRTB
Trainings, Workshops, Meetings	M&E: inception workshop and final project workshop (USD 7,000) and contract for M&E indicators (USD 6,500)				7,000		7,000	MoRTB
Office Supplies	Office supply cost (USD 4000) and); AV and printing and supplies cost (USD 23,000)					4,000	4,000	MoRTB

Travel	Travel for PMU staff, short-term consultants related to technical assignments in the three components and to facilitate participation in events linked with the UNEP-managed Global E-mobility programme)	12,044					12,044	MoRTB
Travel	Travel for PMU staff, short-term consultants related to technical assignments in the three components and to facilitate participation in events linked with the UNEP-managed Global E-mobility programme)		10,034				10,034	MoRTB
Travel	Travel for PMU staff, short-term consultants related to technical assignments in the three components and to facilitate participation in events linked with the UNEP-managed Global E-mobility programme)			60,128			60,128	MoRTB

Travel	Travel for PMU staff, short-term consultants related to technical assignments in the three components and to facilitate participation in events linked with the UNEP-managed Global E-mobility programme)					4,500	4,500	UNDP
Travel	Travel for PMU staff, short-term consultants related to technical assignments in the three components and to facilitate participation in events linked with the UNEP-managed Global E-mobility programme)					5,000	5,000	MoRTB
Other Operating Costs	Communication and AV equipment and Office equipment (IT, computer) (USD 23,660), maintenance cost premises (USD 6000)					6,000	6,000	MoRTB
Other Operating Costs	Office supply cost (USD 4000) and; AV and printing and supplies cost (USD 23,000)					23,000	23,000	MoRTB
Other Operating Costs	Professional hired services for project auditing (USD 10,000)					10,000	10,000	UNDP
Grand Total		289,469	819,709	453,528	63,650	162,635	1,788,991	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit a finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).