

Accelerating the adoption and scale-up of electric mobility in Malaysia

Review PIF and Make a recommendation

Basic project information

GEF ID

10739

Countries

Malaysia

Project Name

Accelerating the adoption and scale-up of electric mobility in Malaysia

Agencies

UNIDO

Date received by PM

11/16/2020

Review completed by PM

3/18/2021

Program Manager

Milena Vasquez

Focal Area

Climate Change

Project Type

PIF

Part I ? Project Information

Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, the project is aligned with CCM 1-2.

3/26/2021: The Letter of Endorsement makes reference to the Ministry of Environment and Water as lead implementing partner along with MGTC. Please add the Ministry to the list of "Other Executing Partners" in Part I: Project Information. Please also revise Section 6. Coordination accordingly.

4/9/2021: Comment cleared.

Agency Response

07/04/2021

Ministry of Environment and Water has been added to list in Part 1 and coordination has been updated to clarify their role. Below is the updated text inserted in the PIF:

UNIDO, as a GEF Implementing Agency, will lead project preparation and development with participation from key Government entities and private sector stakeholders. The key ministry for the project's execution is the Ministry of Environment and Water (KASA). **The Executing Agency is Malaysian Green Technology and Climate Change Centre (MGTC). KASA will support MGTC in execution of the project by providing ministerial level support in the coordination of the project's activities across ministries and with key government stakeholders.** As the executing agency, MGTC will also coordinate the execution of project delivery partners and experts through their procurement and recruitment processes. MGTC will host the Project Management Unit (PMU) that would be led by a National Project Director and responsible for the day-to-day management. The PMU would report to the PSC and UNIDO. During the PPG phase, MGTC's capacity for hosting the PMU will be further assessed and if it is

deemed that they do not have the capacity for the required activities, the PMU will then be established within another executing partner that has the required capacity.

Presently, other ministries are envisioned to be involved with the project as follows:

1. Ministry of Transport
? Key executing partner for Output 1.1.2
2. Ministry of International Trade and Industry
? Key executing partner for output 1.1.3 and partner for 2.1
Technology innovation with electric mobility supported and financed
3. KETSA (Ministry of Energy and Natural Resources)
? Key executing partner for output 1.1.1 and partner for 2.1
Technology innovation with electric mobility supported and financed
4. KPKT (Ministry of Housing and Local Government)
? Key executing partner for output 3.1.1

These key ministries also to be part of the Steering Committee member for the project.

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: The project outputs under component 1 are worded unclearly. We recommend reformulating them so they read like outputs. See additional comments below on project's alternative scenario.

3/18/2021: Project outputs have been reformulated. Comment cleared.

3/26/2021: There is no proportionality in the co-financing contribution to PMC. Currently, while the GEF contribution to PMC is 10% of the subtotal, the co-financing contribution is only 1%. According to GEF guidelines, there should be proportionality between these two amounts. Please aim to increase the contribution of the co-financing to the PMC and/or reduce the GEF allocation to PMC so that the distribution of PMC is proportional.

4/9/2021: Comment cleared.

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Agency Response

Based on this comment and comments under the alternative scenario, wording under Table B has been reformulated for clarity in consultation with counterparts in Malaysia. Additional information is provided under the response for the alternative scenario.

07/04/2021

PMC co-financing has been reassessed, increasing co-financing proportionality to just over 10%. This new figure reflects expected contributions from KASA, MGTC, UNIDO and other partners. The totals will be further substantiated during PPG and monitored during implementation.

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: The project is targeting \$16.2 million in co-financing including \$15.8 million in investment mobilized. There is a description for how investment will be mobilized from the private sector, but additional explanation for how the other sources of investment mobilized is required. Please add for the co-financing from UNIDO and the Malaysian Green Technology Corporation.

3/18/2021: Expected co-financing from UNIDO and MGTC has been added and additional explanation for investment mobilized has been provided. Comment cleared.

Agency Response

Explanation of investment mobilization has been further elaborated in the PIF as follows:

Preliminary co-financing identified has included private sector partners supplying electric vehicles for demonstrating charging infrastructure and piloting innovative solutions to charging as well as using their sites for demonstrating technologies. Investment to be mobilized is based on pipeline investments and initial agreements with private sector (Prasarana Malaysia, Perusahaan Otomobil Nasional) and public sector sources (municipalities). This includes the use of electric vehicles (passenger vehicles and buses) and public and private land for the purpose of technology demonstration. Potential for co-financing on smart charging demonstrations had been discussed with the Malaysian Electricity Supply Industries Trust Account, alongside investments in charging infrastructure.

Financial intermediaries and institutions will be engaged under Component 1 and 2 through the "Green Technology Financing Scheme" which provides a guarantee mechanism to banks and an interest rate subsidy for green technology development. Though to date it has mostly been used for solar PV project development. This is run by the Ministry of Finance (MOF) in cooperation with the Government-owned organization MGTC and is linked with various Malaysian banks.

MGTC, KASA and UNIDO will provide in-kind co-financing in the form of staff time, office space and other administrative costs as well as grant co-financing in support of project delivery. Relevant amounts have been clarified in the PIF. Preliminary co-financing will be further developed and solidified during the PPG phase.

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion 12/18/2020: Yes, the proposed GEF financing is in line with GEF policies and guidelines.

Agency Response

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion 12/18/2020: Yes, the project is proposing \$2,945,250 from Malaysia's CCM STAR allocation. Malaysia has a CCM allocation of \$5,765,635, from which it has already programmed \$1,704,501, so it has \$4,061,134 remaining available to program.

Agency Response

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion 12/18/2020: Yes, the project is proposing \$2,945,250 from Malaysia's CCM STAR allocation. Malaysia has a CCM allocation of \$5,765,635, from which it has already programmed \$1,704,501, so it has \$4,061,134 remaining available to program.

Agency Response

The LDCF under the principle of equitable access?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

Secretariat Comment at PIF/Work Program Inclusion 12/18/2020: Yes, PPG of \$50,000 is being requested and it is within the allowable cap for an MSP.

Agency Response

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the corresponding Guidelines? (GEF/C.54/11/Rev.01)

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, targets and methodologies for Core Indicator 6 and 11 have been provided and estimate is adequate at this stage.

However, we note that start year of accounting in Table F under Indicator 6.2 is listed as 2021. Please change the anticipated start year considering the time for CEO

endorsement for this project and when the installation of equipment and replacement of ICE vehicles will take place.

3/18/2021: Year has been changed. Comment cleared.

Agency Response

Based on the considerations highlighted by GEF Secretariat, the timeframe has been amended with project activities beginning in 2022.

Project/Program taxonomy

7. Is the project/program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion 12/18/2020: Yes, the project is properly tagged.

Agency Response

Part II ? Project Justification

1. Has the project/program described the global environmental/adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Overall, the global environmental problems, root causes and barriers have been well described. Please address comments below:

- We note a typo in the last sentence of the third paragraph in this section. The projected estimated emissions from an EV fleet is **230 Mt** CO₂eq compared to 770 Mt CO₂eq in the baseline. Please change.
- Under the Malaysian context, there is reference made to EVs presently making 1% of annual sales (no citation). Please clarify how many EVs there are currently on the road and how many vehicles (of all types) are sold in a year. Please also clarify the number of available electric chargers, as well as the electricity tariff compared to gasoline prices.
- Some information is provided relating to the advantages provided to ICE vehicles. Please clarify if there are any fossil fuel subsidies in place and if there are any existing regulations for fuel economy standards and incentives for EVs.

3/18/2021: Comments above have been clarified and addressed in the PIF. Cleared.

Agency Response

- Typo in last sentence has been of third paragraph has been corrected.
- Clarification on current EV stock in Malaysia has been added along with number of available chargers and electricity tariff compared to gasoline prices. The text added is as follows:

Malaysia presently has few electric vehicles models on the market but has seen some growth in the sector. Of the 3,535,851 vehicles registered in Malaysia between 2015 and 2020, 28,681 were plug-in hybrid electric vehicles and 239 were battery electric vehicles with annual sales of EVs falling under less than 1%. Malaysian consumers have few options in terms of EV models to choose from and face higher upfront purchasing costs compared with the cost of comparative vehicles (ICE) with internal combustion engines. The relatively affordable price of gasoline in Malaysia for ICE vehicles also provides less economic incentive for consumers to shift to EVs. Illustratively, in January 2021, the price of petrol and diesel in Malaysia is approximately 1.84 and 2.08 Malaysian Ringgit (0.45 USD and 0.51 USD) respectively. There is presently no electricity tariff for transport and most of the public stations installed do not require payment for charging ? however, even without placing a fee on charging, the price of gas remains relatively affordable. Offering public charging of EVs for free has also been identified to be likely unsustainable in the long-term as there is no cost-recovery in place for the stations, especially if electric mobility and charging infrastructure expands in the country. Between 2015 and 2020, public charging stations have grown in that same period from no stations installed to 524 being installed presently. Renewable energy represents approximately 3.5% of Malaysia's electricity mix with the remainder primarily coming from natural gas and coal, meaning charging infrastructure is supported by fossil fuel sources of energy.

- There is indication that some level of subsidy on fossil fuel could be present however the level of which is not public. The existing fuel standard in Malaysia is based on Euro 4M for Petrol and Euro 2 and Euro 5 for diesel. A roadmap has been developed that includes increased use of biofuels. Beyond a lower import excise duty on electric vehicles, presently no other financial incentives specifically targeting electric vehicles are in place.
- Additionally, barriers have been reformulated for clarity and to address comments from GEF Secretariat under the alternative scenario on how the outputs are addressing barriers within Malaysian context. Response to these specific points are included in our response under the alternative scenario.

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

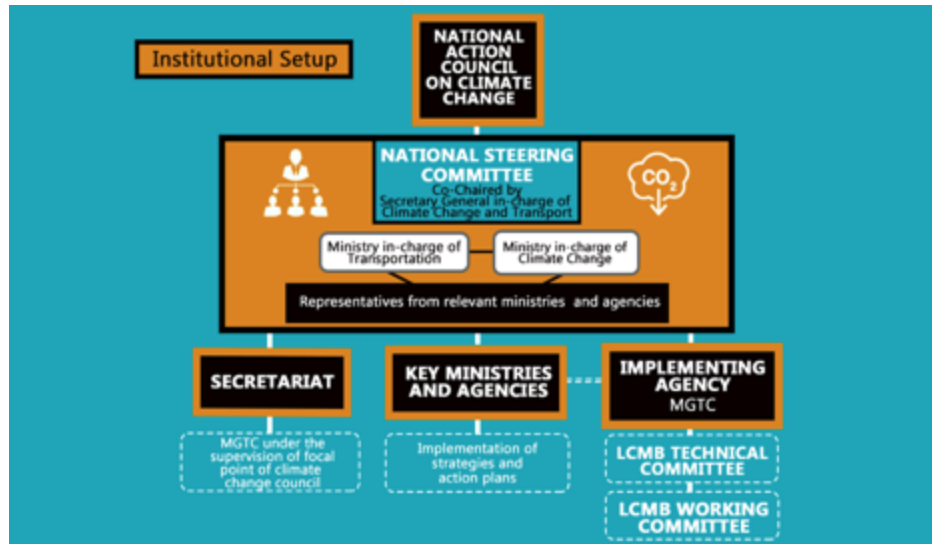
12/18/2020: Overall, a strong baseline scenario is presented. Please address comments below:

- Please provide a clear overview of the existing institutional arrangements for the relevant ministries and institutions to this project, including a description of the role of the chosen executing agency and link to the listed nation-wide policies/programmes and investment frameworks.
- Please comment on whether Malaysia is planning to present an updated NDC before COP 26 and whether it is developing a long-term strategy.
- Please clarify the context for the baseline project section regarding the Low Carbon Mobility Blueprint (LCMB). It is unclear that this was the result of a previous UNIDO project when it is introduced. Please clarify which ministries or agencies are involved/responsible for its implementation and how the "blueprint" is being implemented through policy, regulations and programs. Please clarify how the three priority areas where the "GEF funding would have an immediate impact" were chosen. Please clarify how the other aspects of the LCMB are being implemented and/or supported by other actors/sources of funding.

3/18/2021: Baseline scenario, particularly as it relates to the LCMB has been clarified. Comments cleared.

Agency Response

An institutional set-up for the LCMB has been proposed covering the four focus areas, with a National Task Force Committee on Low Carbon Mobility overseeing overall implementation and including representation from key ministries, civil society and industry. This includes the Ministry of Environment and Water (MEWA), Ministry of Transport, Ministry of Energy and Natural Resources (KeTSA), Ministry of Finance (MOF) and the Ministry of International Trade and Industry (MITI). Under this arrangement, MGTC acts as the secretariat and monitors progress, with different ministries responsible for the LCMB's implementation as well as supporting with co-financing. This institutional set-up addresses a gap in coordination that was identified in the LCMB's development. This institutional set-up addresses a gap in coordination that was identified in the LCMB's development.



As secretariat of the LCMB, the MGTC is well-positioned as the executing agency for ensuring that this project's outputs and activities align and compliment with projects supporting the LCMB's implementation. MGTC will coordinate execution of the project's components and report to a project steering committee comprised of key stakeholders identified during the PIFs development and outlined under the coordination section of the PIF. Coordination is also required between this project, the LCMB including the National Transport Policy (NTP 2030), National Policy on Climate Change (2009), Green Technology Master Plan (GTMP) 2019, the National Physical Plan 3 (NPP 3) and the National Automotive Policy (2020). Coordination between the project and these policies implementation is made possible through the inclusion of the appropriate line Ministry for each policy. For example, the Ministry of International Trade and Industry is the lead ministry for the National Automotive Policy 2020, which is relevant for both the LCMB and this project, and supports the implementation of the LCMB and is also a member of the project's steering committee. The MGTC is also well positioned for connecting the project with financial intermediaries. The aforementioned "Green Technology Financing Scheme" is run by the Ministry of Finance in cooperation with the MGTC and is linked with various Malaysian banks. The Green Technology Financing Scheme provides a guarantee mechanism to banks and an interest rate subsidy for green technology development though to date it has mostly been used for solar PV project development.

- An NDC Roadmap is being developed with sectoral targets and strategies with a targeted completion for the end of 2021. EVs will be included under the transport section of the strategy.
- This project specifically builds on the nearly finished "Low Carbon Mobility Blueprint (LCMB)", developed by MGTC in consultations with key stakeholders and support of UNIDO under the GEF-5 project, "Energy Efficient and Low Carbon

Transport in Malaysia?. The GEF-5 project and the LCMB have a larger scope than the proposed project in that they apply the avoid-shift-improve strategy to sustainable transport and frames its research, consultations and interventions around this approach with electric mobility identified as one of four focus areas. The outputs of the LCMB are organized into four focus areas focused on addressing GHG emissions and energy reduction with each having a set of strategies. This project's scope is specific to advancing Focus Area 2: GHG Emission & Energy Reduction via Electric Vehicle Adoption, on the vehicle electrification for car, bus and motorcycle. GEF funding and technical assistance is necessary to enable advancement of the LCMB, specifically as it relates to the adoption of electric mobility. The three specific priority areas where GEF funding would have an immediate impact based on the need for technical assistance and their alignment with GEF-7 funding priorities for electric mobility. This project also includes consideration for looking at sustainable battery use which was also identified as a priority during consultation meetings.

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: A better understanding of the context of the LCMB and how this project fits to address identified priorities will improve the understanding of the proposed alternative scenario. Overall the scope of the different outputs seems to cover a lot of different areas and the project requires some streamlining and a more coordinated approach. In addition, please address the below comments:

Component 1 - Overall, we found the formulation of this component to be weak. It is focused on technical studies and not really on influencing policy and regulation to support the implementation of the "blueprint" cited. This component requires additional clarifications.

-Output 1.1.1. Please clarify on why this output only focused on a business model and not as well on necessary regulation and policies. Considering that it does not appear that the ministry responsible for energy and the utility have not been included in the stakeholders, this output seems to be disconnected from influencing partners. Please clarify if this output will result in just a study as its main deliverable and whether that may not be duplicative with previous efforts.

-Output 1.1.2. Please reformulate the language of this output, which is not phrased as an output. Please also clarify if the main deliverable of this would also be a study on the GHG assessment. Please clarify how this output relates to the rest of the project (it seems to be focused on assessments at city level of public transportation). Please also clarify if this output would not be duplicative from previous efforts.

-Output 1.1.3. This output also requires reformulating in the language so that it described an output.

Component 2

Output 2.1.1. Please clarify the focus on office and residential buildings. That was not specifically identified as a barrier in the previous section. Will this output work alongside any specific incentives or programs for the purchase of electric vehicles that would use these chargers? For example, the mention of government fleets seems like a potential good linkage, but e-buses and e-taxis would involve a different context (outside of offices and residential buildings). Please clarify scope.

Output 2.1.2. Please clarify how this output is different to Output 2.1.1 (or how it relates to it).

Outputs 2.1.3. and 2.1.4. There is very little detail on the scopes of these output. Please develop further.

Component 3

Output 3.1.1. The scope of the training under this component seems to be focused on e-bike and e-bus battery-swapping, but it is unclear how this was pre-determined and how it relates to the rest of the components. Please clarify.

Output 3.1.2. The name of this output and the scope do not seem to match. What curriculum is it referring to? There is mention of eco-driving training module, which has not been introduced anywhere else as a barrier or need. What drivers are these referring to? Please clarify. Is the capacity-building on assessing e-vehicles directed to decision-makers of purchasing those vehicles? Please clarify.

3/18/2021: Comments above have been clarified and relevant changes made that have strengthened the outputs. Cleared.

Agency Response

To assist in clarifying the identified priorities, we have reformulated the barriers for the Malaysian context under project description, provided additional context for the LCMB under the baseline project and reformulated the language in Table B for greater clarity. Reformulation of outputs is further clarified in this subsequent response.

In addition, please address the below comments:

Component 1: Overall, we found the formulation of this component to be weak. It is focused on technical studies and not really on influencing policy and regulation to support the implementation of the "blueprint" cited. This component requires additional clarifications.

We have reformulated outputs and descriptions under these components to clarify how they influence policy and regulation.

Output 1.1.1: Please clarify on why this output only focused on a business model and not as well on necessary regulation and policies. Considering that it does not appear that the ministry responsible for energy and the utility have not been included in the stakeholders, this output seems to be disconnected from influencing partners. Please clarify if this output will result in just a study as its main deliverable and whether.

The relatively newly formed Ministry of Energy and Natural Resources has been included in its current form as has its predecessor (further clarified under our response in the stakeholder section). The Economic Planning Unit responsible for developing a new National Energy Policy has also been included in consultations. For clarity, the output has been reformulated. Implementation guidelines and standards for smart charging will be developed based on simulation analysis of its impact on the grid. This will help support the development of sustainable business models for charging infrastructure moving forward.

Section and output have been reformulated as follows:

1.1.1 Implementation guidelines and standards for smart charging to maximize renewable energy for charging and harmonization of electric vehicle supply equipment

A barrier to the adoption of policy on smart charging is a lack of understanding on the impact it will have on the grid, as well as a lack of understanding on what regulatory environment is necessary to make smart charging attractive to the private sector for investment. Simulation analysis includes assessment on impacts of smart charging on the electricity grid (generation, transmission, and distribution) and assessment of GHG emissions and socio-economic impacts. It will also assess the implications for harmonization of electric vehicle supply equipment for passenger vehicles, bus and motorcycle. This output will include development of business model and investigates the complementarity potential between variable renewable energy sources and EV, adopting smart charging approaches.

Output 1.1.2: Please reformulate the language of this output, which is not phrased as an output. Please also clarify if the main deliverable of this would be a study on the GHG assessment. Please clarify how this output relates to the rest of the project (it seems to be focused on assessments at the city level of public transportation). Please also clarify if this output would not be duplicative from previous efforts.

The existing Land Public Transport Master Plan and Rail Freight Masterplan do not include provisions for transitioning to electric drive technologies. The main deliverable would be the enhancement of existing policies based on modelling and scanning of different electric drive technology options which would include a GHG assessment to support the policies amendment.

Section and output have been reformulated as follows:

1.1.2 Public transport and freight master plan enhanced based on modelling and scanning of electric drive technology options

This output will assess the investments involved and policies necessary to shift from diesel-based transport of freight (either trucks or trains) to electric rail transport ? including the costs and benefits of such a shift, an assessment of GHG emissions, environmental pollutants and socio-economic impacts. This will also include modelling of the investments involved, policies and regulatory necessary to shift of passenger traffic in major cities like Kuala Lumpur to more sustainable modes of transport (from cars to public transport, walking, bicycles, and e-vehicles). The various technologies will be evaluated with an appropriate discount rate to find the financial rates of return on investments, the level of financial and non-financial incentives necessary, and the non-financial benefits.

Output 1.1.3: This output also requires reformulating in the language so that it describes an output.

Output has been reformulated and description amended for clarity.

Section and output have been reformulated as follows:

1.1.3 Development of electric vehicle and sustainable battery ecosystem and value chain roadmap

On the supply side, policy, investment and capacity building is required local auto manufacturing to transition to EV development. This will involve establishment of environmentally sustainable transport network in EV ecosystem and value chain with OEM, regulatory, component suppliers, project owners committed on game changer implementation towards development of entire value chain ecosystem around electric vehicles, building off of the work to charging stations and including the various steps towards value added product development of e-vehicles and their component parts in Malaysia. Electric buses and motorcycles have been preliminarily identified as an area where Malaysia could develop its value chain further. The results will include an EV Industry Roadmap for Malaysia. This output will also explore requirements of Energy Efficient vehicle labelling system (fuel consumption and CO2 emissions, database input for Corporate Average Fuel Economy determination, EEV standard development and awareness programme. Regulations including the amendment of Environmental Quality Act 1974 will be adopted describing the requirements of this scheme. This will include the adoption of specific standards, potentially pricing support for low-emission (EV) vehicles. This emissions guideline will be based on verification testing procedure as per UN R101 or Road Transport Act 1987. This output will also consider policy and regulations required for the safe recycling and disposal of electric vehicle batteries.

Component 2

Output 2.1.1 Please clarify the focus on office and residential buildings. That was not specifically identified as a barrier in the previous section. Will this output work alongside any specific incentives or programs for the purchase of electric vehicles that would use these chargers? For example, the mention of government fleets seems like a potential good linkage, but e-buses and e-taxis would involve a different context (outside of offices and residential buildings). Please clarify scope.

Output 2.1.2: Please clarify how this output is different to Output 2.1.1 (or how it relates to it)

As per these two comments, Output 2.1.1 and 2.1.2 have been merged and reformulated into a single output looking at smart-charging for government fleets, e-buses and e-taxis. This would be connected with the government's plans to procure Battery Electric Vehicle and be piloted at government office buildings. Section and output have been reformulated as follows:

2.1.1 Development of business models and deployment of renewable energy based smart charging

This will involve the implementation of a number of smart-charging trials for electric vehicles linked to renewable energy such as solar PV ? wherein it is investigated how to best match supply and demand of the electricity system to minimize system costs and GHG emissions. This would include distributed solar photovoltaics for electric vehicle charging and a controller to be developed to analyse the impact of an electric vehicles PV integrated system. The system would look at grid storage batteries accepting electricity from the solar PV and stored in the storage battery during the daytime and recharge the EV from the battery storage during night time. This could potentially also include developing Vehicle-to-Grid capacity, wherein the vehicles serve as a battery for grid stabilization (taking off power during low demand times and supply during peak times). This will also include an impact assessment for government fleets, e-buses and e-taxis and linked to government support schemes.

Output 2.1.3 and 2.1.4: There is very little detail on the scope of these outputs. Please develop further.

These outputs have been renumbered Output 2.1.2 and 2.1.3. Additional information has been provided as follows:

2.1.2 Demonstration of EV battery repurposing and recycling

In connection with output 1.1.3, this output will involve a demonstration and support for the re-use of EV batteries, for example as batteries for PV electricity production which could be then used for later EV charging or feed into the grid during peak demand times. Linkages may potentially exist with 2.1.1 however this output also looks beyond reuse

but will also link with the new Advance Automotive Treatment Facility to showcase options for EV battery recycling.

2.1.3 Development of business models and deployment of electric vehicle battery swapping technology integrated with renewable energy.

In connection with output 1.1.3, business models that apply battery swapping technologies will be developed in support of decreasing existing upfront costs of EV purchasing. E-motorcycles have been preliminarily identified as a potential vehicle type to conduct a pilot. The demonstration will also connect with policy and regulations looking to address battery management through the value chain.

Output 3.1.1. The scope of the training under this component seems to be focused on e-bike and e-bus battery-swapping, but it is unclear how this was pre-determined and how it relates to the rest of the components. Please clarify.

Output 3.1.2. The name of this output and the scope do not seem to match. What curriculum is it referring to? There is mention of eco-driving training module, which has not been introduced anywhere else as a barrier or need. What drivers are these referring to? Please clarify. Is the capacity-building on assessing e-vehicles directed to decision-makers of purchasing those vehicles? Please clarify.

This output connects with outputs 1.1.1 and 1.1.2 and will include capacity building for municipal governments and the private sectors on means for electrifying public and private fleets, installing charging infrastructure supported by renewable energy sources and the sustainable use of batteries. It will also support agencies to establish standard operating procedures (and if needed policies) for reporting, and verification of impacts of their sustainable transport / electric vehicle support programmes for monitoring progress. This output will also involve the development of an eco-driving training module for passenger vehicles, government and public fleet and logistics operators to understand how to reduce their fuel consumption while driving, how to assess whether E-vehicles or other modes of transport are better for their circumstances, etc.

These two outputs have been reformulated and reorganized for clarity as follows:

3.1.1 Targeted training for municipal governments and private sector on electrifying fleets, charging infrastructure and sustainable use of batteries

This output connects with outputs 1.1.1 and 1.1.2 and will include capacity building for municipal governments and the private sectors on means for electrifying public and private fleets, installing charging infrastructure supported by renewable energy sources and the sustainable use of batteries. It will also support agencies to establish

standard operating procedures (and if needed policies) for reporting, and verification of impacts of their sustainable transport / electric vehicle support programmes for monitoring progress. This output will also involve the development of an eco-driving training module for fleet managers and drivers to understand how to reduce their fuel consumption while driving, how to assess whether E-vehicles or other modes of transport are better for their circumstances, etc.

3.1.2 Targeted training and entrepreneur programme supporting development of electric vehicle and sustainable battery ecosystem and value chain with a focus on women participation

This outputs connects with output 1.1.3, complimenting it by developing training programmes for entrepreneurs and SMEs in support of local development of electric mobility software, manufacturing of hardware and hardware service and repair. This also includes training and workshops on smart charging and different business models for electric mobility including battery-swapping programmes. The execution of the programme would come from co-financing. The aim is to address local contractors? reliance on international manufacturers.

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, the project is well aligned of the CCM focal area strategy.

Agency Response

5. Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: This section could be strengthened based on the comments above.

3/18/2021: Section has been strengthened and provide a clearer incremental reasoning. Cleared.

Agency Response

This section has been amended based on reformulation of the outputs and for greater clarity. This includes updating the summary table.

6. Are the project/s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes.

Agency Response

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes.

Agency Response

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project's/program's intended location?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Preliminary coordinates for peninsular Malaysia have been provided. Specific locations to be determined during PPG phase.

Agency Response

Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: It appears that the Ministry responsible for energy has not been included. In addition, we note that financial institutions which can spur additional investments are missing. Please add.

3/18/2021: Additional stakeholders have been added.

3/26/2021: Please describe the stakeholder consultations that took place with civil society organizations, and private sector entities, as indicated in the Stakeholders section (#2). Please note that the GEF Policy on Stakeholder Engagement (Nov 2017) requires that at PIF stage ?Agencies provide a description of any consultations conducted during project development??

4/9/2021: Comment cleared.

Agency Response

The Ministry for Energy has been included in the proposals development, formerly as the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) and as of March 2020, now the Ministry of Energy and Natural Resources or Kementerian Tenaga dan Sumber Asli (KeTSA). The Ministry's name has been updated in stakeholder table to fully reflect this change.

The Ministry of Finance (MOF) and financial institutions have also been added under the stakeholder section as project partners.

Financial institutions engagement is critical to supporting the upscaling of the project activities and long-term adoption of electric mobility in the country. Institutions already engaged in green finance will play a role in extending support to EV adoption.

Financial intermediaries and institutions will be engaged under Component 1 and 2 through the 'Green Technology Financing Scheme' which provides a guarantee mechanism to banks and an interest rate subsidy for green technology development – though to date it has mostly been used for solar PV project development. This is run by the Ministry of Finance in cooperation with the Government-owned organization MGTC – and is linked with various Malaysian banks.

07/04/2021

A series of consultations were held with civil society organizations as well as the private sector through the course of the PIF's development. With respect to CSOs, their input was sought during a workshop held on 2nd July 2019. A list of key CSOs is provided, followed by a complete list of workshop attendees, including the private sector (PROTON). Finally, a list of additional meetings with partners is presented that also includes additional follow-up with Proton.

a. Civil society organizations included in workshop on 2nd July 2019

- i. Transportation Science Society of Malaysia (TSSM)
- ii. Electric Vehicle Association of Malaysia (EVAM)
- iii. Centre for Environment Technology & Development (CETDEM)
- iv. Motorcycle and Scooter Assembler and Distributors of Malaysia (MASAAM)

b. Summary of PIF Workshop Attendees (Stakeholders) – 2 July 2019

1. Ministry of Energy, Science, Technology, Environment and Climate Change
2. Ministry of Transport
3. Ministry of Energy and Natural Resource
4. Ministry of Economic Affairs
5. Ministry of International Trade and Industry
6. Ministry of Housing and Local Government
7. Department of Environment (DOE)
8. Sustainable Energy Development Authority Malaysia (SEDA)
9. Energy Commission (ST)
10. Land Public Transport Agency (APAD)

11. PLANMalaysia
12. Single Buyer
13. Malaysia Automotive Robotics and IoT Institute (MARii)
14. Malaysian Industry-Government Group for High Technology (MIGHT)
15. Proton Holdings Berhad (Proton)
16. Perusahaan Otomobil Kedua Sendirian Berhad (Perodua)
17. Dewan Bandaraya Kuala Lumpur (DBKL)
18. Majlis Bandaraya Petaling Jaya (MBPJ)
19. Cyberview Sdn. Bhd.
20. Iskandar Regional Development Authority (IRDA)
21. Petronas Dagangan Berhad
22. Gas Malaysia Berhad
23. PRASARANA Malaysia Berhad
24. Rapid Bus Sdn. Bhd.
25. Bus Rapid Transit Sunway
26. Mass Rapid Transit Corporation Sdn. Bhd.
27. Express Rail Link Sdn. Bhd.
28. Malaysia Airports Holdings Berhad
29. Tenaga Nasional Berhad Research Sdn. Bhd.
30. Tenaga Nasional Berhad Energy Services
31. Transportation Science Society of Malaysia (TSSM)
32. Electric Vehicle Association of Malaysia (EVAM)
33. Federation of Malaysian Freight Forwarders
34. Centre for Environment Technology & Development (CETDEM)
35. Malaysia Association of Natural Gas Vehicle (NGV) Installer
36. Malaysian Gas Association
37. Motorcycle and Scooter Assembler and Distributors of Malaysia (MASAAM)
38. Neuto Group
39. Voltron
40. SIRIM
41. PUSPAKOM Sdn. Bhd.

c. Official engagement with relation to the PIF development.

Date	Event	Description
26 June 2019	Consultation meeting with Ministry of Transport (MOT)	Concept note presented to Deputy Secretary General (Policy) of M Syed Nassir Syed Ahmed
2 July 2019	Stakeholders? consultation workshop	Workshop attended by 70 pax from policy makers, industry, research and NGOs
3 July 2019	Series of Stakeholders? consultative meetings	Post workshop direct engagement with relevant, key stakeholders 1. Proton
4 July 2019		Post workshop direct engagement with relevant, key stakeholders 1. MOT 2. Ministry of Energy, Science, Technology, Environment and Change (MESTECC) 3. Energy Commission (ST)
15 November 2019	Consultation meeting	Chaired by MOT with potential implementing agencies 1. Malaysia Automotive Robotics and IoT Institute (MARii) 2. Land Public Transport Agency (APAD)

Gender Equality and Women's Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Preliminary gender context is provided, during PPG a gender analysis will be carried out and an action plan developed. Please note that while outside expertise on gender aspects regarding the purchase of electric vehicles, we expect the gender analysis and action plan to be specific to the Malaysian context.

3/18/2021: Additional information on the Malaysian context has been provided and project will carry out gender analysis and develop an action plan during PPG. Cleared.

Agency Response

As indicated, we will complete a gender analysis and action plan during PPG. To enhance this section, we have added additional preliminary information on the Malaysian context to this section as follows:

Status of women and gender equality in Malaysia

Malaysia ranked 104th globally in Gender Gap Index 2020. Within East Asia and the Pacific, Malaysia was at position 13. The MGGI identifies the gap between women and men across four sub-indices encompassing economic participation and opportunity, educational attainment, health and survival, and political empowerment. A score of 1.0 (100%) indicates that equality between women and men has been achieved.

A study of the World Bank found that in Malaysia the most relevant constraint for women's labour market access is the solidification of social inequality due to an absence of support structures and empowerment programs. In addition, it documents that disparities between rural and urban living are an important driver of constraint to women's labour access and highlights that two groups of women, namely women living in public low-cost housings and single mothers, face particularly significant hurdles in accessing the labour market. Instead, they are frequently stuck in casual work or as operators of microbusinesses.

According to the Malaysian Journal of Economic Studies "Compared to patterns in East and South Asia, Malay family structures do not follow the typical patriarchal patterns of

patrilineal descent, patrilocal residence of newly married couples, and preference for male children. Empirical research, including ethnographic studies of gender roles in rural villages and demographic surveys, shows that women were often economically active in agricultural production and trade, and that men occasionally participated in domestic roles.?

Women in Malaysia account for 38% of the workforce, compared to 37% average in Asia-Pacific. They also contribute about 32% to Malaysia's GDP, compared to 36% in Asia-Pacific.

According to S&P ?when looking at the share of female C-suite executives at energy companies globally, Malaysia with 20 per cent of its leadership made up of women is second only to the Philippines in the S&P Global BMI Energy (Sector) Index. In addition, Malaysia outperformed the regional average in the Asia-Pacific region, achieving roughly 23 per cent of women board members and senior managers at energy companies. The country ranks above a majority of the global developed markets, including Australia, the United Kingdom, the United States and Japan. Looking across the region, others that significantly outperformed the regional average include the Philippines, Thailand and Hong Kong. In Malaysia, one of the key priorities of the government's 11th Malaysia Plan is to improve the female labour participation rate by five percentage points to 59 per cent by 2020.?

Along with building a more equitable workforce, bringing women's participation in the workforce closer to parity would have economic benefits for Malaysia.

Active organisations include:

- Malaysia Women in Energy (MyWiE)
- 30% Club Malaysia, a business group that campaigns for more female directors on company boards, has helped advance women in directorships and leadership positions and is on course to achieve 30% women on corporate boards by 2020.

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, private sector will be a key partner in this project as a key source of co-financing. Please add information relating to financial intermediaries or institutions that may be involved per comment above on stakeholders.

3/18/2021: Information on how financial institutions will be engaged have been added. Cleared.

Agency Response

Financial intermediaries and institutions will also be engaged through the 'Green Technology Financing Scheme' which provides a guarantee mechanism to banks and an interest rate subsidy for green technology development ? though to date it has mostly been used for solar PV project development. This is run by the Ministry of Finance in cooperation with the Government-owned organization MGTC ? and is linked with various Malaysian banks.

Risks to Achieving Project Objectives

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Preliminary assessment of risks and response measures have been provided, including as they relate to the COVID pandemic and climate risks. Please address comments below:

- Regarding the COVID risk assessment, please provide context specific information. For example, regarding the reduction in use of public transportation--is there evidence of that being the case in Malaysia? Are there restrictions in movement of people and goods in place? Did COVID have any impact on the project formulation phase and how was this addressed?

- Please also add a section (it can be here or under Benefits) on how the project has identified potential opportunities to mitigate impacts (if any) created by COVID-19 to deliver GEBs and/or climate adaptation and resilience benefits and contribute toward green recovery and building back better. The cited National Economic Recovery Plan in this section should be included in the baseline scenario--how will this project address this added barrier of incentives towards fossil fuel powered vehicles? Will there be an opportunity by the project to change this in favor of a green recovery?

- A more in depth climate risk assessment will be carried out during PPG phase and will inform the project development. However, at this stage additional information regarding the potential impact of the climate risks outlined on the project outputs and objectives beyond the potential infrastructure impacts should be provided (for example, solar PV output, energy demand changes). In addition, please comment on how the project might reduce vulnerabilities to climate change. Overall, please make sure to address the following questions from STAP's guidance on climate-risk screening: i. Has the sensitivity to climate change, and its impacts, been assessed? ii. How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? iii. Have resilience practices and

measures to address projected climate change and its impacts been considered? How will these be dealt with? iv. What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?

3/18/2021: COVID and climate risks assessments have been provided. Cleared.

Agency Response

The National Economic Recovery Plan has been added to the baseline scenario. This project will explore during PPG with key government ministries already included in the project's institutional arrangement on how to connect the project directly with subsequent recovery plans.

Additional background on COVID-19's impact in Malaysia has been added as has additional information on climate risks related to the project as follows:

In response to the first wave of COVID-19 in Malaysia, the government put in place a movement control order (MCO) which limited mobility between regions within the country and may have contributed to consumers not purchasing vehicles, as many were staying home. Throughout the course of the pandemic, the government has reintroduced the MCO with varying restrictions based on the severity of the level of cases within a region, also contributing to fewer individuals traveling to work and within regions.

The impacts can be further summarized as follows:

1. Reduction in total car sales volume. Compared to 2019, 2020 car sales volume decreased by almost 20%.
2. In term of behaviour, personal transportation need has been significantly reduced due to shift to Work from Home option.
3. As fuel price globally declined, so has the fuel price locally. Despite that, it is being observed that the travelling has been significantly reduced, presumably also reducing GHG emissions from the transportation sector. However, no hard data is being collected.
4. Delivery services however are on the rise, resulted from the incremental of e-commerce transaction, home delivery services and also food delivery by motorcycle. This in return is helping the economy at great level especially on allowing small businesses to keep the operation running. Many new delivery company and digital platform had appeared. The delivery services operators mainly coming from unemployed and job-lost category. This open up opportunity to address electric mobility to this segment while providing initiative that reaching to the lower income population. (This is also the basis to push for the e-motorcycle segment, which now going towards the battery swapping system).

5. For the light-goods delivery category from e-commerce, the vehicle choices are motorcycle, car (small %), van and small lorry. An attempt has been made in the past on looking for e-Van, however the effort was not successful. There are lacking of willing supplier on this segment. As such, effort is being put onto Complete Knock Down of the van in Malaysia. Sources from China are mostly Left-Hand Drive, hence there will be engineering works and cost involves to have it on Right-Hand Drive version. Other alternatives are being sought as well. It worth noting that Malaysia do not allow non-UNECE compliance vehicle such tuk-tuk or Jeepney onto Malaysian road.

It is foreseeable that as conditions surrounding the pandemic improve, purchase of ICE vehicles and general transport usage could return to pre-pandemic levels once restrictions on movement are lifted, again contributing to GHGs in the transportation sector in line with pre-pandemic levels. To mitigate ongoing risks, the project will create linkages with international and national green recovery packages to build back the market towards electric mobility. To date and of relevance, Malaysia has released a suite of economic recovery measures, including the National Economic Recovery Plan which allocated 8.4 billion USD towards 'empowering people?', 'propelling business?' and 'stimulating the economy?'. This included a tax incentive for the purchase of passenger cars to stimulate the automotive sector and provide financial relief to car buyers. This includes sales tax exemption on the purchase or importation of passenger cars from June to December 2020 with a 100% sales tax exemption on locally assembled cars and 50% tax exemption on imported cars ? though these provisions do not specifically target electric vehicles.

The project's policy and capacity building component of this project apply to the entirety of the country while the technology demonstration sites have been yet to be selected. People and infrastructure along the region's coastlines have exposure to hazards such as flooding and storms that could potentially intensify during the course of the project and its outcomes lifetime. However, these risks will be managed by completing a climate risk assessment during PPG and incorporating its findings into the design of the project. Specifically, the project will mitigate any potential risk by selecting appropriate project sites that have minimal exposure to the identified hazards. With these measures in place, and given the unlikelihood that the project would be negatively impacted by the above risks, the project's climate change risk and sensitivity has been assessed as low. A summary of climate risks and mitigation measures by output is summarized further in the table below.

Output	Climate risks (2020-2050)	Mitigation measures
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<p>1.1.1 Implementation guidelines and standards for smart charging to maximize renewable energy for charging and harmonization of electric vehicle supply equipment</p> <p>1.1.2 Public transport and freight master plan enhanced based on modelling and scanning of electric drive technology options</p> <p>1.1.3 Development of electric vehicle and sustainable battery ecosystem and value chain roadmap</p>	<ul style="list-style-type: none"> - Charging infrastructure and supporting renewable energy as a result of policy measures faces increased exposure to hazards - Energy demand increases beyond current projected needs - Electric vehicle and battery value chain faces increased risks and costs to disruptions along supply chain as a result of increased hazards locally and globally 	<ul style="list-style-type: none"> - Climate risks are integrated into policy measures for smart charging and development of electric vehicle and sustainable battery ecosystem and value chain roadmap - Institutional capacity strengthened on addressing climate risks and knowledge of resilience enhancement measures.
<p>2.1.1 Development of business models and deployment of renewable energy based smart charging</p> <p>2.1.2 Demonstration of EV battery repurposing and recycling</p> <p>2.1.3 Development of business models and deployment of electric vehicle battery swapping technology integrated with renewable energy</p>	<ul style="list-style-type: none"> - Infrastructure and technologies installed and demonstrated are exposed increasingly intense hazards such as flooding and storms 	<ul style="list-style-type: none"> - Comprehensive risk assessment completed during PPG that ensures appropriate sites are selected that have minimal exposure to identified hazards -
<p>3.1.1 Targeted training for municipal governments and private sector on electrifying fleets, charging infrastructure and sustainable use of batteries</p> <p>3.1.2 Training / workshops supporting development of electric vehicle and sustainable battery ecosystem and value chain with a focus on women participation</p> <p>3.1.3 Knowledge exchange and scale-up through participation in regional and international platforms</p>	<ul style="list-style-type: none"> - Recipient of training programmes are not aware of climate risks related to fleet deployment, charging infrastructure and sustainable batteries contributing to these factors not being considered by local policy makers and entrepreneurs in measures taken during this time, increasing exposure to hazards 	<ul style="list-style-type: none"> - Climate risk assessments related to fleet deployment, charging infrastructure and sustainable use of batteries is integrated into training programmes as well as principles of 'Build back better' as part of COVID-19 green recoveries - Project stakeholders engage with regional and international platform to facilitate knowledge exchange on best practices for addressing climate risks related to electric mobility

Coordination

Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Institutional arrangements are well described: the executing agency will be the Malaysian Green Technology and Climate Change Centre.

The project will coordinate in particular with the Global E-mobility program. Please ensure consultations on this coordination take place during PPG phase. We note there were no descriptions of other projects or initiatives from other sources of funding that might be relevant. Please comment.

3/18/2021: Additional initiatives have been added. Comment cleared.

Agency Response

In addition to the national initiatives indicated under the baseline scenario section, the project will coordinate with other GEF funded initiatives as well as other internationally funded initiatives such as the below KOICA funded initiatives. Additional initiatives will be added through consultations with stakeholders through PPG.

Text has been added as follows:

? The UNIDO/KOICA project ?Supporting Southeast Asia countries to cope with climate change through policy consultation and capacity building in the area of renewable energy and energy efficiency? (ID 200041).

This project aims to support Malaysia?s and Thailand?s government and private sector in enhancing their capacity to reduce greenhouse gas emissions and achieve the sustainable development. The project will implement policies and strategies in renewable energy and energy efficiency; benchmark the strategies and experiences of advanced economies (the Republic of Korea); and develop policy recommendations and pilot project planning. The production of a White Paper by a team of selected Government Officers in target countries will contribute to improved policy implementation in Malaysia and Thailand, increase the ratio of renewable energy sources and enhance energy efficiency.

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country?s national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, the project is consistent with national priorities. We note that the iNDC is considered as the First NDC.

Agency Response

Knowledge Management

Is the proposed ?knowledge management (KM) approach? in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project?s/program?s overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes.

Agency Response

Environmental and Social Safeguard (ESS)

Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: The Environmental and Social Safeguard screening was not found in the documents uploaded. Please add.

3/18/2021: ESS has been uploaded. Cleared.

Agency Response ESS has been uploaded.

Part III ? Country Endorsements

Has the project/program been endorsed by the country?s GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Yes, Dr. K Nagulendran endorsed the project.

Agency Response

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

N/A

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

12/18/2020: Please address comments.

3/26/2021: Please address three remaining comments.

4/9/2021: All comments have been addressed. PM recommends technical clearance.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

Review Dates

PIF Review

Agency Response

	PIF Review	Agency Response
First Review	12/18/2020	
Additional Review (as necessary)	3/18/2021	
Additional Review (as necessary)	3/26/2021	
Additional Review (as necessary)	4/9/2021	
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval