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Government of the Philippines

Mid-Term Review of UNDP/GEF Project: Promotion of Low Carbon Urban Transport Systems in the Philippines (Philippines LCUTS Project)

(GEF Project ID: 5717; UNDP PIMS ID: 5304)

Final Report

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SYNOPSIS

Title of UNDP supported GEF financed project: Promotion of Low Carbon Urban Transport Systems in the Philippines (Philippines LCUTS Project)

UNDP Project ID: PIMS 5304

GEF Project ID: 5717

Evaluation time frame: December 2018 to November 2020

CEO endorsement date: 16 November 2017

Project implementation start date: 17 November 2017

Project operational closure: 16 November 2021

Date of evaluation report: 31 December 2020

Region and Countries included in the project: The Philippines

GEF Focal Area Objective: Climate Change Focal Area Objective #4 (for GEF-5): Promote energy efficient, low-carbon transport and urban systems

Implementing partner and other strategic partners: Department of Transportation

Mid-Term Review team members: Mr. Roland Wong, International MTR Consultant
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Acknowledgements:

The Mid-Term Reviewers wish to acknowledge with gratitude the time and effort expended by all Project participants and stakeholders during the course of the LCUTS Mid-Term Review. In particular, we wish to thank UNDP Philippines, the Project Management Unit of the LCUTS Project, and other key Project stakeholders (both from Government agencies and the private sector) for making the efforts to recall details of their time while on the project. In particular, we wish to thank Ms. Floradema Eleazar, Ms. Gwyneth Anne Palmos and Ms. Marian Valera Co of UNDP Philippines and to Mr. Mario Tercero, Ms. Karis Vehnel Fonte, Mr. Paul Villarico, Mr. J. Mikhail Nancino, Ms. Jennifer Sabianan, Ms. Melinda Gabuya and Mr. Mark Tecderas of the PMU. In addition, there were numerous Government stakeholders including Mr. Steve Pastor and Ms. Maria Sheila Napalang of DOTr, Mr. Patrick Aquino of DOE and the numerous public and private stakeholders for being generous with their time to provide their passionate opinions on the potential impact of this Project. We sincerely hope that this report on urban transport contributes towards a greener and lower carbon future for the Philippines.

EXECUTIVE SUMMARY

This report summarizes the findings of the Midterm Review conducted via virtual meetings between 16 November and 4 December 2020 for the UNDP-GEF Project: “*Promotion of Low Carbon Urban Transport Systems in the Philippines* (hereby referred to as the *Philippines LCUTS Project*, *LCUTS* or the *Project*) that received a US\$ 2,639,726 grant from the Global Environment Facility (GEF) in November 2017.

Project Information Table

Project Title:	<i>Promotion of Low Carbon Urban Transport Systems in the Philippines (Philippines LCUTS Project)</i>			
GEF Project ID:	5717		<u>at endorsement</u> (Million US\$)	<u>at mid-term</u> (Million US\$)
UNDP Project ID:	5304	GEF financing:	2.640	0.340
Country:	The Philippines	IA/EA own:	0.090	0.186
Region:	Asia and the Pacific	Government:	9.750	0.916
Focal Area:	Climate Change	Other:	12.600	0.000
FA Objectives, (OP/SP):	FA Objective #3 for GEF 5: Promoting investment in renewable energy technologies	Total co-financing:	22.440	1.102
Implementing Partner:	Department of Transportation (DoTr)	Total Project Cost:	25.080	1.442
Other Partners involved:	N/A	ProDoc Signature (date project began):		16 November 2017
		(Operational) Closing Date:	Proposed: 17 May 2023	Actual: 17 November 2021

Project Description

The main objective of the LCUTS Project is to “create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles) in the Philippines”. It was designed to do so by supporting:

- effective enforcement of policies and support provided for the promotion of low carbon modes of transport;
- activities towards the adoption and implementation of low carbon transport plans and programs in major cities; and
- the increase in private sector participation in the widespread deployment and commercialization of low carbon transport systems, and subsequent increase in private sector investment in low carbon transport systems.

Project Progress Summary

The LCUTS ProDoc was signed in November 2017. However, there were significant delays immediately after that date resulting in unsatisfactory progress to date. This was mainly due to:

- the loss of the first LCUTS NPD in April 2018 followed by his replacement in May 2018;
- only part-time recruitment of the PMU resulting delays to the Inception Workshop until December 2018 and only part-time staff managing LCUTS Inception phase;

- the dissolving of the Project’s counterpart agency, ESITU (within DOTr) during the first half of 2019, making counterpart management arrangements with the LCUTS Project more difficult;
- fully staffed PMU commencing 3Q of 2019 with a full-time project manager, component leads and administrative staff;
- the COVID-19 pandemic slowing down all Project activities as of March 2020.

This has resulted in little to no progress in any of the Project objective level targets (including GHG emission reductions and people employed in the low carbon transport sector). While there has been some progress in Outcome 1 with regards to low carbon transport (LCT) policies and standards, the Law on Electric Vehicles and Charging Stations will eventually emerge to facilitate the uptake of electric vehicles (EVs) and establishment of support infrastructures; however, the process leading to its enactment will only occur beyond the current end-of-project (EOP) date of 17 November 2021 (Para 37). In Outcome 2, ongoing green transport initiatives in 3 cities (Iloilo city, Baguio and Santa Rosa City) do not have a clear pathway for implementation and generating GHG emission reductions due to current obstacles, political and administrative, which may or may not get solved within the current timeframe of LCUTS (Para 42).

Moreover, delays caused by the COVID-19 pandemic have reduced demand for public transport, changing the economics of electric utility vehicles, and the suspension of all the Government of the Philippines (GoP) initiatives to modernize public utility vehicles in the Philippines. However, with public transport ridership rates having risen to 50% around the November 2020, the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP), serving as intermediary banks for the GoP, have reopened their Public Utility Vehicle Modernization Program (PUVMP) loan portfolios (as a part of Outcomes 3.1 and 3.2) for the modernization of public utility vehicles, to increase demand for EV financial assistance (Para 43 and 44). However, the Project target of US\$12.5 million in incremental EV investment by the EOP is not likely achievable by the November 2021 EOP date (Para 46).

As such, the barriers remaining to fully achieving the LCUTS targets are (Para 47):

- the ambitious design with only 11 months remaining on the LCT Project;
- an inadequate developmental pathway in LCUTS interventions that will generate GHG emission reductions towards the LCUTS target of 52,959 tCO₂;
- ongoing attempts by various LGUs to plan, design and implement LCT projects, some of whom are working with limited capacity in developing green urban transport projects;
- insufficient information on the benefits of EV operations and long-term economics that can better inform potential EV investors, cooperatives and fleet owners; and
- COVID-19 which has had the impact of reducing ridership on public transport and clouding the economics of electric vehicle operation.

Conclusions

Notwithstanding the aforementioned delays and setbacks on LCUTS since November 2017, ownership of the Project appears strong. This is indicated by a fairly active Project Board whose members are actively engaged, notably the private sector in their own EV deployment initiatives and the planning of green urban transport projects within several LGUs throughout the Philippines. There are also several technical working groups reviewing policies and incentive programs that will serve to contribute to an enabling environment for green urban development and EV deployment for public utility vehicles (Para 73). However, with the LCUTS Project current EOP date of 16 November 2021, there is less than one year remaining to achieve its important objective level target of 52,959 tCO₂ of emission reductions (over the lifetime of the technology).

Given the current status on progress and time remaining, it is highly unlikely that this objective-level target will be achieved as well as targets for other ongoing outputs and outcomes (Para 74). As such, the Project is in need of an extension using a refreshed LCUTS approach that re-focuses its efforts to generate GHG emission reductions from EVs by facilitating EV investments with DBP and other banks managing PUVMP funds to replace fossil-fueled vehicles. This achievable with 86 to 460 EVs (consisting of e-commuter buses and e-jeepneys) required to generate the 52,959 tCO₂ (lifetime) target, and provided that the Project can obtain a 30-month extension.

MTR Ratings and Achievement Summary

Measure	MTR Rating ¹	Achievement Description
Project Formulation	Conceptualization/ Design Rating: 5	Design well laid out in PRF complete with SMART indicators. The only issue has been the need to combine Outcomes 3.1 and 3.2 into one Outcome 3 (which has been done by the PMU for ease of monitoring).
	Stakeholder Participation Rating: 5	A wide spectra of stakeholders was consulted during the PPG phase consisting of DOTr, other relevant government agencies, financial institutions, EV private sector, and civil society. GoP ownership of LCUTS is strong.
Progress Towards Results	Objective Achievement Rating: 2	No progress on objective level targets since the Project has experienced a number of unfortunate circumstances (see Para 71) resulting in a loss of more than 22 months (excluding the pandemic of 2020) and only 5 months of the effective implementation.
	Outcome 1 Achievement Rating: 3	Despite ongoing work within this Outcome, the timeline is uncertain as to when these policies and plans will result in GHG emission reductions from EV deployment.
	Outcome 2 Achievement Rating: 3	Despite ongoing work with LGUs to develop green urban transport plans, the timeline and pathway to implementing these plans is not clear. In addition, many of the LGUs do not have the capacity for planning green urban transport
	Outcome 3 Achievement Rating: 2	Little if any progress despite private sector participation. Issues stem from inadequate awareness amongst transport cooperatives and private sector of the strong EV economics and performance.
Project Implementation & Adaptive Management	Implementation Approach Rating: 3	Project implementation has been affected by a number of unfortunate circumstances (see Para 71) resulting in a loss of more than 22 months (excluding the pandemic of 2020) and only 5 months of the effective implementation
	Monitoring and Evaluation Rating: 5	Project has produced annual PIRs and quarterly QPRs as well as COVID pandemic surveys, providing evidence of good monitoring and evaluation practices.
	Stakeholder Participation Rating: 5	Stakeholder participation has been strong as evidenced through MTR interviews and participation at Project Board (PB) meetings. This includes the wide spectra of stakeholders including relevant government agencies, financial institutions, private sector and civil society.
Sustainability	Sustainability Rating: 3	Moderately likely rating is mainly due to changing economics and recovery of public transport due to the pandemic. In addition, LGUs have low capacities for managing vehicle modernization under PUVMP.
Overall Project Achievement and impact	Rating: 3	Project cannot achieve its target GHG emission reduction of 52,959 tCO ₂ with the one year remaining on LCUTS. With only 5 months of effective implementation, LCUTS has not had the impact 3 years into a 4-year project

¹ Evaluation rating indices (except sustainability – see Para 70): 6=Highly Satisfactory (HS): The project has no shortcomings in the achievement of its objectives; 5=Satisfactory (S): The project has minor shortcomings in the achievement of its objectives; 4=Moderately Satisfactory (MS): The project has moderate shortcomings in the achievement of its objectives; 3=Moderately

Recommendations

Recommendation 1: Request a 30-month extension from UNDP and GEF to utilize remaining LCUTS resources of just over US\$2.0 million to achieve the targeted lifetime incremental GHG emission reduction of 52,959 tCO₂ (Para 77).

Recommendation 2: Setup an enhanced awareness and advocacy programme to strengthen outreach to potential EV investors and operational EV fleets under Output 2.2 (Para 78).

Recommendation 3: Design a data collection programme for operational EV fleets (Para 79).

Recommendation 4: Implement enhanced awareness and advocacy programme under Output 2.2 using data collected for operational EV fleets (Para 80).

Recommendation 5: Assist and facilitate the development of viable business plans for private sector and transport cooperatives as a part of Output 3.2.1 (Para 81).

Recommendation 6: Recruit a part-time international CTA to provide strategic guidance to the PMU and key LCUTS stakeholders (Para 82).

Recommendation 7: Build off experience of Recommendation 4 to improve the monitoring and evaluation of new EV fleets financed under PUVMP, and other infrastructural investments related to green e-mobility such as “green boulevards” (Para 83).

Recommendation 8: Project Results Frameworks (PRFs) should be setup in a manner that can be easily implement, monitored and evaluated by the PMU, the counterpart agency, oversight managers at UNDP, and GEF (Para 84).

Recommendation 9: Continue with delivery of Output 3.1.1, the public transport route rationalization assessment and feasibility studies that is ongoing with a number of LGUs (Para 86).

Recommendation 10: Develop standard procedures for on-road and laboratory tests of new EV technologies as a part of Output 3.1.2 (Para 87).

Recommendation 11: Develop and approve an established EV charging protocol and standardization as a part of Output 3.1.3 (Para 88).

Recommendation 12: Installed standardized solar EV charging stations in pilot areas and cities as a part of Output 3.2.2 (Para 89).

Recommendation 13: Introduce at least 10 operational and new hybrid or EVs for mass transit in pilot cities as a part of Output 3.2.3 (Para 90).

Recommendation 14: Undertake training programme to develop a sufficient number of skilled local technicians to provide maintenance for EV fleets (Para 91).

Unsatisfactory (MU): The project has significant shortcomings in the achievement of its objectives; *2=Unsatisfactory (U)* The project has major shortcomings in the achievement of its objectives; *1=Highly Unsatisfactory (HU):* The project has severe shortcomings in the achievement of its objectives.

Recommendation 15: Continue with ongoing low carbon transport policy development within Outcome 1 (Para 92).

Recommendation 16: Document the process of engaging the LGUs leading to the adoption and implementation of low carbon transport plans and programs including actual deployment of EV/hybrid public transport fleets (Para 93).

ABBREVIATIONS

Acronym	Meaning
ADB	Asian Development Bank
APR-PIR	Annual Project Report - Project Implementation Review
BIR	Bureau of Internal Revenue
CCC	Climate Change Commission
CO	UNDP Country Office
CO ₂	Carbon Dioxide
CPAP	Country Programme Action Plan
DENR	Department of Environment and Natural Resources
DILG	Department of Interior and Local Government
DOF	Department of Finance
DOE	Department of Energy
DOST-PCIERRD	Department of Science and Technology-Philippine Council for Industry, Energy and Emerging Technology Research and Development
DOTr	Department of Transportation
DTI-BOI	Department of Trade and Industry-Board of Investment
EOP	End of project
EVAP	Electric Vehicle Association of the Philippines
EVs	Electric Vehicles
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House gas
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GoP	Government of the Philippines
HLURB	Housing Land Use Regulatory Board
kWh	kilowatt hour
LCUTS	Low Carbon Urban Transport Systems
LGU	Local Government Unit
LTPRP	Local Public Transport Route Plan
LTO	Land Transportation Office
MRV	Monitoring, reporting, and verification
MTR	Midterm review
M&E	Monitoring and evaluation
NCR	National Capital Region
NCTS	National Center for Transportation Studies
NGO	Non-governmental organization
NPGA	Non Project Grant Assistance
NTP	National Transport Policy
PA	The Paris Agreement
PB	Project Board
PIMS	UNDP/GEF Project Information Management System
PIR	Project implementation report
PM	Project manager
PMU	Project Management Unit
PPG	Project Preparatory Grant (GEF)
ProDoc	Project Document
PRF	Project Results Framework

Acronym	Meaning
PUV	Public Utility Vehicle
PUVMP	Public Utility Vehicles Modernization Program
PV	Photovoltaic
SMART	Specific, Measurable, Attainable, Relevant, Time-bound
tCO ₂	Tonne of Carbon Dioxide
TE	Terminal Evaluation
TESDA	Technical Education and Skills Development Authority
TOR	Terms of Reference
UN	United Nations
UNDAF	UN Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development

1. INTRODUCTION

1. This report summarizes the findings of the Midterm Review (MTR) conducted during the 12 October-31 December 2020 period for the UNDP-supported GEF-financed Project entitled: “**Promotion of Low Carbon Urban Transport Systems in the Philippines**” (hereby referred to as the Philippines LCUTS Project, Project or LCUTS). In November 2017, this Project received a US\$ 2,638,726 grant from the Global Environmental Facility (GEF). The Project objective is to “create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles) in the Philippines”.

1.1 Purpose of the Mid-Term Review

2. In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP-supported GEF-financed projects are required to undergo an MTR at the mid-point of implementation of a project to provide a comprehensive and systematic account of the performance of an ongoing project by reviewing its design, process of implementation and achievements vis-à-vis GEF project objectives and any agreed changes during project implementation. As such, the MTR for this Project serves to:
 - assess early signs of project success or failure with the goal of identifying the necessary changes to be made to set the Project on-track to achieve its intended results;
 - strengthen the adaptive management and monitoring functions of the Project;
 - enhance the likelihood of achievement of Project and GEF objectives through analyzing Project strengths and weaknesses and suggesting measures for improvement;
 - enable informed decision-making;
 - create the basis for replication of successful Project outcomes achieved to date;
 - identify and validate proposed changes to the ProDoc to ensure achievement of all Project objectives; and
 - assess whether it is possible to achieve the objectives in the given timeframe, taking into consideration the pace at which the Project is proceeding.
3. This MTR was prepared to:
 - be undertaken independent of Project management to ensure independent quality assurance;
 - apply UNDP-GEF norms and standards for midterm reviews;
 - assess achievements of outputs and outcomes, likelihood of the sustainability of outcomes, and if the Project met the minimum M&E requirements; and
 - provide recommendations to increase the likelihood of the Project delivering all of its intended outputs and achieving intended outcomes.

1.2 Scope and Methodology

4. The scope of the MTR covers the entire UNDP-supported, GEF-financed, Department of Transportation (DoTr) implemented LCUTS Project and its components as well as the co-financed components of the Project. This MTR assesses 36 months of Project progress, achievements and implementation taking into account the status of Project activities, outputs and the resource disbursements made up to 30 November 2020. The MTR also reports on the progress against

objective, outcome, output, and impact indicators listed in the latest Project Results Framework (PRF) as provided on Appendix F as to how these outcomes and outputs will be achieved within the Project duration (up to 17 November 2021) or with a Project extension. The MTR report concludes with recommendations, as appropriate, for the key stakeholders of the Project. The MTR will be approached through the criteria of *relevance*, *effectiveness*, *efficiency*, *sustainability*, and *impact*, as defined and explained in the UNDP “Guidance for Conducting Midterm Reviews of UNDP-supported, GEF-financed Projects”, and the GEF M&E policy.

5. The methodology adopted for this MTR includes:

- Review of Project documentation (e.g. APR/PIRs, meeting minutes of Project Steering Committee) and pertinent background information;
- Interviews with key Project personnel including the current Project Manager, Project Coordinators, technical advisors, and Project developers;
- Interviews with relevant stakeholders including other government agencies and institutes and private sector entities; and
- Virtual visits to Project sites due to the COVID-19 pandemic substituted by interviews with beneficiaries.

A detailed itinerary of the Mission is shown in Appendix B. A full list of people interviewed and documents reviewed are given in Appendix C and Appendix D respectively. The MTR Team for the UNDP-GEF project was comprised of one international MTR consultant and one national MTR consultant.

6. The Project was reviewed in the context of:

- *Project strategy*: This includes an analysis of the LCUTS Project design (and Project Results Framework) as outlined in the ProDoc to identify if the strategy is effective in achieving the desired outcomes;
- *Progress towards results*: This is to include information provided from, amongst others, Project work plans, Project implementation reports (PIRs), relevant Project reports and information provided from various Project stakeholders;
- *Project implementation and adaptive management*: This would be an assessment of the quality of support to the Project from UNDP as well as the Executing Agency of the Project, the Department of Transport (DoTr). Assessment parameters would include management arrangements, work planning, finance and co-finance, Project level monitoring and evaluation systems, stakeholder engagement, reporting and communications; and
- *Sustainability*: The likely ability of an intervention to continue to deliver benefits for an extended period of time after the end-of-Project (EOP). The MTR sustainability assessment essentially sets the stage for the Terminal Evaluation during which sustainability will be rated under the four GEF categories of sustainability, namely financial, socioeconomic, institutional framework and governance, and environmental.

7. Since this assignment has coincided with the severe global travel restrictions in place due to the COVID-19 pandemic, this MTR has mainly relied on field information gathered by the National MTR Consultant based in Manila, supplemented by information from selected interviewees on LCUTS activities. With little to no physical progress achieved, the lack of field visits to Project sites cannot

be deemed to adversely affect the quality of the MTR. As a result, a limitation of this MTR would be the inability of the International MTR Consultant to have face-to-face interviews with all key stakeholders, notwithstanding the presence of the National MTR Consultant in Manila. Regardless, the MTR team has made every effort to understand the Project and present a fair and a well-balanced assessment of the Project. Any gross misrepresentation of the Project has been resolved through discussions with the Project team.

1.3 Structure of the MTR Report

8. This MTR report is presented as follows:

- An overview of LCUTS Project activities from a development context from its commencement of operations in November 2017 to the present;
- An assessment of Project strategy and design;
- An assessment of Project progress towards results;
- An assessment of Project implementation and adaptive management;
- Assessment of sustainability of Project outcomes; and
- Conclusions and recommendations.

9. This MTR report is designed to meet UNDP-GEF’s “Project-level Monitoring: Guidelines for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects” of 2014:

[http://web.undp.org/evaluation/documents/guidance/GEF/midterm/Guidance_Midterm%20Review%20 EN_2014.pdf](http://web.undp.org/evaluation/documents/guidance/GEF/midterm/Guidance_Midterm%20Review%20EN_2014.pdf)

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 Development Context

10. Metro Manila serves as an indicator of the increasing inefficiencies of urban mobility in the Philippines and the associated cost of the road transport sector’s dependence on imported fossil fuels. With Metro Manila accounting for 39% of the country’s total cars (from 2010 to 2016), the number of Land Transportation Office (LTO) registered vehicles of Metro Manila increased from 1.35 million units in 2010 to 1.70 million units in 2016, an average growth rate of 1.6% per annum². An unchecked increase in the number of operational vehicles will be a likely cause of the average travel time of a person-trip increasing from 1.17 hr in 2014 to 1.33 hr in 2030³. With total generalized transport cost per day (includes operating and time costs) being PHP 3.5 billion, this cost is forecast to increase up to PHP 5.4 billion in 2035 in the case of no governmental intervention⁴.
11. The CO₂ emissions from the road passenger transport sector within Metro Manila would increase from 13.78 million tCO₂ in 2015 up to 27.90 million tCO₂ in 2040 based in a business-as-usual (BAU) scenario. The BAU government response to these issues is the construction of more roads, skyways, and urban rail lines to reduce travel time and relieve traffic congestion, a critical component of the “Build!Build!Build” program, a comprehensive infrastructure development programme launched by the GoP in April 2017. The outcome of this programme likely leads to increased congestion.
12. The GoP also recognized other approaches to the environmental improvement of the transport sector in the Philippines. This was encapsulated in their 2012 DOTC report identifying one pathway to achieve sustainable mobility that was to initiate reduced dependency of private vehicle and to increase percentage shares of non-motorized modes or NMV (i.e., cycling and walking) and public transport modes (i.e., Jeepneys, trains, buses)⁵. This would contribute to the improvement of traffic flow, energy saving, mobile emission abatement, and social equity.
13. There have been subsequent efforts to improve the environmental performance of the transport sector including:
 - the Clean Air Act, which was signed in 1999 aims to maintain clean air that meets the National Air Quality guideline values for criteria pollutants while minimizing the possible associated impacts to the economy. With the large increases in the number of public utility vehicles (PUV), this law was forcing vehicles to comply with emissions that meet the National Air Quality guideline values for criteria pollutants while minimizing possible associated impacts to the economy. This would require all private motor vehicles and PUVs to update engines, and facilitating renewed registration permits from the LTO;
 - the Public Utility Vehicle Modernization Program (PUVMP) which was launched in 2017 that “envision[s] a restructured, modern, well-managed and environmentally sustainable transport sector where drivers and operators have stable, sufficient and dignified livelihoods while

² Philippine Statistics Authority, 2017

³ ALMEC report “Roadmap for Transport Infrastructure Development for Metro Manila and Its Surrounding Areas (Region III & Region IV-A), 2014”, available at http://www.neda.gov.ph/wp-content/uploads/2015/03/FR-MAIN-TEXT.-12149605_01.pdf

⁴ ALMEC/JICA 2019 Report on “Follow-up Survey on Roadmap for Transport Infrastructure Development for Greater Capital Region”, Para 27 available at: https://openjicareport.jica.go.jp/pdf/1000041638_03.pdf

⁵ Philippines National Implementation Plan (NIP) on Environment Improvement in the Transport Sector Low Pollution-Low Emission, 2012, available at: https://dotr.gov.ph/images/front/other_matters/nip.pdf

commuters get to their destinations quickly, safely and comfortably”⁶. This was to be achieved by:

- phasing out old PUVs that are at least 15 years old which:
 - already reached the mandatory age limit as prescribed by existing DOTr and LTFRB issuances or PUV units
 - did not pass the road worthiness test; and
 - would be replaced with safer, more comfortable and more sustainable alternatives such as which includes electric jeepney (e-jeepney), electric bus (e-bus), electric tricycle (e-trike), and their EURO-4 diesel vehicles counterparts or better;
 - inclusion of other convenience and comfort features such as priority seats for senior citizens and persons with disabilities, onboard Wi-Fi and USB ports, automated fare collection system, and authorized vehicle inspection centers;
 - compulsory involvement of local government units (LGUs) in route planning through the submission of their own Local Public Transport Plan (LPTRP) as a pre-requisite for the opening of modernized PUV franchises within their jurisdiction⁷.
14. There has been growth of electric vehicles (EVs) in the Philippines since 2010. Reports from LTO from 2010-2019 show a total of 11,950 EVs registered with 2018 with the highest registration of 4,260. As of 2019, the number of eTrikes is about 6,780, eMotorcycle is 4,260, followed by e-Utility Vehicles 595. However, there are lesser numbers of larger EVs such as 260 eCar, 38 eSUVs, 11 eTrucks and 3 eBuses. EVs are available commercially both local and imported, with the market offering a variety of EVs such as e-trikes powered with lead acid batteries and lithium ion batteries. Some EVs are classified as pure electric (battery powered), plug-in hybrid and hybrid. These numbers are still low in comparison to what the GoP envisions with the propagation of environmentally sustainable transport.
15. There are also a number past and current donor-support projects supporting EVs in the Philippines including:
- ADB’s “Philippines: Market Transformation through Introduction of Energy-Efficient Electric Vehicles Project” or E-Trike Project, implemented by Department of Energy between 2013-2019;
 - Government of Japan donation Non-Project Grant Aid (NPGA) project thru DOE in 2013 for the promotion of next generation vehicles in the Philippines and for recovery efforts after Typhoon Yolanda. The NPGA project covers a total of 85 electric vehicles (32 units hybrid sedan vehicles, 45 hybrid patrol cars, 4 units hybrid plug-in EVs and 4 units EVs) and covers performance testing of these units for research and promotional purposes;
 - USAID’s “Strengthening Urban Resilience for Growth with Equity (SURGE) Project” that supports private businesses by providing technical assistance for the preparation of business plans and feasibility studies, and linking them with private financial institutions. It included support to private investors for the development and local manufacture of e-Trikes on Boracay Island in 2015;

⁶ <https://ltfrb.gov.ph/puv-modernization-2/>

⁷ Route planning will consist of route rationalization studies to determine the appropriate mode, quantity and service characteristics of the public transport service along each corridor. This would ensure routes are “more responsive to passenger demand and ensure that the hierarchy of roads and modes of transportation are followed”.

- The ASEAN Low Carbon Energy programme (UK Prosperity Fund) supports the Philippines transition towards low carbon energy by aiding green finance flows and improving energy efficiency. Technical assistance was provided to better consider climate-transition risks in financing major projects. Ongoing activity includes the identification and selection of pilot projects to prove the feasibility of energy efficiency retrofit projects and their financing models;
- GEF 7 pipeline project “Accelerating the adoption and scale-up of electric mobility for low-carbon city development in the Philippines” that has been submitted by GoP for funding under the GEF-7 Child Concept Project with UNEP as lead agency and UNIDO as GEF agency. The lead executing partner government agencies are Department of the Interior and Local Government and Department of Energy.

2.2 Problems that the LCUTS Project Seeks to Address

16. In 2017, the LCUTS Project sought to overcome barriers to the wider use of low carbon modes of transport. These barriers include:

- Inadequate policies and programs that promote low carbon transport and its commercialization. This is particularly true for emerging technologies in the Philippines such as EVs and hybrid vehicles and aggravated by inadequate unified and strategic government framework for sustainable urban transport. The pending National Transport Policy (NTP) and regulatory frameworks to support low carbon transport were not well developed for the commercialization of low carbon transport. This would also include standards, certification, approval processes, incentive policies and action plans;
- No clear delineation of jurisdiction, mandate and responsibilities for each government agency with respect to low carbon transport (LCT), nor is there a systematic approach towards inter-agency coordination and collaboration. This occurs despite multiple government agencies being involved in the planning and delivery of urban transport services;
- Limited technical capacity and knowledge at the national regional, provincial and municipal agencies to develop and implement appropriate mix of strategic interventions for LCT planning including programmes to collect local data for performance evaluations; vehicle, fuel and infrastructure standards; and protocols to assess, evaluate and account for the impacts of LCT interventions. Clear systems for monitoring, gathering, analyzing and disseminating information on developments and progress of urban transport projects are required to develop transparency to hold agencies and officials accountable. Moreover, improved data can also enable performance-based expenditure of public funds and improve transport planning;
- Low level of interest, understanding and awareness of the multiple benefits of LCT amongst decision makers and the broader public. This would include an improved understanding of the needs of operators and passengers and the willingness of passengers to change travel behavior;
- Insufficient information on cost, performance and reliability of EVs and hybrids to provide the confidence to potential investors on their commercialization in the Philippines despite EV economic and technology advancements worldwide. This would include inadequate technology validation information, absent support infrastructure (such as integrated charging solutions), perceived range anxiety vis-à-vis the costs involved, and perceptions on reduced battery life due to overheating. In the long run, the potential EV investor should have access to information to assess the investment risk and business viability;
- Insufficient knowledge of the financial sector about emerging LCT technologies and the inadequate capacity to evaluate related investment opportunities; and

- Available financing has been more inclined to prioritizing road expansion and infrastructure development facilitating increased motorization rather sustainable and comprehensive urban transport development.

2.3 LCUTS Project Description and Strategy

17. The main objective of the LCUTS Project is to *“create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles and AGT systems) in the Philippines”*. It was designed to do so by:

- Providing effective enforcement of policies and support provided for the promotion of low carbon modes of transport;
- Facilitating the adoption and implementation of low carbon transport plans and programs in major cities;
- Facilitating an increase in private sector participation in the widespread deployment and commercialization of low carbon transport systems; and
- Facilitating the increase in private sector investment in low carbon transport systems.

2.4 LCUTS Project Implementation Arrangements

18. The LCUTS Project is implemented under a national implementation modality (NIM) with UNDP Philippines. The implementing partner of the LCUTS Project is the Department of Transportation (DOTr), alongside with other partners that includes but not limited to relevant agencies within DOTr, Department of Energy (DOE), Department of Industry and Trade (DOIT), and the Department of Science and Technology (DOST). The LCUTS Project Management Unit (PMU) is comprised of a Project Manager (PM), Component Leads, a Finance Associate (FA), an M&E Associate, and three Project Associates (PAs) who manage the day-to-day operations of LCUTS.

19. The LCUTS Project Board (PB) have an oversight progress monitoring role, provide feedback and guidance for PMU implementation, and supports the Project in achieving its overall outputs, outcomes and objective. The PB is chaired by DOTr with Board members consisting of representatives from national government agencies (DOE, DENR, DTI-BOI, DHSUD, DOST, TESDA, DILG, UP-NCTS, CCC and the Senate), the private sector (vehicle manufacturers, associations of operators, investors), financing institutions (commercial banks, DFIs, multilateral donors) as well as academia and civil society (universities, NGOs).

2.5 LCUTS Project Timing and Milestones

20. The LCUTS Project was designed as a 4-year project that commenced on 17 November 2017 scheduled to end on 17 November 2021. Progress to date has been unsatisfactory as further detailed in Section 3.2. A summary of significant events for the first 38 months of the LCUTS Project include:

- the Government of Philippines signing the LCUTS ProDoc on 16 November 2017;
- the first DoTr focal point for the Project resigned in April 2018, considerably slowing progress during the inception phase;
- DoTr issued an internal memo to fill the project manager's position in July 2018 with the MTR team only establishing this as a full-time position in 3Q of 2019;

- the Inception Workshop was conducted on 10-12 December 2018 with the participation of national government agencies, NGOs, academia and private sector;
 - the 1st Project Board Meeting was conducted on 4 February 2019 to review and refine the Project’s Inception Report and the Annual Work Plan (AWP);
 - the primary implementing unit within DOTr, the Environmentally Sustainable Initiative Transportation Unit (ESITU), was dissolved sometime between January and June 2019, primarily due to the Republic Act No. 11239 that essentially abolished the Road Board. This served as a severe blow to the LCUTS Project with the Project attempting to maintain linkages with the key focal points within the Unit and involving DOTr’s directors in orientation on finance, procurement and human resources within UNDP projects;
 - core staff joined the PMU in Q3 of 2019 including the Project Manager, component leads, and administrative staff. There were 2 component lead resignations in March 2020 who were replaced in September and October 2020;
 - progress under Outcome 1 during Q4 of 2019 to Q2 of 2020 included provision of support to domestic policymaking initiatives to the GoP to promote low carbon urban transport. This includes developing relevant standards for transport related parameters such as emissions and efficiency, and focusing on interagency coordination through drafting Executive Orders for committee under the Office of the President (as a means to coordinate all actions on developing low carbon and sustainable transport plans, programs and policies nationwide);
 - the Project has been engaged with LGUs for pilot implementation of low carbon transport plans and programs under Component 2 up to Q1 of 2020. LGUs were identified based on their rapid urbanization, existing plans and programs on sustainable mobility and low carbon urban transport systems, and demonstrated political will. Cities identified in this initial phase included the cities of Baguio, Santa Rosa, Pasig City and Iloilo City;
 - the Project has established partnerships with Technical Education and Skills Development Authority (TESDA) to develop training regulations for the electric vehicle technicians under Component 2 up to Q1 of 2020. In addition, there were discussions with national agencies and regulatory bodies and the private sector for similar partnerships with the Project;
 - there were efforts to make progress under Component 3 up to Q2 of 2020, notwithstanding the constraints caused by the COVID-19 pandemic including:
 - preparations for a series of business development workshops and webinars in partnership with the Land Bank of the Philippines (LBP), and the Development Bank of the Philippines (DBP); and
 - efforts to support the recovery and resiliency of the Philippines EV sector that includes drafting a proposal for economic stimulus packages for the EV sector, monitoring partnerships with transport network companies to generate jobs, and online promotion of sustainable transport.
21. In summary, LCUTS did not effectively commence until Q3 of 2019, a time when most of the PMU positions were staffed, and effective outreach to all stakeholders was established. With the loss of 6 weeks in 2017, all of 2018 and more than one half of 2019, the LCUTS Project has only had just over 7 months to implement its mandate, if the constraints posed by the COVID-19 pandemic are included. At the time of writing this MTR report, there is just under one year of time remaining to complete all LCUTS activities. Details of the challenges that remain to achieve all LCUTS targets and other progress-related issues are provided in Section 3.2 of this report.

2.6 Main Stakeholders

22. There are many stakeholders for the LCUTS Project with the main stakeholder being the Implementing Partner, the Department of Transportation (DOTr), who are responsible for the maintenance and expansion of viable, efficient, and dependable transportation systems as effective instruments for national recovery and economic progress. To achieve the specific LCUTS Project objective of “create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles and AGT systems) in the Philippines”, the LCUTS Project needed to engage a wide range of stakeholders in the Philippines (as specified in the ProDoc) and summarized in the following Paras.

23. Government stakeholders include:

- *Department of Science and Technology (DOST)*, responsible for the formulation, adoption, and implementation of scientific and technological R&D strategies in areas identified as vital to the country's development. DOST is a member of the PB, providing technical expertise and documentation on LCTs and solar charging stations to be developed. The Project will also leverage on the activities that they co-implement with DOTr such as the work on fast charging station. DOST will also contribute in the development of LCT training curricula, guidelines, protocols and standards on;
- *Department of Trade and Industry (DTI) - Board of Investment (BOI)*, responsible for catalysing intensified private sector activity to accelerate and sustain economic growth through comprehensive industrial growth strategy, progressive and socially responsible trade liberalization and deregulation programs and policymaking designed for the expansion and diversification of Philippine domestic and foreign trade. Their collaboration with other agencies such as DOST would be essential for the international adoptions of vehicle standards (such as ISO 8714:2012 as the reference energy consumption for vehicles) and guidelines (such as IEC 61851-1:2012 for general requirements conductive charging system);
- *Department of Energy (DOE)* responsible for expected to provide technical expertise on LCTs and supportive infrastructure such as solar charging stations. It will also help in the development of training curricula guidelines, protocols and standards on LCTs and their supportive infrastructure. DOE will also share its experiences on the implementation of E-trikes;
- *Department of Environment and Natural Resources (DENR)* coordinate with DOTr and provide expertise on the development of guidelines, policies and standards on LCTs and supportive infrastructures especially on environmental standards such as waste disposal of acid lead batteries for EVs, environmental compliance for LCT manufacturers and certification;
- *Climate Change Commission (CCC)*, provides interagency coordination on mainstreaming climate change in national, local and sectoral plans. It will also support the Project by endorsing the activities as well as promote the LCT initiatives in and outside the country. CCC will also contribute to the development of policies with special focus on climate change adaptation and mitigation
- *Technical Education and Skills Development Authority (TESDA)*, will support LCUTS by contributing to the development of the training curriculum on LCTs and supportive infrastructure. It will also help in piloting the training activities and institutionalization of training, and certify institutions that are capable of facilitating LCT and supportive infrastructure training;
- *Bureau of Product Standards (BPS)* will support formulation of the Philippine National Standards for LCTs components such as lithium-ion batteries for vehicles, parts of EV chargers, and

development of policies, standards, protocols and guidelines that will comply with national and international standards;

- *Land Transportation Franchising Regulatory Board (LTFRB)* and *Land Transportation Office (LTO)* will give substantial support to franchising of LCT and to the review of regulations on registration respectively. They will also support important studies such as the route rationalization, which will help identify available routes that will open for issuance for new franchises.

24. Private sector stakeholders includes:

- *Green Frog Hybrid Buses* who are operating 15-20 hybrid buses with franchise from LTFRB to serve passengers (point to point service) in routes traversing the cities of Pasay, Taguig and Makati;
- *Global Electric Transport (GET)* who provide sustainable, intelligent and inclusive transportation solutions, guided by the company's pillars on green mobility, smart technology and social enterprise manufacture. With their operation of COMET EVs, they are implementing demonstration projects of 56 additional EVs in Angeles City and Cebu City, and more recently, deployed seven modern EVs (Best Bus Service) in Davao City;
- *Electric Vehicle Expansion Enterprises, Inc. (EVEE-I)* who aim to modernize ageing and dilapidated diesel powered jeepneys in the Philippines with e-jeepneys with the support of the PUVMP. They are currently implementing demonstration projects with 40 e-jeepneys in Alabang, Muntinlupa City and Lancaster, Imus City;
- *Electric Vehicle Association of the Philippines (EVAP)* are behind the drive to establish a national development program for electric vehicles that is anchored on the existing Motor Vehicle Development Program for the automotive industry. They are involved in the development of policies and plans, guidelines and standards, particularly, in the manufacture and operation of e-jeepneys.

25. Stakeholders from academia, CSOs and NGOs include:

- *University of the Philippines National Center for Transportation Studies (UP-NCTS)* are supporting LCUTS by providing technical expertise on the development of policies, protocols, guidelines and standards. They are also assisting in facilitating the training activities and carrying out technical research projects such as route measurement capacity and feasibility studies;
- *Institute for Climate and Sustainable Cities (iCSC)* are behind the Climate-Friendly Cities (CFC) initiative, which pioneered the e-jeepney revolution and the move to integrate sustainable transport with clean energy. They are to be providing feedback and technical expertise on EV guidelines policies, protocols and training curriculum.

26. Stakeholders from government financing institutions includes both the Development Bank of Philippines (DBP) and Land Bank of the Philippines (LBP) who are currently serving as intermediary banks for the PUVMP, and providing financial assistance to project developers. They have also helped in the formulation of financial strategies and barrier removal to increase investment in low carbon transport projects, and the development of LCT guidelines, policies, programs, and standards.

3. FINDINGS

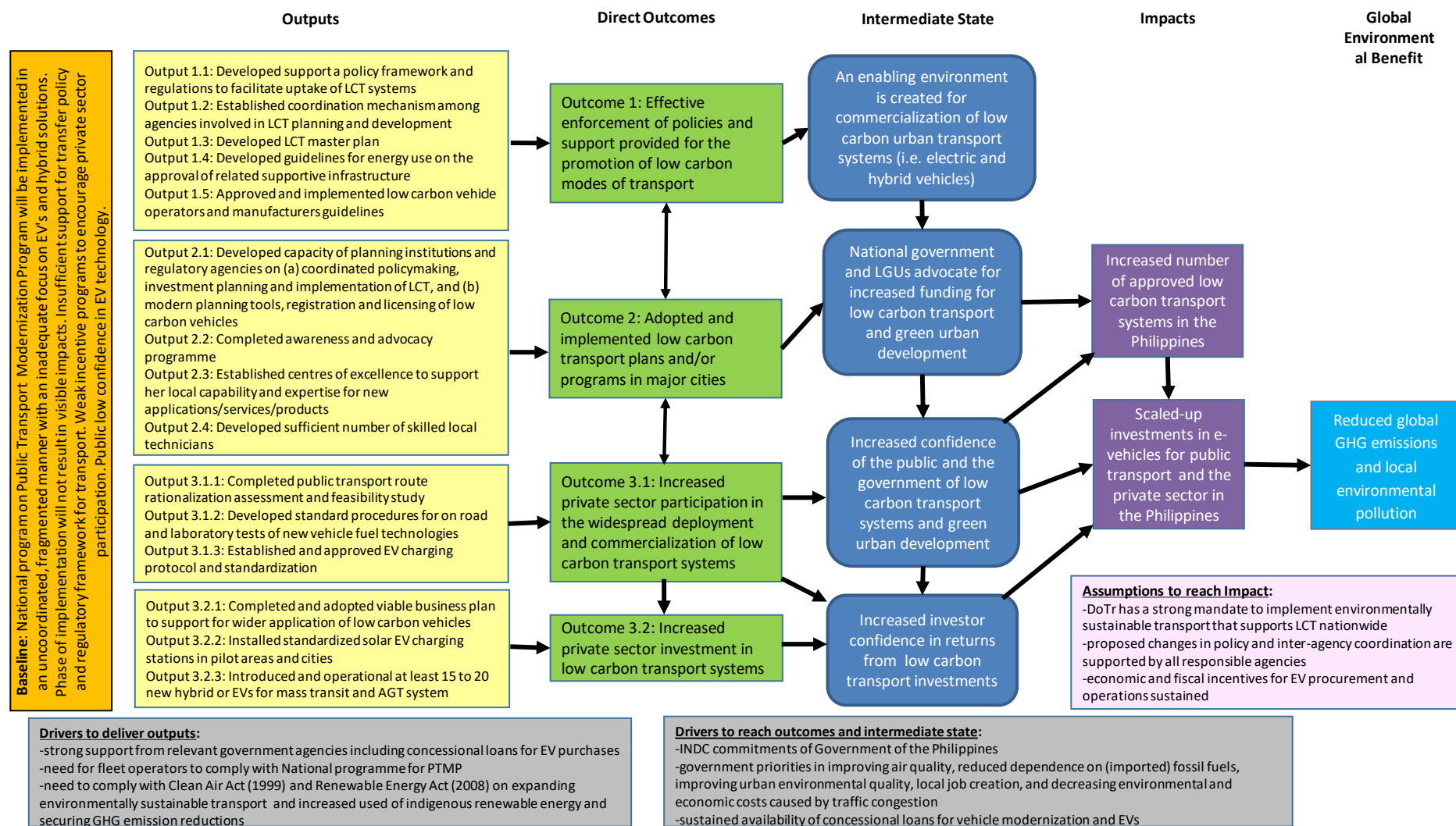
3.1 Project Strategy

27. The LCUTS Project design was formulated in close consultation with government, international organizations, finance institutions, and NGOs. The approach of the LCUTS Project sought to create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles and AGT systems) in the Philippines, building off of baseline efforts of the GoP to promote low carbon transport (as outlined in Paras 12 to 15). While the original LCUTS design specifically targeted low carbon public transport vehicles (such as electric and hybrid buses, electric commuter vans such as e-jeepneys, and automated guideway transit vehicles for mass public transport), the commencement of LCUTS was timely with the launching of PUVMP and the resources to facilitate the shift to EVs and vehicles to EU-4 or better for public transport. LCUTS does not include primary support to private EVs.
28. LCUTS was to holistically address the root causes and key barriers identified during the PPG phase and facilitate an enabling investment climate required for the commercialization of low carbon vehicles. The Project would use available technical assistance and investment finance from its stakeholders to improve the rate of EV deployment in the Philippines, focusing on public transport improvements. Concurrent to this, LCUTS was to strengthen the capacity of policy makers, the financial sector and the owners and operators of LCT vehicles to support LCT development, whilst at the same time undertaking concrete actions that will deliver emission reductions during the life of the interventions. This would include strengthening capacities for fleet operators in the operation and maintenance of EVs and charging stations. The Project design also includes plans to undertake extensive awareness and mass media campaigns to reach a substantial number of urban commuters and policy makers aware of low carbon transport and its benefits. The logic of this was to lead to increased investments into low carbon transport with the assistance of financial institutions. There was no Theory of Change (ToC) developed during the design phase of LCUTS though the PMU in close collaboration did develop a ToC during the Inception Workshop. A ToC based on the current LCUTS design in the ProDoc is illustrated on Figure 1.

3.1.1 Original Project Design

29. The LCUTS Project design seeks to create this enabling environment through a close working relationship between the DoTr, the Project Board and the PMU, and through augmenting ongoing (baseline) activities of DOTr. With LCUTS first being conceptualized in 2014 with a PPG phase implemented in 2016, some of the *prominent baseline conditions* and activities around the commencement of LCUTS include:
 - The Philippines undertaking more urban transport projects but with more predilection towards road expansion and large infrastructure to facilitate the increased motorization rather than striving for a more sustainable and comprehensive urban transport development;
 - DOST and DOE will continue their contributions towards the implementation of the National Implementation Plan (NIP) on Environment Improvement in the Transport Sector Low Pollution-Low Emission. The pace of NIP implementation progress, however, will be insufficient to realize visible impacts. This would translate into continued insufficient, unstable and incomplete support for transport policy and regulatory support for low carbon transport solutions. Incentive programme to encourage private sector participation will remain weak;

Figure 1: LCUTS Theory of Change



- The disbanding of the Environmentally Sustainable Initiatives in Transportation Unit (ESITU) of the DOTr as a DOTr counterpart for coordination support for all Special Vehicle Pollution Control Fund (SVPCF) funded projects focusing on LCT solutions. DOTr counterpart staff for LCUTS were technical staff on “Job Order co-terminus” with the Project. DOTr permanent staff from the “Road Transport Planning and Infrastructure Service” appear to have limited involvement in LCUTS activities limiting development of any institutional capacity (to significantly ramp up coordination support to EVs and hybrid related interventions among agencies);
 - Coordinated policy making will be challenging amongst the several government agencies for the development of institutional framework and investment plans or development of low carbon transport vehicles and its commercialization;
 - Low confidence in vehicle technology, durability and performance will continue to affect perception of public and policy makers alike;
 - The finance sector remains unaware and doubtful of the business prospects and returns on investment from low emission vehicle technology. They will lack the expertise and necessary tools to evaluate projects and provide innovative financing solutions;
 - Low level of knowledge at LGU level to develop respective Local Public Transport Route Plan (LPTRP) to comply with national government mandate to include in the Local Development Plan. The LPTRP provides opportunities for localized low carbon transport strategies.
30. These baseline activities were incorporated into the LCUTS Project strategy that was developed in close consultation with DOTr with Project resources utilized to strengthen many of these baseline situations. For example, LCUTS resources would be used to strengthen coordination amongst several different government agencies to develop the institutional framework for investment plans into LCT vehicles. LCUTS was also trying to boost confidence in the EV technologies to the extent that the public and policymakers have much more positive perceptions of the EV technology. As well, the financial sector becomes more aware of the business opportunities and returns on EV investments, and is able to provide innovative financing solutions for EVs.
31. Underlying assumptions of each baseline activity towards their contribution to achieving the overall Project results was covered in the PRF. This includes assumptions such as the strong support from relevant government agencies, proposed changes in policy and inter-agency coordination are supported by relevant agencies, and regulations on vehicle inspection are in place through the Philippine National Standards. There are also 9 project risks in the ProDoc (too many risks for the PMU to monitor), which should have listed less than 6 risks in the UNDP risk log.
32. Considering the inadequate progress, the primary issue for the MTR team in the context of the LCUTS design is the lack of a logical and efficient pathway to generating GHG emission reductions. A logical flow of activities would consist of a pilot operation or demonstration of LCT activities (that could include EV demonstrations, green routes) followed by information and data collection on economic and environmental benefits of LCUTS interventions, and dissemination of this information. The impact of a demonstration and dissemination of information should be sufficient to boost public and investor confidence in the LCUTS interventions, and eventual LCT investments. LCT activities in the ProDoc do not provide specific locations and activities on which this pathway could be followed within the timeframe of the LCUTS Project, though there are some ongoing discussions with various initiatives that are further discussed in Para 42 and Table 1. This could explain the reasons why, after less than 1 year of implementation, there is some progress on LCT implementation but insufficient progress to generate GHG emissions within the LCT timeframe which ends on 17 November 2021.

33. A review of the LCUTS ProDoc reveals that gender issues were considered wherever practical on this Project. This included considerations in gender equality in the design of capacity development opportunities, and a collection of passenger data that is gender disaggregated and, allowing for more effective policies and strategies that respond to the entire population, and not just one gender. The LCUTS Project was designed to address gender issues through the Gender Mainstreaming consultant to be hired on the project.

3.1.2 Analysis of Project Results Framework

34. The Project Results Framework (PRF) of the LCUTS Project generally meets most of the “SMART” criteria⁸ that is sufficient to effectively monitor project progress. Specific comments regarding some of the indicators in the PRF are as follows:
- Descriptions of the Project objective and outcomes are concise and easily understandable with numeric targets;
 - Without specific locations of LCUTS activities, the achievability of the objective level targets is difficult to assess. However, the emission reductions from an electric jeepney or small commuter bus can be estimated anywhere within range of 230 to 615 tCO₂ (over a 15-year lifetime) depending on the daily distances traveled and whether or not the power is sourced from the grid (with a grid emissions factor) or a renewable source (such as an array of solar panels). As such, for LCUTS to succeed in achieving direct incremental GHG emission reductions of 52,959 tCO₂, the Project would need to deploy anywhere in the range of 86 to 460 electric vehicles. This is an achievable number of e-bus or e-jeepney investments. If these were electric trikes, the number of electric vehicles would be much higher. More details of this calculation are in Appendix G; and
 - no need for separate Outcomes 3.1 and 3.2. One outcome would have sufficed that would have covered an increase in private sector investment. This outcome could have been monitored and using the indicators that are already in the PRF. By having one less outcome, monitoring and efforts of the PMU would be easier with the PMU only having to monitor 3 outcome budgets rather than 4. The MTR team notes that the PMU are already monitoring 3 outcomes only.
35. Overall, the LCUTS Project design and formulation is rated as **satisfactory**. However, there is a need for a revised LCUTS Project approach to meet the overall GHG emission target of 52,959 tCO₂, which is rationalized in Sections 3.2 to 3.4 with recommendations provided from Paras 77 to 93.

3.2 Progress towards Results

3.2.1 Progress towards Outcome Analysis

36. Progress towards results is provided on Table 1 against the EOP targets in the LCT PRF. Comments on some of the ratings are provided in the following paragraphs. For Table 1, the “achievement rating” is color-coded according to the following colour coding scheme:

Green: Completed, indicator shows successful achievements	Yellow: Indicator shows expected completion by the EOP	Red: Indicator shows poor achievement – unlikely to be completed by project closure
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⁸ Specific, Measurable, Attainable, Relevant, Time-bound

Table 1: Progress Towards Results Matrix (Achievement of outcomes against End-of-Project Targets)

Project Strategy	Indicator	Baseline Level	Level in 2020 PIR/3Q QPR	End-of-Project Target	Midterm Level and Assessment	Achievement Rating	Justification for Rating
Project Objective: Creating an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles) in the Philippines	Incremental direct GHG emissions reduced due to the Project over the technology lifetime, (tCO _{2e})	16,054 tCO _{2e}	0	69,013 tCO _{2e}	0 for all indicators. With no operational LCT systems or fleets of EVs, there is no progress with people employed in LCT nor are there any additional users of LCT modes of transport		See Paras 37-38
	Number of people gainfully employed in the low carbon transport sector	50		At least 222			
	Number of daily users of new transport options using low carbon transport systems	6,500	0	At least 20% increase per year			
Outcome 1: Effective enforcement of policies and support provided for the promotion of low carbon modes of transport	Number of issued policies that support the promotion of low-carbon transport by Year 3	0	There are 14 counterpart bills being consolidated into one bill under SB 1382. PMU has submitted its comments and proposed revisions within the DOTr, for consideration in the final submission of the Department to the concerned House Committees in charge of the proposed legislation. At the same time, the PMU is coordinating with various government agencies to discuss its inputs on the proposed legislation, which will significantly contribute to the promotion of low carbon transport systems.	4	The lower house of Congress Technical Working Group (TWG) prepared the draft consolidated Bill (incorporating the key features of the 14 separate bills filed by different lawmakers) that serves as the counterpart bill of the Senate version “Electric Vehicles and EV Charging Stations Act”. The draft bills will still be subject to a series of deliberations at the Committee level in both houses of Congress with LCUTS and other agencies providing technical inputs.		See Paras 39-40
	Number of standards promulgated for low-carbon vehicles by Year 3	0	The Project has been coordinating with the Department of Trade and Industry and DOTr on the	3	A firm is being hired by the PMU to formulate the guidelines for low carbon fleet operators, facility managers and manufacturers. As of end of		See Para 41

Project Strategy	Indicator	Baseline Level	Level in 2020 PIR/3Q QPR	End-of-Project Target	Midterm Level and Assessment	Achievement Rating	Justification for Rating
			standards to be developed for the following: <ul style="list-style-type: none"> • components and spare parts of the modern PUVs • guidelines for the LGUs on supportive infrastructure • guidelines for low carbon fleet operations, facility managers and manufacturers 		quarter, the TOR is being finalized and the firm is targeted to be procured by 4th quarter.		
	Executive Order for interagency coordination on low-carbon transport system approved and adopted by EOP	0	The PMU is continuously strengthening its network within the DOTr and with other partner agencies, with the goal of ensuring that the key stakeholders are (1) well informed, (2) continuously participative, and (3) generally supportive of the activities undertaken under the project	1	The Executive Order has been drafted, for consideration by DOTr. At the same time, a draft Special Order designating a Technical Working Group within the DOTr was presented during the TWG meeting last September 23. The revised draft issuance is expected to be approved by Q4 2020.		
Outcome 2: Adopted and implemented low carbon transport plans and/or programs in major cities	Number of cities capacitated by adopting and implementing low carbon transport plans and programs	1	Needs analysis and planning workshop with City of Santa Rosa, Baguio City and Iloilo City were completed during the first quarter of 2020 DTI coordination meeting to discuss the needs in the development of standards for EV in Aug 2019 Over 2020, the PMU has reviewed the respective LPTRPs of the pilot cities, particularly for Iloilo City and Baguio City and has joined public consultations. The PMU continuously provides technical assistance to the pilot cities until the completion of the LPTRPs which incorporates the	At least 4	Following the pilot LGUs assessment meetings, LCUTS support is now focused on concrete actions for mainstreaming low carbon urban transportation including non-motorized vehicle (NMV) interventions. Technical inputs to the formulation or updating of an LPTRP is the main entry point, since LGUs are in the process of developing their LPTRP to comply with the national government guidelines. Emphasis needs to shift to assisting local public Transport Cooperatives or private sector investors that will clarify the pathway to implementing these plans and generating GHG emission reductions.		See Para 42

Project Strategy	Indicator	Baseline Level	Level in 2020 PIR/3Q QPR	End-of-Project Target	Midterm Level and Assessment	Achievement Rating	Justification for Rating
			green lens in the local public routes				
	Number of institutions certified to conduct low carbon vehicle technician training	0	Technical Education and Skills Development Authority (TESDA), the consultation meetings have been conducted regarding the development of Training Regulations (TRs), specifically for the electric vehicle technicians training. The Training Regulation shall be developed and finalized by TESDA, DOTr, LCT Project, and experts. Once the TRs have been formulated, the TESDA will assist in capacitating another training institution and thereafter certify the institution to conduct low carbon vehicle technician training. This has not yet started.	At least 2	Work towards this indicator has not yet started, and would be a low priority until there are more EVs operating.		
Outcome 3.1: Increased private sector participation in the widespread deployment and commercialization of low carbon transport systems	Number of entities involved in the deployment and commercialization of low carbon transport systems by EOP	3	The Electric Vehicles Association of the Philippines (EVAP), with 54 members, has been actively engaged in the Project. The following activities have been conducted with the support of EVAP: <ul style="list-style-type: none"> • Project Work Planning with the three pilot LGUs • Low Carbon Transport (LCT) Forum Considering the effects of the pandemic to the EV industry, the level of engagement of EV companies has been weak and will need to be strengthened	5	Private sector players in the public transport industry continue to have a positive outlook on low carbon urban transport, especially deployment of EVs for public transport, although at a slower rate due to the pandemic. Transport cooperatives contacted have started implementing their plan to modernize their PUV fleets to EVs or Euro 4 compliant vehicles.		See Para 43
	Number of bankable business	0	At present, the LBP and DBP have existing lending programs for the	2	Both LBP and DBP have reopened their lending programs for PUV		See Para 44

Project Strategy	Indicator	Baseline Level	Level in 2020 PIR/3Q QPR	End-of-Project Target	Midterm Level and Assessment	Achievement Rating	Justification for Rating
	plans, supported by the Project, completed and funded by Year 3		public utility vehicle (PUV) operators. With the current pandemic situation, the BDWs intend to tackle the economic impact to the electric vehicles industry and will also inform the strategies of the public utility operators for their recovery		operators as of early November 2020. The PMU should pursue the opportunity to work with these banks to assist in the promotion of EVs, supporting the development of bankable business plans, and the financing and deployment of more EV buses and jeepneys.		
Outcome 3.2: Increased private sector investment in low carbon transport systems	Number of additional investors who invested in low carbon transport solutions facilitated by the Project by EOP	0	The achievement of the indicator is deemed to be affected by the pandemic, with reasons such as having low demand for electric vehicles	4	No progress on this indicator. However, the re-opening of the DBP lending portfolio for PUVMP in early November 2020 is a good opportunity for the PMU to attract additional investors into electrifying their bus fleets.		See Para 45
	Cumulative investment in new low carbon vehicle projects by EOP	Approximately USD 7,500,000	The Project is closely coordinating with DOTr, DTI, Land Transportation Office (LTO) and Land Transportation Franchising and Regulatory Board (LTFRB), and the private sectors in encouraging investments on EVs and on other low carbon vehicles	Approx. USD 20 million	No progress on this indicator until the project is able to claim that there are additional LCT investors, and other examples of positive EV investments (complete with Project developed information of these investments)		See Para 46

Project objective level targets:

37. With regards to the target of “52,959 tCO_{2eq} incremental direct GHG emissions reduced due to the Project over the technology lifetime”, the Project has not made any progress in the setup and deployment of low carbon modes or transport. At the time of writing of this MTR, the Project has several leads for the deployment of electric vehicles in the public transport space. However, the timeframe to realize these deployments is uncertain with a number of barriers (as further discussed in Para 47) obstructing progress.
38. Similarly, with the other 2 objective level targets, there is no progress on the gainful employment of people in the low carbon transport sector and users of new LCT systems, and not until new LCT modes of transport are deployed and operational. As such, this should be a top priority for the LCUTS PMU for the remaining time on the Project. A bigger issue, however, is the time remaining on the LCUTS Project which is less than one year (EOP date is 17 November 2021). It is highly unlikely that any of these indicators will be met by the EOP date.

Outcome 1 targets:

39. New legislation has come into effect on 10 and 12 May 2019 to support government policies to ensure that solar PV installations for residences are used only for consumption by the households, and not for the sale of electricity into the grid. As a result, this new legislation provided clarity that unlicensed solar PV plants would only be solar PV rooftop installations with capacities that are commensurate to their actual electricity consumption (which can include EV charging). New legislation also includes: R.A. 11285 (April 2019): Institutionalizing Energy Efficiency and Conservation and Enhancing the Efficient Use of Energy, and Granting of Incentives to Energy Efficiency and Conservation Projects. This law also mandates the LGUs to mainstream energy “Efficiency and Conservation” into their local development plans and to enforce compliance on standard ratings of energy performance of buildings and industries.
40. The final configuration of the Law on Electric Vehicles and Charging Stations is slowly emerging and will certainly facilitate the uptake of EVs and establishment of support infrastructure. However, the process leading to the enactment of this law will only occur beyond the current EOP date.
41. In addition to firm being hired to formulate guidelines for low carbon fleet operators, facility managers and manufacturers, a transport planning firm is being hired by the PMU to conduct the social, environmental, and economic assessment policies supporting low carbon urban transport systems in pilot cities. As of end of the 3rd quarter, the TOR is being finalized and the firm is targeted to be procured by 4th quarter. This will include existing national government policy support to the urban transport sector such as:
 - Tax reform for acceleration and inclusion (TRAIN) that exempts pure EVs from excise taxes while hybrids gets 50% excise tax reduction;
 - Omnibus Investment Code (EO 226) that provides fiscal and non-fiscal incentives including the establishment of electric charging stations for EVs; and
 - Public Utility Vehicles Modernization Program (PUVMP) that provides incentives for replacement of old PUVs with modern low carbon fleets.

Outcome 2 targets:

42. LCT plans and programs of the 3 cities are currently being implemented through outsourced consultants. Iloilo city and Baguio are using consultants from the local universities to provide the appropriate planning services. Santa Rosa City, however, are exclusively using external consultants for planning their green boulevards, pedestrian and bikeway masterplan. LCUTS provided technical support in the preparation of the Santa Rosa City LPTRP. Emphasis, however, should be on assisting local public Transport Cooperatives or private sector investors who are in the process of deciding on the types of vehicles (EVs or EURO 4 compliant) to replace their old fleet units to comply with PUVMP. Overall, the pathway to implementing these plans and generating GHG emission reductions is unclear based on the current obstacles, notably LGUs in the process of developing their LPTRP to comply with the national government guidelines, which may or may not get solved within the current timeframe of LCUTS.

Outcome 3.1 targets:

43. The current LCUTS engagement method with pilot LGUs targets LGUs with political will who would have a higher likelihood of adopting and implementing LCT plans. Key stakeholders are involved in the process including private sectors and transport cooperatives who will acquire and deploy modern public transport fleets (EVs and Euro 4). Proposed engagements of the private sector public transport providers should be made a priority activity to realize the deployment of LCT fleets within the LCUTS Project timeline. This will involve providing performance information on EVs and comparative financial advantage compared to ICEs.
44. Notwithstanding the impacts of the pandemic on the economics of EVs, both LBP and DBP have reopened their lending programs for PUV operators as of early November 2020. Their rationale for the reopening of these lending portfolios is due to increasing demand for EV financial assistance (with public transport occupancy reaching 50%), and based on their analyses that EV buses are more economic than modernized EU 4 diesel buses anywhere from 10 to 20% depending on how they are operated. As such, it is imperative that the PMU pursue this opportunity to work with these banks to support their development of bankable business plans that will assist in the financing and deployment of e-buses and e-jeepneys, and GHG emission reductions from the Project.

Outcome 3.2 targets:

45. Private sector deployment of low carbon urban transport vehicles is occurring though at a slower pace due to the pandemic, and with the need for public transport companies to comply with the conditions of the PUVMP to modernize public transport vehicles older than 15 years. Many of the companies currently investing are doing so with EU4 vehicles due to their lower cost compared with EVs. LCUTS work on Outcome 1 will further consolidate support to private investors and to LGUs with the fiscal and non-fiscal incentives for EVs and supporting infrastructure such as charging stations. However, an increased level of PMU activities focused on EV data monitoring and data collection (on Output 2.2), and the preparation of bankable EV business plans (Output 3.2.1) should facilitate the achievement of Outcome 3.2 targets.
46. The target of US\$12.5 million in incremental EV investment by the EOP is not likely achievable by the November 2021 EOP date. This target is commensurate with the objective-level target of incremental

GHG emission reductions of 52,959 tCO₂ (equivalent to 86 to 460 e-bus commuters or e-jeepneys as mentioned in Para 34 or Appendix G).

3.2.2 Remaining Barriers to Achieving Project Objective

47. There are numerous barriers to the full achievement of targets in the LCUTS Project, especially considering the current EOP is 17 November 2021, 11 months from the time of writing of this report. These barriers include:
 - the ambitious design with only 11 months remaining on the LCT Project;
 - a lack of a clear developmental pathway in LCUTS interventions that will generate GHG emission reductions towards the LCUTS target of 52,959 tCO₂;
 - ongoing attempts by various LGUs to plan, design and implement LCT projects, some of whom are working with limited capacity in developing green urban transport projects;
 - insufficient information on the benefits of EV operations and long-term economics that can better inform potential EV investors, cooperatives and fleet owners; and
 - COVID-19 which has had the impact of reducing ridership on public transport and clouding the economics of electric vehicle operation.
48. Without an extension of time of 24-30 months to implement the LCUTs Project, many of the aforementioned barriers would still remain. With the granting of such a Project extension to implement a revised LCUTS Project strategy with remaining LCUTS resources, there is a stronger likelihood that the barriers listed in Para 47 can be lowered. As a priority, the PMU should focus on working with DBP and other intermediary banks managing PUVMP funds to raise awareness and knowledge of EV investments (using existing EV fleets and new EV investments) with the aim of catalysing EV investments. Once the Project is able to generate robust information on the operations and costs and returns of an EV investment, EV investments should be catalysed. The outcome of additional EV fleets deployed and boosted investor confidence in EVs should generate GHG emission reductions towards the LCUTS Project target. Details of a new LCUTS approach is provided in Paras 78 to 83 with this new priority of Project support for “Output 2.2: Completed awareness and advocacy programme where awareness is targeted on investor” followed by “Output 3.2.1: Completed and adopted viable business plans to support the wider application of low carbon vehicles”. Once these 2 outputs have been substantially delivered, many of the other activities within Components 1 and 2 can be easily implemented, including the certification of training institutes, and development of LCT plans with LGUs, and the strengthening of LCT policies.

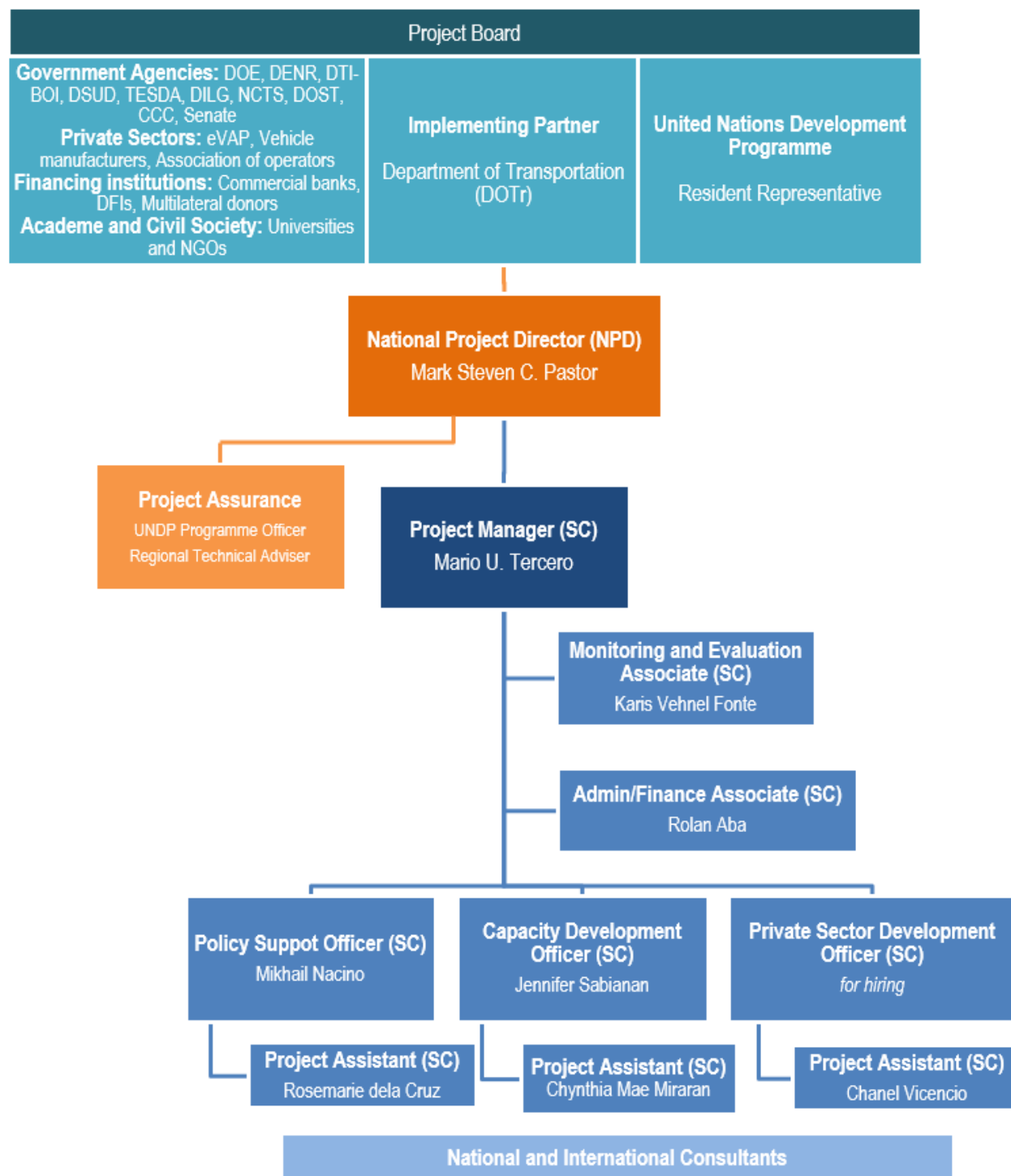
3.3 Project Implementation and Adaptive Management

3.3.1 Management Arrangements

49. The LCUTS Project is under national implementation (NIM) with recent changes made to the Project’s management arrangements as depicted on Figure 2. While the LCUTS Project has had a slow start, the Project has been under the leadership of DoTr through the National Project Director position. The tenure of the 1st NPD was from November 2017 to April 2018. The tenure of the 2nd NPD was from May 2018 to July 2020 during which time the Inception Workshop was held in December 2018. The current NPD commenced his tenure in August 2020.

50. The genesis of work for LCUTS activities mostly comes from the PMU with additions by the Project Board during their PB meetings. With the approval of the PB, many of these ideas becomes developed by the PMU as a part of the work plan being executed. The PB meeting minutes provides these details.

Figure 2: Current management arrangements for the UNDP-GEF Project “Promotion of Low Carbon Urban Transport Systems in the Philippines (LCUTS) Project



51. From a management perspective, the inadequate LCUTS progress to date can be attributed to 3 main factors:
- The loss of 22 months (from November 2017 to September 2019) when LCUTS was not fully staffed with an NPD or a full complement of PMU staff, and the disbanding of the ESITU during the first half of 2019;
 - The slowdowns caused by the COVID-19 pandemic commencing in March 2020; and
 - Only 6 months of full operation of LCUTS (between September 2019 and February 2020) that have led to some uncertainty of how current activities could lead to direct GHG emission reductions by the EOP date of 17 November 2021. While these activities are useful in terms of achieving progress as set out in the LCUTS ProDoc, there needs to be a focus on achieving GHG emission reduction targets considering the remaining time left on LCUTS. While there are good suggestions being generated at PB meetings with respect to green urban transport initiatives, the focus should be on investments that are sufficiently substantial to achieving the 52,959 tCO_{2eq} (that includes e-buses, e-commuter buses and e-jeepneys due to their large GHG emission reductions in comparison to e-trikes). These management arrangements along with this renewed approach is further discussed in Paras 78 to 83.
52. Since September 2019, the new management arrangements under the PMU are now better defined with additional full-time and part-time staff who are divided up into component teams consisting of a component lead and component Project Assistant. While all these staff are based in the Manila office, much of their work appears to be based outside of Manila with LGUs of Iloilo City, Baguio City and Santa Rosa (with Pasig City being the only one located in Manila). With the exception of the Project Manager and the M&E associate, the remaining staff have only been recently recruited as long ago as 12 months. Furthermore, the pandemic has made travel to the cities outside of Manila much more difficult.

3.3.2 Work Planning

53. The MTR team was provided evidence of the Project's work planning. Work planning for 2019 was presented in the 1st Project Board meeting minutes from 2 February 2019. Planning for 2020 was presented in the 3rd Project Board meeting notes of 28 November 2019. The 2nd and 4th Project Board meeting minutes also documented discussions regarding changes needed within their respective work plans of 2019 and 2020. All PB meetings were well attended, and inputs were solicited from all government agencies as well as private sector stakeholders for the various AWP.
54. An observation from the MTR team regarding work planning are the numerous inputs from several stakeholders both public and private. For example, in the 2019 workplan discussion, Project resources were used to discuss how to move LCT initiatives forward nationally. This would have included the DOI making research on EV incentives with DOF, BIR and CCC creating provisions for incentives for EVs. There were also discussions in the AWP for 2019 of the need for DOTr to implement the “Vehicle Useful Life Program”, wherein the country aims to establish one scrapping facility per region for old jeepneys. There were also proposed sessions teaching public operators and drivers about LCT, and somehow having the LCUTS Project becoming an ecosystem of proper urban planning as well as LCT.
55. Similarly, for the 2020 AWP, there were a number of actions planned focusing on LGU activities to establish LCT systems and other green urban development. This included data gathering from other

LGUs, developing a communication strategy towards LCT, raising awareness on LCT with LGUs, building the capacity of LGUs, and catalyzing greater access to financing investment for corporations, cooperatives and end-users of LCT. Though appropriately ambitious, the 2020 AWP has been considerably hampered in implementation due to the COVID-19 pandemic. The 4th PB meeting minutes (from 10 September 2020) does mention that the 2021 AWP will be dependent on the findings from this MTR.

56. In conclusion, work planning for the LCUTS Project appears to be well organized with broad and thoughtful inputs of all Project Board members but needing more focus on activities that will directly lead to GHG emission reductions from the deployment of EVs. While effective work planning has been made all the more difficult by the pandemic, the minutes from the 4 PB meetings within 2 years provides evidence of the efforts being made by the Project Board to ensure optimal use of the GEF funds as written in the ProDoc. The PMU with less time remaining in LCUTS will need to screen its work plans to focus on efforts to deploy EVs with PUVMP assistance.

3.3.3 Finance and Co-Finance

57. After 36 months of Project disbursements, only US\$340,234 or 12.9% of the LCUTS grant of US\$2,639,726, has been expended or committed as of 30 June 2020. The expenditure of LCUTS GEF budget up to 30 November 2020 can be characterized as follows:
 - Most of the expenditures, approximately 69%, are personnel expenses, either contractual or individual consultants;
 - A learning cost of US\$59,343 has been recorded with materials that are being produced by consultants and the PMU that provide technical information for dissemination to all stakeholders;
 - Travel was only US\$19,630 to date which is low considering the number of cities outside of Manila that are participating on LCUTS;
 - The remaining expenditures are all sundry and office-related.
58. Despite the low rates of disbursement, the Project has demonstrated that appropriate financial controls are in place, notably through the detailed Project budget reports made available to the MTR team. Moreover, these reports provide evidence that expenditures of activities were made through informed decisions that closely follow the plans in the ProDoc and are cleared by the Project Board. One of the indications of Project cost control is the involvement of UNDP’s Procurement Department at the CO, and ensuring all UNDP and related rules procurement complied with, most notably with the recruitment of consultants. In conclusion, however, the cost effectiveness of the use of the LCUTS Project budget to date has been **satisfactory**, notwithstanding the lack of delivery of the LCUTS Project within the first 3 years of the Project. Disbursement of the LCUTS GEF resources are provided in Table 2. Disbursement of the LCUTS GEF resources to date according to ATLAS codes is provided on Table 3.
59. Co-financing commitments for the LCUTS Project was to have been US\$22.44 million. To date, there has been in-kind co-financing from DoTr and UNDP, and grant co-financing from PUVMP and DOST research projects. However, due to the long drawn-out events to launch LCUTS as outlined in Para 20, co-financing of the Project to date has been **unsatisfactory**. Co-financing details to date are summarized on Table 4.

Table 2: GEF Project Budget and Expenditures for the LCUTS Project (in USD as of 30 November 2020)

Outcome	Budget (from ProDoc)	2017²¹	2018	2019	2020²²	Total Disbursed	Total to be expended in 2020	Total remaining
Outcome 1: Effective enforcement of policies and support provided for the promotion of low carbon modes of transport	624,900	-	6,913.87	37,031.25	93,998.79	137,943.91	79,165.81	407,790.28
Outcome 2: Adopted and implemented low carbon transport plans and/or programs in major cities	400,350	-	2,124.57	10,051.47	41,444.72	53,620.76	12,299.39	334,429.85
Outcome 3.1: Increased private sector participation in the widespread deployment and commercialization of low carbon transport systems	1,488,776	-	4,882.19	26,713.47	47,087.38	78,683.04	200,176.34	1,209,916.62
Outcome 3.2 Increased private sector investment in low carbon transport systems	1,086,776							
Project Management	125,700	-	2,857.97	29,370.26	37,758.22	69,986.45	2,393.98	53,319.57
Total (Actual)	2,639,726	-	16,778.60	103,166.45	220,289.11	340,234.16	294,035.52	2,005,456.32
Total (Cumulative Actual)		0	16,778.60	119,945.05	340,234.16			
Annual Planned Disbursement (from ProDoc) ^{***}		0	769,750.00	870,500.00	617,576.00			
% Expended of Planned Disbursement			2%	12%	36%			

²¹ Included in 2018²² Expenditures from CDRs from January-November 2020

Table 3: GEF Project Expenditures for Philippines LCUTS Project against ATLAS codes (in USD as of 30 November 2020)

ATLAS Code	Expenditure Description	US\$
63360	Medical Exam (Incl Pre-empl)	49.57
64397	Services to projects - CO staff	5,885.23
71305	Local Consultants	74,501.50
71405	Service Contracts - Individuals	158,925.40
71635	Travels	19,629.74
72205	Office Machinery	255.64
72425	Mobile Telephone Charges	2,091.77
72505	Office Supplies	1,858.91
72515	Print Media	7.86
72805	Acquisition of Computer Hardware	14,242.93
73440	Lease Heavy Equip&Other Equip	324.52
74525	Sundry	45.11
74596	Services to projects - GOE	2,676.53
75705	Learning Cost	59,343.10
76120	Foreign exchange	486.35
Total		340,324.16

Table 4: Actual Co-Financing for LCUTS Project (as of 30 November 2020)

Co-financing (type/source)	UNDP own financing (million USD)		Government (million USD)		Partner Agency (million USD)		Private Sector (million USD)		Total (million USD)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants ²³	0.020	0.000	8.121	0.716 ²⁴			9.500	0.000	17.641	0.716
Loans/Concessions									0.000	0.000
• In-kind support	0.070	0.186	1.629	0.199			3.100	0.000	4.799	0.386
• Other									0.000	0.000
Totals	0.090	0.186	9.750	0.916	0.000	0.000	12.600	0.000	22.440	1.102

²³ Includes all cash contributions²⁴ Related to management of funds from PUVMP and DOST research projects, all related to low carbon transport activities based on letters of intent from counterparts in government

3.3.4 Project Level Monitoring and Evaluation Systems

60. The MTR team has had access to the 2019 and 2020 PIRs as well as QPRs from 2019 and the first three quarters of 2020 and the 2019 APR. Both the QPR and APRs provide evidence of monitoring and evaluation to the activity level of the Project as well as the expenditures for each component. The information provided in these reports provides appropriate information for undertaking adaptive management and managing critical risks. However, based on the loss of activities during 2018, and the slowdown in activity in 2020 during the COVID-19 pandemic, the LCUTS Project has really only had just less than one year of effective implementation. In April 2020, the LCUTS Project also provided a "Vertical Fund COVID survey" which was prepared for the purposes of informing the Bangkok Regional Hub of how the LCUTS Project is managing itself during the pandemic, and what would be the projected impacts of the pandemic on achieving its overall objectives and targets. Overall, the M&E systems of the LCUTS Project are rated as **satisfactory** considering the diligent reporting of the progress against the LCUTS PRF and the activities of the LCUTS.

3.3.5 Stakeholder Engagement

61. The Project has made **satisfactory** efforts to facilitate partnerships, notably within the Project Board that can be categorized as follows:
- engagement with various national government agencies that includes the CCC, DOE, TESDA and the DENR;
 - engagement with government financial institutions such as the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP). Engagement with these stakeholders is also viewed as being very important in terms of being able to provide concessional loans for the PUVMP scheme;
 - the private sector that includes GEP, Nissan and the EVAP, all of whom are involved with the supply and deployment of EV's throughout the Philippines; and
 - civil society and NGOs such as the Clean Air Asia.
62. An important stakeholder recently engaged through LCUTS have been the LGUs. Their engagement was screened by the Project through criteria that included ongoing LCT plans and projects, and strong political will. Their engagement was viewed as important and a critical pathway to deploying LCT in urban areas. However, the Project's engagement with the LCUTS technical assistance has been somewhat hampered by the COVID-19 pandemic, restricting travel to many of these LGUs where there are capacity issues related to the planning of green corridor and LCT initiatives. One of the means of strengthening the current level of engagement of these remote LGUs is to recruit locally based consultants though sourcing qualified local consultants may prove to be difficult in some of these LGUs (unless there is an academic institution located within that LGU such as in Iloilo city).

3.3.6 Reporting

63. LCUTS progress reporting has been **satisfactory** in the context of providing PMU and UNDP CO personnel with sufficient information to adaptively manage the Project, and to provide adequate budget allocations. The Project has well-written PIRs, a 2019 APR and QPRs mainly from 2020 to provide progress to the activity level against each outcome and indicator to a fair level of detail. Due to the inadequate progress, many of the progress reports of the indicators end up being work plans

for that particular indicator. The Project also has QPRs which provide descriptions of activities undertaken within a quarter, matching the activities provided in the ProDoc.

3.3.7 Communications

64. With regards to Project communications with stakeholders, LCT project personnel have spent considerable efforts to maintain communications with LCT stakeholders:

- The Project has a collaboration with DOTr in facilitating this outreach, notably with respect to initial and ongoing consultations with the 4 LGUs that are targeted for Project assistance in developing LCT plans and designs;
- The Project and PMU do much of the follow-up from UNDP's network as well as DOTr to track down and engage private sector stakeholders as well as personnel from other government ministries (as listed in Paras 23-25);
- However, with so many stakeholders being involved on the LCUTS Project, the PMU need to make an effort to screen stakeholder involvement as the PMU needs to identify those stakeholders who can provide:
 - development pathways to deploy low carbon transport modes that will generate the required objective-level GHG emission reductions; and
 - ensure long-term sustainability and constituency building for policy advocacy for low carbon transport.

65. The LCUTS Project does have a specific website for its Project activities to promote its LCT programs (<https://lowcarbontransport.ph/>). The site is informative and provides a platform for progress of the Project, although at this time, some of the pages such as the “impacts” page are not well populated due to slow progress during the pandemic. Further proposed improvements to the website include:

- providing “interactive” capacity for purposes of contributing to data collection on EV practices from all sectors of the industry;
- linking with targeted partners and stakeholder websites to promote EV awareness raising to the public;
- the social media page for the project (@LCTProjectPH) which may be further improved by keeping the page active by:
 - posting updates on the projects;
 - posting updates on the accomplishments of the partner agencies;
 - posting testimonials of LCT operators, LGUs (related to Recommendation 15) or even commuters; and
 - launching an information series on LCT where virtual groups may also be explored.

3.4 Sustainability

66. In assessing sustainability of the LCUTS Project, the mid-term reviewers asked “how likely will the Project outcomes be sustained beyond Project termination?” Sustainability of these objectives was evaluated in the dimensions of financial resources, socio-political risks, institutional framework and governance, and environmental factors, using a simple ranking scheme:

- 4 = *Likely (L)*: negligible risks to sustainability;

- 3 = *Moderately Likely (ML)*: moderate risks to sustainability;
- 2 = *Moderately Unlikely (MU)*: significant risks to sustainability; and
- 1 = *Unlikely (U)*: severe risks to sustainability; and
- U/A = *unable to assess*.

Overall rating is equivalent to the lowest sustainability ranking score of the 4 dimensions.

67. Financial risks to sustainability: Current financial risks to the sustainability of the LCUTS Project are related to the availability of financing from the DOTr’s PUVMP. According to the government banks executing the loan program, DBP and LBP, financing is available under “5-6-7-8” concessionary terms²⁵. For these reasons, the rating for financial risks to sustainability is likely (L).
68. Socioeconomic risks to sustainability: The LCUTS Project appear to have excellent relationships with all stakeholders that are mentioned in Section 3.3.5. However, the COVID-19 pandemic has reduced ridership on most public transport, reducing fare revenue of all public transport routes. As such, the appetite of bus, jeepney and fleet owners remains depressed until ridership does rise. Some of the stakeholders had mentioned that ridership has risen to 50% as of late October 2020, giving some hope that public transport ridership will continue towards 100% occupancy rates and an improved economic status of public utility vehicle owners to modernize to EVs. Socioeconomic risks to sustainability is rated as moderately likely (ML).
69. Institutional framework and governance risks: The GoP with its PUVMP and directives for the modernization of public transport vehicles in the Philippines are placing regulatory pressure on bus, jeepney and fleet owners to modernize and for all LGUs to develop their Local Public Transport Route Plan. In addition, there are a number of LGUs of secondary cities as well as Greater Manila who have plans for greening urban transport in parallel to vehicle modernization under the PUVMP. There are higher risks to Project sustainability from a governance perspective, consisting of low capacities at the LGU levels to plan and implement green urban transport plans. There are also expected management personnel shortages within DoTr to manage a larger LCT program. As such, institutional framework and governance risks to sustainability is rated as moderately likely (ML).
70. Environmental risks to sustainability: One of the main drivers of the LCUTS Project is to increase the use of LCT which has significant benefits to urban environmental quality. With all Project inputs being geared towards reducing GHG emissions with collateral benefits of improved local air quality and living conditions, environmental risks to sustainability of this Project are viewed to be insignificant. This would result in a rating of environmental risks to sustainability as likely (L).

²⁵ The fleet or vehicle owner would need to have 5% equity, pay 6% interest over 7 yrs and Php 80,000 subsidy. EVAP understands that this subsidy has recently increased in Php 160,000 to keep up with the rising costs of EVs.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

71. There were significant delays immediately after the LCUTS ProDoc was signed in November 2017, resulting in a loss of 22 months. These delays consisted of:
 - the loss of the first LCUTS NPD in April 2018;
 - search for a second NPD who started in May 2018;
 - recruitment of the PMU resulting UNDP and part-time staff managing LCUTS Inception phase;
 - the Inception Workshop delayed until December 2018;
 - the dissolving of the Project’s counterpart unit, ESITU (within DOTr) in 2018, making counterpart management arrangements with the LCUTS Project more difficult;
 - full PMU staffing by 3Q of 2019 with a full-time project manager, component leads and administrative staff.
72. LCUTS has been further delayed by the COVID-19 pandemic in March 2020, reducing demand for public transport, changing the economics of electric utility vehicles, and slowing down GoP initiatives to modernize public utility vehicles in the Philippines. During October and November 2020, public transport ridership rates have risen to about 50%, re-kindling the interest of DBP and LBP and the private sector in the modernization of public utility vehicles.
73. Notwithstanding the aforementioned delays and setbacks on the LCUTS Project since November 2017, ownership of the LCUTS Project by the GoP appears strong. This is indicated by a fairly active Project Board whose members are actively engaged, notably the private sector in their own EV deployment initiatives and the planning of green urban transport projects within several LGUs throughout the Philippines. There are also several technical working groups reviewing policies and incentive programs that will serve to contribute to an enabling environment for green urban development and EV deployment for public utility vehicles.
74. In consideration of the progress to date and the actual EOP date of 16 November 2021, the LCUTS Project has less than one year remaining to achieve its important objective level target of 52,959 tCO₂ of emission reductions (over the lifetime of the technology). Given the current status on progress and time remaining, it is highly unlikely that this objective-level target will be achieved as well as targets for other outputs and outcomes where there are ongoing activities. This includes policies, programs and training all related to green urban development, low carbon transport and private sector participation and investment. While all these ongoing activities eventually lead towards generation of transport-related GHG emission reductions, the timeframe of these activities to contribute towards the 52,959 tCO₂ from LCUTS is not clear and likely more than one year. As such, the Project is in need of an extension, provided that a refreshed approach is adopted to meet the GHG emissions reduction target over the next 1 year plus the requested LCUTS extension time.
75. A refreshed LCUTS approach needs to re-focus its efforts to generate GHG emission reductions from EVs by facilitating EV investments with DBP and other banks managing PUVMP funds, and having operational EVs displacing fossil-fueled vehicles. Considering that 86 to 460 EVs (consisting of e-commuter buses and e-jeeps) are required to generate the 52,959 tCO₂ target, this target is achievable and its achievement could be considerably accelerated if the PMU strengthens its outreach

to transport cooperatives and the private sector throughout the Philippines. This should result in more EV investments and GHG emission reductions realized. Details of this suggested outreach are provided in Section 4.2.

76. Table 4 provides a summary of the achievements and the MTR ratings for the LCUTS Project.

Table 4: MTR Ratings & Achievement Summary Table for “LCUTS” in the Philippines

Measure	MTR Rating ²⁶	Achievement Description
Project Formulation		Design well laid out in PRF complete with SMART indicators. The only issue has been the need to combine Outcomes 3.1 and 3.2 into one Outcome 3 (which has been done by the PMU for ease of monitoring)
	Stakeholder Participation Rating: 5	A wide spectra of stakeholders was consulted during the PPG phase consisting of DOTr, other relevant government agencies, financial institutions, EV private sector, and civil society. GoP ownership of LCUTS is strong
Progress Towards Results	Objective Achievement Rating: 2	No progress on objective level targets since the Project has experienced a number of unfortunate circumstances (see Para 71) resulting in a loss of more than 22 months (excluding the pandemic of 2020) and only 5 months of the effective implementation.
	Outcome 1 Achievement Rating: 3	Despite ongoing work within this Outcome, the timeline is uncertain as to when these policies and plans will result in GHG emission reductions from EV deployment.
	Outcome 2 Achievement Rating: 3	Despite ongoing work with LGUs to develop green urban transport plans, the timeline and pathway to implementing these plans is not clear. In addition, many of the LGUs do not have the capacity for planning green urban transport
	Outcome 3 Achievement Rating: 2	Little if any progress despite private sector participation on the project. Issues stem from the lack of awareness amongst transport cooperatives and private sector of the strong EV economics and performance.
Project Implementation & Adaptive Management	Implementation Approach Rating: 3	Project implementation has been a number of unfortunate circumstances (see Para 71) resulting in a loss of more than 22 months (excluding the pandemic of 2020) and only 5 months of the effective implementation
	Monitoring and Evaluation Rating: 5	Project has produced annual PIRs and quarterly QPRs as well as COVID pandemic surveys, providing evidence of good monitoring and evaluation practices.
	Stakeholder Participation Rating: 5	Stakeholder participation has been strong as evidenced through MTR interviews and participation at PB meetings. This includes the wide spectra of stakeholders including relevant government agencies, financial institutions, private sector and civil society.
Sustainability	Sustainability Rating: 3	Moderately likely rating is mainly due to changing economics and recovery of public transport due to the pandemic. In addition, LGUs have low capacities for managing vehicle modernization under PUVMP
Overall Project Achievement and impact	Rating: 3	Project cannot achieve its target GHG emission reduction of 52,959 tCO ₂ with the one year remaining on LCUTS. With only 5 months of effective implementation, LCUTS has not had the impact 3 years into a 4-year project

²⁶ Evaluation rating indices (except sustainability – see Para 70): 6=Highly Satisfactory (HS): The project has no shortcomings in the achievement of its objectives; 5=Satisfactory (S): The project has minor shortcomings in the achievement of its objectives; 4=Moderately Satisfactory (MS): The project has moderate shortcomings in the achievement of its objectives; 3=Moderately Unsatisfactory (MU): The project has significant shortcomings in the achievement of its objectives; 2=Unsatisfactory (U) The project has major shortcomings in the achievement of its objectives; 1=Highly Unsatisfactory (HU): The project has severe shortcomings in the achievement of its objectives.

4.2 Recommendations

4.2.1 Improving implementation and meeting GHG emission reduction targets

77. Recommendation 1: Request a 30-month extension from UNDP and GEF to utilize remaining LCUTS resources of just over US\$2.0 million to achieve the targeted lifetime incremental GHG emission reduction of 52,959 tCO₂. The plan for a refreshed approach using the remaining 42 months (assuming the approval of the proposed extension is outlined in Para 75). Details of the refreshed approach are provided in the Paras, each containing a recommendation and illustrated on Figure 3. A calculation of the possible number of EVs from a PUVMP investment is provided on
78. Recommendation 2: Setup an enhanced awareness and advocacy programme to strengthen outreach to potential EV investors and operational EV fleets under Output 2.2. This would be the first step towards the PMU adapting their activities to further advance progress towards objective-level GHG emissions reduction target of 52,959 tCO_{2eq}. In particular with Activities 2.2.1 and 2.2.2, the PMU should design a communications strategy that targets potential EV investors and transport cooperatives with information on results and impacts of the advantages of EV usage. The aim of this recommendation should be to catalyse interest on investments in investors public utility EVs. The strategy should:
- target various EV suppliers to allow the Project to provide 3rd party validation of various EV performance data, information vital for investors prior to their consideration of a large EV investment. The performance information to be collected on EV performance (see Recommendation 3 for details of the collection of technical, financial and environmental data of EV performance) should include performance of certain number of existing and new EV fleets (new EV fleets financed by PUVMP through DBP or LBP or existing fleets);
 - be technology-neutral when disseminating EV-related performance information. This activity should work on getting agreements with new and existing EV fleets, and resolving any non-disclosure issues.
79. Recommendation 3: Design a data collection programme for operational EV fleets. This can be achieved by designing and preparing guidelines for a program to collect EV performance data, technical, financial and environmental, that can be housed under a proposed “Center of Excellence” as per Output 2.3. The purpose of the EV data collection guidelines will be to more effectively inform LGUs and other local players on promoting EVs, charging stations and other products and services related to increasing EV deployment. The guidelines for data collection under this programme (with a focus on e-buses and jeepneys due to more PUVMP lending for these vehicles and their larger GHG emission reductions) can include:
- measuring e-bus metrics such as kWh used per kilometer, passenger-kilometer/kWh, km range on one battery charge, operational cost of e-bus, rate of return on an e-bus investment (including battery replacements);
 - measure baseline diesel (or CNG) bus metrics including liters/km, passenger-km/liter fuel used, operational cost of diesel bus, rate of return on a diesel bus investment including EU-3 buses (or as low as EU-1 or less) that are to be modernized under PUVMP. The maintenance costs of these e-bus should also be measured, if available;

Figure 3: LCUTS Activities (assuming a 30-month extension)

Outcomes and Outputs	Agency	2021				2022				2023				2024		Remarks
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Outcome 1: Effective enforcement of policies and support provided for the promotion of low carbon transport	DOTr															
1.1 Developed supportive policy framework and regulations to facilitate the uptake of low carbon transport systems																
1.2 Established coordination mechanism among agencies involved in low carbon transport planning and development																
1.3 Developed Low-Carbon Transport Master Plan																See Recommendation 14
1.4: Developed guidelines for local government units on the approval of related supportive infrastructures (e.g., charging station locations, right-of-way)																
1.5: Approved and implemented low carbon vehicle operators and manufacturers guidelines																
Outcome 2: Adopted and implemented low carbon transport plans and/or programs in major cities	DOTr/LGUs															
2.1: Developed capacity of planning institutions and regulatory agencies																Transport planning firm to assist in building capacity. See Recommendations 2 and 4.
2.2: Completed awareness and advocacy programme																Transport planning firm being recruited by PMU. See Recommendations 2 and 4.
2.3: Established centers of excellence to support local capability and expertise for new applications/ services/products																See Recommendations 3 and 4
2.4: Developed sufficient number of skilled local technicians																See Recommendation 13
Outcome 3.1: Increased private sector participation in the widespread deployment and commercialization of low carbon transport systems	DOTr															
3.1.1: Completed public transport route rationalization assessment and feasibility studies																See Recommendation 8
3.1.2: Developed standard procedures for on-road and laboratory tests of new vehicle fuel technologies																See Recommendation 9
3.1.3: Established and approved EV charging protocol and standardization																See Recommendation 10
Outcome 3.2 Increased private sector investment in low carbon transport systems	LGUs															
3.2.1: Completed and adopted viable business plan to support the wider application of low carbon vehicles																See Recommendation 5
3.2.2: Installed standardized solar EV charging stations in pilot areas and cities																See Recommendation 11
3.2.3: Introduced and operational at least 15-20 new hybrid or EVs for mass transit and AGT system																See Recommendation 12

Intense Activity

Intermittent Activity

- daily GHG emission reductions based on (baseline) normal fossil-fueled bus transport, and e-bus usage accounting for GHG emissions resulting from electricity usage from a fossil-fueled power station.
80. Recommendation 4: Implement enhanced awareness and advocacy programme under Output 2.2 using data collected for operational EV fleets. Using the framework in Recommendation 3, implement the data collection framework for operational EV fleets as a part of the enhanced awareness and advocacy programme setup in Recommendation 2. This should be done in a manner that can optimize outreach to potential investors in EV fleets (eligible under the PUVMP) and socially markets EVs to the general public. This information can then be housed under a “center of excellence” (Output 2.3) that focuses on potential EV investors and operational EV fleets. With the available information and linking potential investors with financial institutions such as LBP and DBP, both transport cooperatives and the private sector should have more confidence in considering and executing investments in EVs as a part of the PUVMP:
- the PMU should work closely with the financial intermediaries of PUVMP, namely DBP and LBP, who can advise on transport cooperatives and other private entities who have expressed an interest in loans for modernizing their fleets or who would be willing to participate in EV performance data collection;
 - existing operational EV fleets whose performance information is to be collected under Output 2.2 and housed under Output 2.3, should include all EV fleets working in the Philippines. In other words, the EV fleets should not only include the LGUs with whom the Project is working, it should also consider all other EV fleets that are operational in the Philippines including new EV fleets financed by PUVMP through DBP or LBP or existing fleets such as GET e-buses or the fleets at General Santos City;
 - collecting and compiling all performance information into a user-friendly format that can be disseminated effectively to reach potential investors that would include private sector and transport cooperatives who are under PUVMP directives to modernize their fleets. Modalities for the effective dissemination of this information should be considered including posting on an LUCTS website, a transport cooperatives website, workshops and seminars, follow-up consultations with key stakeholders and other media.
81. Recommendation 5: Assist and facilitate the development of viable business plans for private sector and transport cooperatives as a part of Output 3.2.1. The PB should review the targets for Outcome 3.1 (2 bankable business plans) and Outcome 3.2 (3 additional investors and an additional US\$12.5 million of LCT investments by the EOP) to ensure that these are still achievable:
- Activities to deliver bankable business plans and additional private sector investment will build off the dissemination efforts of Output 2.3 (Recommendation 4) that will bring forward and identify potential key investors to modernizing public utility vehicles, particularly those required for public transport, e-buses and e-jeepneys;
 - Work to deliver bankable business plans will be done in close collaboration with DBP, LBP and other intermediary banks delivering PUVMP loans;
 - Further assistance can be offered through the Project to develop business models that match investments with investment options, and to build the capacity of DBP and LBP to improve their abilities to evaluate and appraise LCT investments and streamlining LCT approval applications;

- Care should be exercised to procure charging stations that have optimal charging times, and have connectors that can service several types of EV models either through AC or DC. This will allow these charging stations possibly to be used for charging other EVs which can result in additional revenue for the owner of the charging stations.

With strengthened outreach resulting in the availability of improved operational performance and impacts (socio-economic, financial and environmental) and increased investor confidence with transport cooperatives and the private sector in EV investments, these recommendations aim to result in an outcome of a critical mass of EV investments on PUVMP and target GHG emission reductions for LCUTS achieved.

82. *Recommendation 6: Recruit a part-time international CTA to provide strategic guidance to the PMU and key LCUTS stakeholders.* One of the advantages of GEF projects is its provision of international technical assistance which may prove to be useful in a country such as the Philippines. This CTA can bring in best international practices from other low carbon transport projects globally with a fresh perspective. This person can be hired on a short-term basis to be called when required. As such, the cost of having this CTA would be valuable but not be too prohibitive.

4.2.2 Improving monitoring and evaluation

83. *Recommendation 7: Build off experience of Recommendation 4 to improve the monitoring and evaluation of new EV fleets financed under PUVMP, and other infrastructural investments related to green e-mobility such as “green boulevards”.* The e-bus metrics defined under Recommendation 3 only account for GHG emission reductions resulting from the fuel switch from diesel (or CNG) to electricity. In addition to the e-bus metrics being measured in Recommendation 4 (using the e-bus metrics defined under Recommendation 3), the PMU and various central government agencies should be open to expanding monitoring and evaluation of other green interventions that would only add to the environmental benefits of EVs financed by PUVMP through DBP and LBP including:

- additional conveyance efficiencies realized from dedicated bus lanes;
- additional conveyance efficiencies realized from parking restrictions and synchronized signaling;
- transport modes switches from private cars to public transport or and NMV modes of transport.

While these actions will add GHG emission reductions to EV deployment, the calculation of GHG emission reductions will require dedicated resources for surveys to be conducted. For conveyance efficiencies resulting from dedicated bus lanes, parking restrictions and synchronize signalling, operational data from the EVs plying the route can be reviewed for reduced energy consumption. Transport modal switches, however, will require a survey specifically required for a particular situation. For example, a park-and-ride facility to be set up at the terminus's a particular EV route where each car could represent a petrol savings and GHG emission reduction for each vehicle parked. Due to the numerous activities to expanding monitoring and evaluation of other green interventions that would only add to the environmental benefits of EVs financed by PUVMP, the PMU should also have discussions with the Project Board of which government agencies should spearhead this effort. Since DENR is the agency tasked with reporting national GHG emissions, they could either take a lead or provide guidance of how this improved monitoring and evaluation initiative can be launched.

4.2.3 Correcting project design

84. *Recommendation 8: Project Results Frameworks (PRFs) should be setup in a manner that can be easily implement, monitored and evaluated by the PMU, the counterpart agency, oversight managers at UNDP, and GEF.* While the PRF for LCUTS has been complimented for the economic language of its outcome, indicators and targets (see Para 34), there is no need for separate Outcomes 3.1 and 3.2. These could have easily been subsumed into one outcome with one budget, under an outcome that could have read “increased private sector participation and investment in LCT systems” with 3 to 4 indicators for monitoring the success of the outcome (and note that the PMU has already done this in their 2020 3Q QPR). With most PMUs being overworked or less effective in the UNDP-GEF system, there is great value in the simplification of the PRF which minimizes the efforts of the PMU.

4.2.4 Recommendations and proposals for future directions underlining main objectives

85. The following recommendations provided in the following section are to be undertaken once Recommendation 5 as described in Para 81 (to assist and facilitate the development of viable business plans for private sector and transport cooperatives) and should result in the sustained growth of EV investments and EV fleet operations. More tangible examples of operational EV fleets (complete with documented performance and impacts) should provide more purpose to the other components and outputs of LCUTS. This would also increase demand for bankable business plans for EV investment (under Component 3), followed by many of the other activities within Components 1 and 2 which will have more purpose for implementation including the certification of training institutes, development of LCT plans with LGUs, and the strengthening of LCT policies. The following recommendations are in no particular order. These recommendations can be implemented when the proper conditions are in place (such as a sufficient number of EVs operating with maintenance personnel on standby awaiting guidelines for maintaining EVs and charging stations).
86. *Recommendation 9: Continue with delivery of Output 3.1.1, the public transport route rationalization assessment and feasibility studies that is ongoing with a number of LGUs.* There is ongoing Project assistance being provided that is viewed to be mainly assisting investors and fleet operators to conduct feasibility and economic analyses for EVs along existing identified routes. This work is somewhat parallel to the preparation of EV performance data for other fleets mentioned in Recommendation 4. In discussions with Baguio City, Santa Rosa, and Iloilo city (all of whom are working with the LCUTS Project):
- the EV performance information being generated from other EV fleets under Recommendation 4 should accelerate the familiarization of transport cooperatives and the private sector to prepare bankable business plans for EVs;
 - this would facilitate Recommendations 5 followed by the actual investment in EVs along their main corridors;
 - route rationalization assistance from the Project should be accompanied by suggestions for additional holistic green urban planning. This could include the development of green boulevards complete with increased NMV transport modes, parking restrictions, park-and-ride facilities, synchronized signalling, dedicated bus lanes, enhanced safe road crossings for pedestrians and cyclists and an introduction to Transit Oriented Development (TOD)²⁷.

²⁷ Transit Oriented Development (TOD) can be defined as mixed-use community with an average 1 km walking distance of a transit stop and a core commercial area. TOD's mix of residential, retail, office, open space and public uses in a walkable

87. Recommendation 10: Develop standard procedures for on-road and laboratory tests of new EV technologies as a part of Output 3.1.2. This recommendation cannot be implemented until there is a critical mass of new operational EV fleets and sufficient experience gained on the performance of these EV fleets. Work on developing the standard procedures is not anticipated to commence until 2022 at the earliest. Before involving the Bureau for Products and Standards, experts in the Philippines will be required to survey low carbon vehicle manufacturers and the products available on the Philippines, review how many of these vehicles comply with existing domestic standards and testing methods, identify gaps, and upgrade existing domestic testing methods to international standards.
88. Recommendation 11: Develop and approve an established EV charging protocol and standardization as a part of Output 3.1.3. Similar to Recommendation 9, this recommendation cannot be implemented until there is a critical mass of new operational EV fleets and several charging stations from where experience can be gathered on these charging stations for their standardization. An assumption is made that the existing charging stations on which protocols and standardizations will be based, will actually be able to charge several different types of EV models.
89. Recommendation 12: Installed standardized solar EV charging stations in pilot areas and cities as a part of Output 3.2.2. Delivering this output is important and should start in collaboration with DOE’s Energy Utilization and Management Bureau (EUMB) as soon as a pilot site or city can be identified for a techno-economic viability study. The importance of providing solar EV charging stations is related to demonstrating the generation of additional GHG emission reductions and reducing energy costs. Delivery of this output can be started immediately as long as there is sufficient time to design, implement, generate solar power for EVs, and to collect data on the solar power scheme during the extended duration of the LCUTS Project. Battery storage systems can be considered when economical.
90. Recommendation 13: Introduce at least 10 operational and new hybrid or EVs for mass transit in pilot cities as a part of Output 3.2.3. This output will be delivered first through a feasibility study and in parallel with Recommendation 5 and close collaboration with LBP and DBP. If the information generated in Recommendation 4 is effective and catalyzes a high volume of PUVMP applications, there would be a stronger likelihood of generating new models of EVs for the Philippines for public transport. The business consulting firm currently being recruited can help coordinate delivery of this output with the activities in Recommendations 4 and 5.
91. Recommendation 14: Undertake training programme to develop a sufficient number of skilled local technicians to provide maintenance for EV fleets. This recommendation is ongoing with current discussions with TESDA to design a program to update the skills of EV technicians (for both vehicles and charging infrastructure) to a national standard that is based on best international practices.
92. Recommendation 15: Continue with ongoing low carbon transport policy development within Outcome 1. The intensification of the work in this Outcome, however, will not be until the latter

environment making it convenient for residents and employees to travel by transit, bicycle, foot or car. The World Bank has an excellent reference on TOD under its 2021 report "Transit Oriented Developments Implementation Resources and Tools", available on:

<http://documents1.worldbank.org/curated/en/261041545071842767/pdf/Transit-Oriented-Development-Implementation-Resources-and-Tools-Second-Edition.pdf>

portions of 2022 when the lessons learned from the operation of several PUVMP financed EV fleets can inform policies and standards. This would also include Outputs 1.4 and 1.5 where operational lessons from EV fleets and charging stations would inform guidelines for LGUs on approval of EV supportive infrastructure, and guidelines for low carbon vehicle operators and manufacturers.

93. Recommendation 16: Document the process of engaging the LGUs leading to the adoption and implementation of low carbon transport plans and programs including actual deployment of EV/hybrid public transport fleets. This recommendation, to be addressed on the LGU Engagement Strategy developed and approved by the PB, will make available emerging best practice and lessons from Project outputs that are taken from pilot LGUs, can be replicated in other LGUs nationwide, and will support the low carbon transport policies being developed.

APPENDIX A – MISSION TERMS OF REFERENCE FOR LCUTS PROJECT MTR

1. BACKGROUND

The project was designed to create an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles) in the Philippines. The project aims to do this through 1) effective enforcement of policies and support provided for the promotion of low carbon modes of transport; 2) adopting and implementing low carbon transport plans and/or programs in major cities; 3) increasing private sector participation in the widespread deployment and commercialization of low carbon transport systems; and 4) increasing private sector investment in low carbon transport systems. The project is being implemented through the Department of Transportation under a National Implementation Modality.

2. SCOPE OF WORK, RESPONSIBILITIES AND DESCRIPTION OF THE PROPOSED WORK

The MTR will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR will also review the project’s strategy and its risks to sustainability.

The findings shall be acted upon by UNDP, DoTr, and other government agencies and stakeholders. The findings and any other relevant lessons and recommendations is expected to contribute to the internal programming of UNDP and to existing and emerging national policy considerations, including but not limited to the enhancement and eventual implementation of the Nationally Determined Contributions (NDCs) and emerging considerations for greening the recovery of the Philippines from COVID-19.

The MTR report must provide evidence-based information that is credible, reliable and useful.

The MTR team will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP), the Project Document, project reports including annual PIRs, project budget revisions, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based review. The MTR team will review the baseline GEF focal area Core Indicators/Tracking Tools submitted to the GEF at CEO endorsement, and the midterm GEF focal area Core Indicators/Tracking Tools that must be completed before the data collection begins. The MTR team is expected to follow a collaborative and participatory approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), the Nature, Climate and Energy (NCE) Regional Technical Advisor, direct beneficiaries, and other key stakeholders.

Engagement of stakeholders is vital to a successful MTR. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to the Project Management Unit, key officials from the Department of Transportation, programme staff from UNDP, executing agencies, senior officials and task team/ component leaders, key experts and consultants in the subject area, Project Board, project stakeholders, academia, local government and CSOs, etc. Given travel restrictions and the general situation under the pandemic, travels are discouraged and data collection methods should be replaced by appropriate means to do it remotely. The UNDP Independent Evaluation Office (IEO) has released [a decentralized evaluation guidance note](#) highlighting the challenges confronting evaluations at this time and potential ways to overcome them, which can be considered for this MTR.

The specific design and methodology for the MTR should emerge from consultations between the MTR team and the above-mentioned parties regarding what is appropriate and feasible for meeting the MTR purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The MTR team must use gender-

responsive methodologies and tools and ensure that gender equality and women’s empowerment, as well as other cross-cutting issues and SDGs are incorporated into the MTR report.

The final methodological approach including interview schedule, respondents, and data sources, among others, to be used in the MTR must be clearly outlined in the Inception Report and be fully discussed and agreed between UNDP, stakeholders and the MTR team.

The final MTR report must describe the full MTR approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review.

The MTR team will assess the following four categories of project progress. See the [Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](#) for extended descriptions.

i. Project Strategy

Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?
- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
- Review the extent to which relevant gender issues were raised in the project design. See Annex 9 of [Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](#) for further guidelines.
- Were relevant gender issues (e.g. the impact of the project on gender equality in the programme country, involvement of women’s groups, engaging women in project activities) raised in the Project Document?
- If there are major areas of concern, recommend areas for improvement.

Results Framework/Logframe:

- Undertake a critical analysis of the project’s logframe indicators and targets, assess how “SMART” the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Are the project’s objectives and outcomes or components clear, practical, and feasible within its time frame?
- Examine if progress so far has led to or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women’s empowerment, improved governance etc.) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART ‘development’ indicators, including sex-disaggregated indicators and indicators that capture development benefits.

ii. Progress Towards Results

Progress Towards Outcomes Analysis:

- Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the [Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](#); colour code progress in a “traffic light system” based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as “Not on target to be achieved” (red).

Table. Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets)

Project Strategy	Indicator ²⁸	Baseline Level ²⁹	Level 1 st in PIR (self-reported)	Midterm Target ³⁰	End-of-project Target	Midterm Level & Assessment ³¹	Achievement Rating ³²	Justification for Rating
Objective:	Indicator (if applicable):							
Outcome 1:	Indicator 1:							
	Indicator 2:							
Outcome 2:	Indicator 3:							
	Indicator 4:							
	Etc.							
Etc.								

Indicator Assessment Key

• Green = Achieved	• Yellow = On target to be achieved	• Red = Not on target to be achieved
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In addition to the progress towards outcomes analysis:

- Compare and analyse the GEF Tracking Tool/Core Indicators at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

iii. Project Implementation and Adaptive Management**Management Arrangements:**

- Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.
- Do the Executing Agency/Implementing Partner and/or UNDP and other partners have the capacity to deliver benefits to or involve women? If yes, how?
- What is the gender balance of project staff? What steps have been taken to ensure gender balance in project staff?

²⁸ Populate with data from the Logframe and scorecards

²⁹ Populate with data from the Project Document

³⁰ If available

³¹ Colour code this column only

³² Use the 6 point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU

- What is the gender balance of the Project Board? What steps have been taken to ensure gender balance in the Project Board?

Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
- Examine the use of the project’s results framework/logframe as a management tool and review any changes made to it since project start.

Finance and co-finance:

- Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out by the Commissioning Unit and project team, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Sources of Co-financing	Name of Co-financer	Type of Co-financing	Co-financing amount confirmed at CEO Endorsement (US\$)	Actual Amount Contributed at stage of Midterm Review (US\$)	Actual % of Expected Amount
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	• TOTAL	•	•	•

- Include the separate GEF Co-Financing template (filled out by the Commissioning Unit and project team) which categorizes each co-financing amount as ‘investment mobilized’ or ‘recurrent expenditures’. (This template will be annexed as a separate file.)

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?
- Review the extent to which relevant gender issues were incorporated in monitoring systems. See Annex 9 of [Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](#) for further guidelines.

Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?

- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?
- How does the project engage women and girls? Is the project likely to have the same positive and/or negative effects on women and men, girls and boys? Identify, if possible, legal, cultural, or religious constraints on women’s participation in the project. What can the project do to enhance its gender benefits?

Social and Environmental Standards (Safeguards)

- Validate the risks identified in the project’s most current SESP, and those risks’ ratings; are any revisions needed?
- Summarize and assess the revisions made since CEO Endorsement/Approval (if any) to:
 - The project’s overall safeguards risk categorization.
 - The identified types of risks³³ (in the SESP).
 - The individual risk ratings (in the SESP).
- Describe and assess progress made in the implementation of the project’s social and environmental management measures as outlined in the SESP submitted at CEO Endorsement/Approval (and prepared during implementation, if any), including any revisions to those measures. Such management measures might include Environmental and Social Management Plans (ESMPs) or other management plans, though can also include aspects of a project’s design; refer to Question 6 in the SESP template for a summary of the identified management measures.

A given project should be assessed against the version of UNDP’s safeguards policy that was in effect at the time of the project’s approval.

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly rated PIRs, if applicable?)
- Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications & Knowledge Management:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project’s progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.
- List knowledge activities/products developed (based on knowledge management approach approved at CEO Endorsement/Approval).

iv. Sustainability

³³ Risks are to be labeled with both the UNDP SES Principles and Standards, and the GEF’s “types of risks and potential impacts”: Climate Change and Disaster; Disadvantaged or Vulnerable Individuals or Groups; Disability Inclusion; Adverse Gender-Related impact, including Gender-based Violence and Sexual Exploitation; Biodiversity Conservation and the Sustainable Management of Living Natural Resources; Restrictions on Land Use and Involuntary Resettlement; Indigenous Peoples; Cultural Heritage; Resource Efficiency and Pollution Prevention; Labor and Working Conditions; Community Health, Safety and Security.

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Register are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

- What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project’s outcomes)?

Socio-economic risks to sustainability:

- Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long-term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

- Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

- Are there any environmental risks that may jeopardize sustenance of project outcomes?

Evaluative Questions

Following the above assessment’s outline (i.e. Project Strategy, Progress Towards Results, Project Implementation & Adaptive Management, and Sustainability), the MTR should also be able to answer the following evaluative questions³⁴:

Project Strategy

- To what extent is the project aligned with and responsive to national development needs and priorities, emerging conditions such as COVID-19, and international development goals such as the SDGs or the Paris Agreement, among others? How should it adapt to better position itself in support of these priorities?
- To what extent is the project responsive to the needs of its target beneficiaries?

Progress Towards Results

- To what extent is the project on track to achieve planned results (intended and unintended, positive and negative)?
- To what extent is low carbon, climate action, and sustainable development mainstreamed in the design, implementation, and monitoring and evaluation of the project? How about emerging needs such as COVID-19?

Project Implementation & Adaptive Management

³⁴ These evaluative questions are also conveniently aligned with the Organization for Economic Cooperation and Development – Development Assistance Committee (OECD-DAC) criteria (Relevance, Effectiveness, Efficiency, and Sustainability). Note that the questions are not exhaustive and may change. The set of evaluation questions shall be finalized through the inception report.

- To what extent has the project mobilized and used its structure and resources in support of achieving its intended results? How sufficient are current systems in supporting effective coordination and implementation among agencies and other stakeholders to deliver intended results?
- To what extent has the project utilized the comparative advantages of partner and agency capacities in its activities?

Sustainability

- Are there social or political risks that may jeopardize the sustainability of the project’s results?
- Is there adequate ownership of project results by key stakeholders (e.g. government agencies, LGUs, private sector, etc.)?
- How likely are the current strategies and outputs to be continued and adopted in the succeeding years of the project? Is a well-designed continuity strategy in place to ensure the smooth transition of the project in a new normal?

Conclusions & Recommendations

The MTR team will include a section in the MTR report for evidence-based conclusions, in light of the findings.

Additionally, the MTR consultant/team is expected to make recommendations to the Project Team. Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report’s executive summary. See the [Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](#) for guidance on a recommendation table.

The MTR team should make no more than 15 recommendations total.

Ratings

The MTR team will include its ratings of the project’s results and brief descriptions of the associated achievements in an MTR Ratings & Achievement Summary Table in the Executive Summary of the MTR report. See Annex E for ratings scales. No rating on Project Strategy and no overall project rating is required.

Table. MTR Ratings & Achievement Summary Table for Promotion of Low Carbon Urban Transport Systems in the Philippines

• Measure	• MTR Rating	• Achievement Description
• Project Strategy	• N/A	•
• Progress Towards Results	• Objective Achievement Rating: (rate 6 pt. scale)	•
	• Outcome 1 Achievement Rating: (rate 6 pt. scale)	•
	• Outcome 2 Achievement Rating: (rate 6 pt. scale)	•
	• Outcome 3 Achievement Rating: (rate 6 pt. scale)	•
	• Etc.	•
• Project Implementation & Adaptive Management	• (rate 6 pt. scale)	•
• Sustainability	• (rate 4 pt. scale)	•

3. Expected Outputs and deliverables

The total duration of the MTR will be approximately 40 working days over a time period of 9 weeks and shall not exceed five months from when the consultant(s) are hired. Assuming a start date of 15 September 2020, the tentative MTR timeframe is as follows:

ACTIVITY	NUMBER OF WORKING DAYS	COMPLETION DATE
Document review and preparing MTR Inception Report (MTR Inception Report due no later than 2 weeks before the MTR mission)	4 days (recommended: 2-4 days)	28 September 2020
MTR mission: stakeholder meetings, interviews, data collection	15 days (recommended: 7-15 days)	6 November 2020
Presentation of initial findings- last day of the MTR mission	1 day	6 November 2020
Preparing draft report (due within 3 weeks of the MTR mission)	10 days (recommended: 5-10 days)	20 November 2020
Finalization of MTR report/ Incorporating audit trail from feedback on draft report (due within 1 week of receiving UNDP comments on the draft)	4 days (recommended: 3-4 days)	10 December 2020

The deliverables are:

#	Deliverable	Description	Timing	Responsibilities
1	MTR Inception Report	MTR team clarifies objectives and methods of Midterm Review	No later than 2 weeks before the MTR mission	MTR team submits to the Commissioning Unit and project management
2	Presentation	Initial Findings	End of MTR mission	MTR Team presents to project management and the Commissioning Unit
3	Draft MTR Report	Full draft report (using guidelines on content outlined in Annex B) with annexes	Within 3 weeks of the MTR mission	Sent to the Commissioning Unit, reviewed by RTA, Project Coordinating Unit, GEF OFP
4	Final Report*	Revised report with audit trail detailing how all received comments have (and have not) been addressed in the final MTR report	Within 1 week of receiving UNDP comments on draft	Sent to the Commissioning Unit

*The final MTR report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

4. Institutional arrangements/reporting lines

The principal responsibility for managing this MTR resides with the Commissioning Unit, which is the UNDP Philippines Country Office. The MTR shall be managed by the M&E Focal of the Country Office together with the Climate Action Programme Team.

An Evaluation Reference Group (ERG) shall be formed composed of principal representatives from project stakeholders (government partners, donor, representatives from the Project Board) that will perform an advisory role throughout the process, ensure that evaluation standards as provided by the United Nations Evaluation Group (UNEG) are adhered to, including safeguarding transparency and independence, advise on the relevance and appropriateness of questions, and support and provide input into the development of the management responses and key actions.

The Commissioning Unit will contract the consultants and ensure appropriate management of obligations for the MTR team and will provide an updated stakeholder list with contact details (phone and email). The Project Team will be responsible for liaising with the MTR team to provide all relevant documents, set up stakeholder interviews, and arrange other activities related to the MTR process.

A team of two independent consultants will conduct the MTR – one international consultant to function as review lead/coordinator (with experience and exposure to projects and evaluations in other regions globally) and one national consultant to function as technical expert.

1. The review lead/coordinator (international consultant) will mainly be responsible for initiating and managing the MTR process and leading the overall design and writing of the MTR, maintaining the integrity and independence of the process, and ensuring that the MTR translates into a relevant and actionable product for organizational and national results-based management and development.

2. The technical expert (national consultant) will provide support to the review lead/coordinator and serve as the subject matter expert at the national level. S/he should have a strong background on the subject and will mainly be responsible for studying the dynamics among stakeholders and how it affects project performance, progress and results achievement, and potential development pathways for the country, highlighting gains, uncovering gaps, and proposing appropriate corrective measures that the project can take.

The consultants cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project’s related activities.

5. Experience and qualifications

The selection of consultants will be aimed at maximizing the overall “team” qualities in the following areas. Credentials are given corresponding points to be considered in the technical evaluation of interested candidates (the maximum obtainable points are 100, passing score is 70).

Academic Qualifications:

At least a master’s degree in economics, statistics, social sciences, development studies, engineering, management, or other closely related field (Master’s degree – 14 points; Doctorate degree – 20 points)

II. Years of experience:

At least 12 years of relevant experience with results-based management evaluation methodologies; application of SMART indicators and reconstruction or validation of baseline scenarios; remote evaluation and project evaluation/review experiences within the United Nations system will be considered an asset (12 years – 14 points; 13-14 years – 16 points; 15-17 years – 18 points; 18 years and above - 20 points)

At least 5 years of specific experience in conducting gender-sensitive evaluations and analyses (5 years – 14 points; 6-7 years – 16 points; 8-9 years – 18 points; 10 years and above - 20 points)

At least 10 years of relevant experience and demonstrated competence in adaptive management, as applied to Climate Change, Energy, Infrastructure, Transport, and/or Technology (i.e. climate change mitigation, decarbonization/emissions reduction, technology incubation and transfer, commercialization, market

development, and sustainability in relation to the transportation sector); (10 years – 14 points; 11-12 years – 16 points; 13-14 years – 18 points; 15 years and above - 20 points)

Experience working in at least 7 evaluations within the Asia-Pacific region; (7 evaluations – 7 points; 8-9 evaluations – 8.5 points; 10 evaluations and above - 10 points)

III. Language:

Fluency in written and spoken English. (10 points)

6. Payment Modality

Payment to the individual contractor will be made based on the actual number of days worked, deliverables accepted and upon certification of satisfactory completion by the manager.

- 20% payment upon satisfactory delivery of the final MTR Inception Report and approval by the Commissioning Unit
- 40% payment upon satisfactory delivery of the draft MTR report to the Commissioning Unit
- 40% payment upon satisfactory delivery of the final MTR report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

Criteria for issuing the final payment of 40%³⁵:

- The final MTR report includes all requirements outlined in the MTR TOR and is in accordance with the MTR guidance.
- The final MTR report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other MTR reports).
- The Audit Trail includes responses to and justification for each comment listed.

In line with the UNDP’s financial regulations, when determined by the Country Office and/or the consultant that a deliverable or service cannot be satisfactorily completed due to the impact of COVID- 19 and limitations to the evaluation, that deliverable or service will not be paid.

Due to the current COVID-19 situation and its implications, a partial payment may be considered if the consultant invested time towards the deliverable but was unable to complete to circumstances beyond his/her control.

³⁵ The Commissioning Unit is obligated to issue payments to the MTR team as soon as the terms under the ToR are fulfilled. If there is an ongoing discussion regarding the quality and completeness of the final deliverables that cannot be resolved between the Commissioning Unit and the MTR team, the Regional M&E Advisor and Vertical Fund Directorate will be consulted. If needed, the Commissioning Unit’s senior management, Procurement Services Unit and Legal Support Office will be notified as well so that a decision can be made about whether or not to withhold payment of any amounts that may be due to the evaluator(s), suspend or terminate the contract and/or remove the individual contractor from any applicable rosters. See the UNDP Individual Contract Policy for further details:

https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Individual%20Contract_Individual%20Contract%20Policy.docx&action=default

APPENDIX B – MISSION ITINERARY (FOR NOVEMBER 2020)

#	Activity	Stakeholder involved	Place
27 October 2020 (Thursday)			
	Meeting with UNDP CO	UNDP	Virtual via Zoom meeting
4 November 2020 (Wednesday)			
1	LCUTS MTR Inception Meeting	UNDP Country Office Ms. Floradema Eleazar, Ms. Gwyneth Anne Palmos, & Mr. Paul Villarico (UNDP-CO) & Mr. Mario Tercero (LCUTS Project Manager)	Virtual via Zoom meeting
16 November 2020 (Monday)			
2	LCUTS MTR Interview Meeting	UNDP-CO Ms. Floradema Eleazar, Ms. Marian Valera-Co, Ms. Gwyneth Anne Palmos, & Mr. Paul Villarico	Virtual via Zoom meeting
17 November 2020 (Tuesday)			
3	LCUTS MTR Interview Meeting	Clean Air Asia, Ms. Glynda Bathan-Baterina,	Virtual via Zoom meeting
4	LCUTS MTR Interview Meeting	Global Electric Transport (GET), Mr. Freddie Tinga,	Virtual via Zoom meeting
5	LCUTS PMU Meeting	Mr. Mario Tercero-Proj. Manager, Mr. J. Mikhail Nacino-component 1 lead, Ms. Jennifer Sabianan-comp. 2 lead, Ms. Melinda Gabuya, comp. 3 lead, Ms. Karis Vehnel Fonte, M&E	Virtual via Zoom meeting
6	LCUTS PMU Meeting	Mr. Mark Tecderas, PMU Transport Specialist	Virtual via Zoom meeting
19 November 2020 (Thursday)			
7	LCUTS MTR Interview Meeting	Development Bank of the Philippines, Mr. Paul Lazaro, Sr. Vice President	Virtual via Zoom meeting
8	LCUTS MTR Interview Meeting	UNDP Regional Office, Ms. Usha Rao	Virtual via Zoom meeting
9	LCUTS MTR Interview Meeting	Sta. Rosa City LGU, Mr. Ermin Lucino, City Planning & Development Coordinator	Virtual via Zoom meeting
20 November 2020 (Friday)			
10	LCUTS MTR Interview Meeting	Department of Transportation, Asec. Maria Shiela Napalang	Virtual via Zoom meeting
11	LCUTS MTR Interview Meeting	Department of Transportation, Asec. Atty. Mark Steven Pastor	Virtual via Zoom meeting

#	Activity	Stakeholder involved	Place
12	LCUTS MTR Interview Meeting	Electric Vehicles Association of the Philippines (EVAP), Mr. Edmund Arraga-President & Dr. Bienvenido Biona Exec. Dir.	Virtual via Zoom meeting
24 November 2020 (Tuesday)			
13	LCUTS MTR Interview Meeting	Department of Energy, Director Patrick Aquino, EUMB	Virtual via Zoom meeting
25 November 2020 (Wednesday)			
14	LCUTS MTR Interview Meeting	Baguio City LGU, Architect Donna Rillera Tabangin, City Planning and Development Office	Virtual via Zoom meeting
27 November 2020 (Friday)			
15	LCUTS MTR Interview Meeting	National Economic and Development Authority, Asst. Secretary, Mr. Roderick Planta	Virtual via Zoom meeting
1 December 2020 (Tuesday)			
16	LCUTS MTR Interview Meeting	Department of Environment and Natural Resources, Usec. Analiza Rebueta-Teh, GEF Focal Person	Virtual via Zoom meeting
2 December 2020 (Wednesday)			
17	LCUTS MTR Interview Meeting	Iloilo City LGU, Engr. Noel Hechanova, CENRO	Virtual via Zoom meeting
3 December 2020 (Thursday)			
18	LCUTS MTR Interview Meeting	Public Transport Association of General Santos City, Mr. Robert Cang, Chairman, Transport Cooperative	Virtual via Zoom meeting

Total number of meetings conducted: 18

APPENDIX C – LIST OF PERSONS INTERVIEWED

This is a listing of persons contacted in Manila (unless otherwise noted) during the Mid-Term Review Period only. The Evaluation Team regrets any omissions to this list.

Name	Designation	Agency/Organization
Ms. Floradema Eleazar	Team Leader, Climate Action Team	UNDP Philippines
Ms. Marian Theresia Valera Co	Monitoring and Evaluation Analyst, Results Quality Team	UNDP Philippines
Ms. Gwyneth Anne Palmos	Programme Analyst, Climate Action team	UNDP Philippines
Mr. Paul Villarico	Project Associate, Climate Action Team	UNDP Philippines
Ms. Usha Rao	Regional Technical Adviser	UNDP Regional Office Bangkok, Thailand
Mr. Mario Tercero	Project Manager	PMU, Low Carbon Urban Transport Systems Project (LCUTS)
Mr. J. Mikhail Nancino	Component 1 lead	PMU, LCUTS
Ms. Jennifer Sabianan	Component 2 lead	PMU, LCUTS
Ms. Melinda Gabuya	Component 3 lead	PMU, LCUTS
Ms. Karis Vehnel Fonte	Monitoring and Evaluation Associate	PMU, LCUTS
Mr. Mark Tecderas	Transport Specialist	PMU, LCUTS
Mr. Ermin Lucino	Sta. Rosa City Planning & Development Coordinator	Sta Rosa City LGU
Ms. Maria Shiela Napalang	Asst. Secretary, Road Transport Planning and Development	Department of Transportation (DOTr)
Atty Mark Steven Pastor	Asst. Secretary and National Project Director	DOTr & Chair of LCUTS Project Board
Mr. Patrick Aquino	Director, Energy Utilization & Management Bureau	Department of Energy (DOE)
Ms. Glynda Bathan-Baterina	Deputy Executive Director	Clean Air Asia Philippines
Mr. Freddie Tinga	President	Global Electric Transport (GET)
Mr. Paul Lazaro	Sr. Vice President	Development Bank of the Philippines (DBP)
Mr. Edmund Arraga	President	Electric Vehicles Association of the Philippines (EVAP)
Dr. Bienvenido Biona	Executive Director	Electric Vehicles Association of the Philippines (EVAP)
Architect Donna Rillera Tabangin	City Planning and Development Office	Baguio City LGU
Mr. Roderick Planta	Asst. Secretary, Investment Programming Group	National Economic and Development Authority

Ms. Analiza Rebuelta-Teh	Undersecretary and GEF Focal Person	Department of Environment and Natural Resources
Engr. Noel Hechanova	City Environment and Natural Resources Officer	Iloilo City LGU
Mr. Robert Cang	Chairman	Public Transport Association of General Santos City (PTAG)

APPENDIX D – LIST OF DOCUMENTS REVIEWED

1. UNDP Project Document (LCUTS ProDoc)
UNDP Philippines Country Program Document
Project Identification Form
UNDP Evaluation Guidance During COVID 2019
2. Project Inception Report, 2019
3. Project Implementation Review, 2019 and 2020
4. LCUTS Project Board Minutes of Meetings
 - First PB Meeting- 4 February 2019
 - Second PB Meeting-23 August 2019
 - Third PB Meeting-28 November 2019
 - Fourth PB Meeting-10 September 2020
5. LCUTS Annual Progress Report for 2019
6. LCUTS Quarterly Progress Reports
 - a) Third Quarter 2019
 - b) First Quarter 2020
 - c) Second Quarter 2020
 - d) Third Quarter 2020
7. Annual Work Plans for LCUTS Project for: 2019 & 2020

APPENDIX E – TRACKING TOOL



Tracking Tool for Climate Change Mitigation Projects (For Mid-term Evaluation)

Special Notes: reporting on lifetime emissions avoided

Lifetime direct GHG emissions avoided: Lifetime direct GHG emissions avoided are the emissions reductions attributable to the investments made **until the mid-term evaluation**, totaled over the respective lifetime of the investments.

Please refer to the Manual for Calculating GHG Benefits of GEF Projects.

[Manual for Energy Efficiency and Renewable Energy Projects](#)

[Manual for Transportation Projects](#)

For LULUCF projects, the definition of "lifetime direct" applies. Lifetime length is defined to be 20 years, unless a different number of years is deemed appropriate. For emission or removal factors (tonnes of CO₂eq per hectare per year), use IPCC defaults or country specific factors.

General Data	Results at Mid-term Evaluation	Notes
Project Title	Promotion of Low Carbon Urban Transport Systems in the Philippines	
GEF ID	5717	
Agency Project ID	5304	
Country	Philippines	
Region	EAP	
GEF Agency	UNDP	
Date of Council/CEO Approval	May 15, 2014	Month DD, YYYY (e.g., May 12, 2010)
GEF Grant (US\$)	2,639,726	
Date of submission of the tracking tool	January 18, 2021	Month DD, YYYY (e.g., May 12, 2010)
Is the project consistent with the priorities identified in National Communications, Technology Needs Assessment, or other Enabling Activities under the UNFCCC?	1	Yes = 1, No = 0
Is the project linked to carbon finance?	0	Yes = 1, No = 0
Cumulative cofinancing realized (US\$)	1.102	
Cumulative additional resources mobilized (US\$)		additional resources means beyond the cofinancing committed at CEO endorsement

Objective 4: Transport and Urban Systems		
Please specify if the project targets any of the following areas		
Bus rapid transit	0	Yes = 1, No = 0
Other mass transit (e.g., light rail, heavy rail, water or other mass transit; excluding regular bus or minibus)	1	Yes = 1, No = 0
Logistics management	0	Yes = 1, No = 0
Transport efficiency (e.g., vehicle, fuel, network efficiency)	1	Yes = 1, No = 0
Non-motorized transport (NMT)	1	Yes = 1, No = 0
Travel demand management	1	Yes = 1, No = 0
Comprehensive transport initiatives (Involving the coordination of multiple strategies from different transportation sub-sectors)	1	Yes = 1, No = 0
Sustainable urban initiatives	1	Yes = 1, No = 0
Policy and regulatory framework	2	0: not an objective/component 1: no policy/regulation/strategy in place 2: policy/regulation/strategy discussed and proposed 3: policy/regulation/strategy proposed but not adopted 4: policy/regulation/strategy adopted but not enforced 5: policy/regulation/strategy enforced
Establishment of financial facilities (e.g., credit lines, risk guarantees, revolving funds)	0	0: not an objective/component 1: no facility in place 2: facilities discussed and proposed 3: facilities proposed but not operationalized/funded 4: facilities operationalized/funded but have no demand 5: facilities operationalized/funded and have sufficient demand
Capacity building	2	0: not an objective/component 1: no capacity built 2: information disseminated/awareness raised 3: training delivered 4: institutional/human capacity strengthened 5: institutional/human capacity utilized and sustained
Length of public rapid transit (PRT)		km
Length of non-motorized transport (NMT)		km
Number of lower GHG emission vehicles	-	
Number of people benefiting from the improved transport and urban systems	-	
Lifetime direct GHG emissions avoided	-	tonnes CO ₂ eq (see Special Notes above)

APPENDIX F – PROJECT RESULTS FRAMEWORK FOR LCUTS PROJECT FROM NOVEMBER 2017

No changes were made in this PRF with the assumption of a Project extension of 30 months to enable to the PMU to work towards closer achievement of the objective level targets.

This project will contribute to achieving the following Country Programme Indicators: <ul style="list-style-type: none"> Outcome 4. Resilience towards disasters and climate change: Adaptive capacities of vulnerable communities and ecosystems will have been strengthened to be resilient toward threats, shocks, disasters, and climate change. Sub-Outcome 4.3 Environment and Natural Resources Conservation and Protection: By 2018, capacities of national and local government officials and communities to conserve and sustainably manage the country’s environment and natural resources, including biodiversity and sustainable energy sources will be enhanced.
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy
Applicable GEF Strategic Objective and Program: GEF 5 Climate Change Objective 4: Promote energy efficient, low-carbon transport and urban systems
Applicable GEF Expected Outcomes: Sustainable transport and urban policy and regulatory frameworks adopted and implemented, increased investment in less-GHG intensive transport and urban systems, and GHG emissions avoided.
Applicable GEF Outcome Indicators: Number of cities adopting sustainable transport and urban policies and regulations; volume of investment mobilized and tonnes of CO2 equivalent avoided.

Strategy	Objectively Verifiable Indicator			Means of Verification	Critical Assumptions
	Description	Baseline	Target		
Project Objective: Creating an enabling environment for the commercialization of low carbon urban transport systems (e.g., electric and hybrid vehicles) in the Philippines	Incremental direct GHG emissions reduced due to the Project over the technology lifetime, (tCO _{2e})	• 16,054 tCO _{2e} ³⁶	• 69,013 tCO _{2e} ³⁷	Project final and M&E report GHG emissions reduction estimates based on demo and pilot monitoring reports	Strong support from relevant government agencies
	Number of people gainfully employed in the low carbon transport sector ³⁸	• 50	• At least 222	Project survey	
	Number of daily users of new transport options using low carbon transport systems	• 6,500	• At least 20% increase per year	Project survey Operator records	
Component 1: Policy support for the promotion of low carbon modes of transport					

³⁶ GHG emission reduction in the baseline that is contributed by 28 EVs and 20 e-jeepneys within the useful life of 15 years

³⁷ Incremental GHG emission reduction from additional unit of 56 EVs and 40 e-jeepneys within the useful life of 15 years.

³⁸ Estimates based on the Philippine practice in hiring employees of bus operations and gasoline stations

Strategy	Objectively Verifiable Indicator			Means of Verification	Critical Assumptions
	Description	Baseline	Target		
Outcome 1: Effective enforcement of policies and support provided for the promotion of low carbon modes of transport	<ul style="list-style-type: none"> Number of issued policies that support the promotion of low-carbon transport by Year 3 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 4³⁹ 	<ul style="list-style-type: none"> Official Gazette, Project monitoring reports 	<ul style="list-style-type: none"> Proposed changes in policy and inter-agency coordination supported by responsible agencies The regulations on vehicle inspection is in place through PNS
	<ul style="list-style-type: none"> Number of standards promulgated for low-carbon vehicles by Year 3 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 3⁴⁰ 	<ul style="list-style-type: none"> DTI-BPS report Approval memos 	
	<ul style="list-style-type: none"> Executive Order for interagency coordination on low-carbon transport system approved and adopted by EOP 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 1 	<ul style="list-style-type: none"> Official Gazette Project monitoring reports 	
Component 2: Awareness and institutional capacity development					
Outcome 2: Adopted and implemented low carbon transport plans and/or programs in major cities	<ul style="list-style-type: none"> Number of cities capacitated by adopting and implementing low carbon transport plans and programs 	<ul style="list-style-type: none"> 1 	<ul style="list-style-type: none"> At least 4 	<ul style="list-style-type: none"> Evaluation reports Government documents Project survey 	<ul style="list-style-type: none"> DOTr have been mandated to implement EST nationwide which LCTs can be promoted nationwide.
	<ul style="list-style-type: none"> Number of institutions certified to conduct low carbon vehicle technician training 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> At least 2 		
Component 3: Investment in low carbon transport systems in the country					
Outcome 3.1: Increased private sector participation in the widespread deployment and commercialization of low carbon transport systems	<ul style="list-style-type: none"> Number of entities involved in the deployment and commercialization of low carbon transport systems by EOP 	<ul style="list-style-type: none"> 3 	<ul style="list-style-type: none"> 5 	<ul style="list-style-type: none"> Market survey Project monitoring reports Project activity report 	
	<ul style="list-style-type: none"> Number of bankable business plans, supported by the Project, completed and funded by Year 3 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 2 		
Outcome 3.2 Increased private sector investment in low carbon transport systems	<ul style="list-style-type: none"> Number of additional investors who invested in low carbon transport solutions facilitated by the Project by EOP 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 3 	<ul style="list-style-type: none"> Market research survey Project activity report Project monitoring report 	
	<ul style="list-style-type: none"> Cumulative investment in new low carbon vehicle projects by EOP 	<ul style="list-style-type: none"> Approximately USD 7,500,000 	<ul style="list-style-type: none"> Approximately USD 20,000,000 		

³⁹ 2 each newly developed and revised with low carbon transport provisions

⁴⁰ 1 newly developed for e-jeepneys; 1 newly developed for hybrid buses; 1 newly developed for AGT

APPENDIX G – GHG CALCULATIONS FOR POSSIBLE PUVMP EV INVESTMENTS

G1. Range of emissions from diesel-fueled buses, jeepneys and trike

- G-1. On pg 96 of the ProDoc, diesel fuel efficiency of commuter vans and jeepneys is quoted to be 0.18 liter/km or 18 liters/100 km. Assuming these vehicles travel anywhere from 200 to 300 km per day, the diesel consumed for each of these vehicles can range from 36 to 54 liters per day. Using a diesel emissions factor of 2.557 kg CO₂/liter diesel, this will amount to 92 to 138 kg CO₂ per day from these vehicles. Over a year assuming anywhere from 250 to 300 days of operation, the annual emissions of these vehicles can range from 23 to 41 tonnes CO₂/year. Over a 15-year lifetime, this can range from 345 to 615 tonnes CO₂.
- G-2. The emissions from e-trikes over a 15-year period is going to be significantly less, and thus should not be considered as an investment items on which to reach the objective-level target.

G2. Range of emissions from EVs eligible under PUVMP

- G-3. The estimate of emissions from an electric bus is based on the *kWh of battery charge per kilometer traveled times the grid emissions factor*. Current efficiencies of this metric now are in the range of 0.29 kWh/km (see pg 98 in ProDoc) along with the current grid emission factor for the Philippines of 0.53 tCO_{2eq}/MWh. Thus, emissions from a diesel commuter van or jeepney traveling is 0.0307 tCO_{2eq}/day (= 0.29 kWh/km x 0.53 tCO_{2eq}/MWh x 200 km) up to 0.0461 tCO_{2eq}/day (for 300 km per day). This translates into a range of 115 to 208 tCO_{2eq}/lifetime investment of each vehicle (with annual utilization of 250 to 300 days per year).
- G-4. There are also other efficiencies that can be realized through electric vehicles such as dedicated PUV lanes, parking restrictions, and synchronised lighting (all to increase the conveyance efficiencies of the PUV) as well as transport modal switches from private car to public transport (park-and-ride facility). The GHG emissions resulting from these interventions, while not as large as the fuel switch from diesel to electric, should be counted as additional emission reductions.
- G-5. The range of possible number of EVs to be deployed by the Project to meet the target emission reductions is 52,959 tCO_{2eq} (including the provision of solar power to the charging stations) are provided on Table G-1.

Table G-1: Range of EVs to be deployed to meet target emission reductions of 52,959 tCO_{2eq}

Daily range of travel per day	Number of days travelled per year	Number of commuter vans or jeepneys to attain 52,959 tCO _{2eq}
200	250	460
200	300	383
300	250	306
300	300	254
200	250	153 (assuming solar)
300	300	86 (assuming solar)

APPENDIX H – KEY PERFORMANCE INDICATORS FOR MONITORING ELECTRIC VEHICLES

- H-1. A frequently used reference when measuring Key Performance Indicators (KPIs) for the electrification of urban commercial vehicles and their integration with high-power fast charging infrastructure is the ASSURED Project Consortium reports (funded from the EU's Horizon 2020 research and innovation program under grant agreement no. 69850). In particular, their deliverable D2.5 is a "final requirement compilation and KPIs" (available on <https://assured-project.eu/storage/files/assured-d25-final-requirement-and-kpi-tree-merged.pdf>).
- H-2. To promote the electrification of urban commercial vehicles and integration with high-power fast charging infrastructure such as in the Philippines, KPIs are needed as a common tool for evaluating the achievements and impacts of electric vehicle demonstrations. While it is imperative that the readers of this report also read the D2.5 report prior to forming the KPIs for a particular EV fleet in the Philippines, the KPIs listed from pages 39 to 46 on this report are listed as a basis for any monitoring program for EV's.
- H-3. There are 1st, 2nd, 3rd and 4th level KPIs which are commonly used to monitor EV costs, availability/stability, reliability, environmental impact, performance, quality of service. A sample table for monitoring KPIs can be found on pages 50 to 55. While not all of these KPIs will be required to promote EV's early in the programme, some key KPIs that should be listed are as follows:
- 1.1.1: Electric vehicle purchase cost (including battery) in Php;
 - 1.1.2: Charging station purchase and installation costs in Php;
 - 1.1.3: Cost of purchasing electricity in kWh and Php;
 - 1.2.1.2: Cost related to energy consumption of the vehicle in kWh and Php;
 - 1.4.1: Revenues of the public utility vehicle (including the number of passengers) in number of passengers and Php;
 - 2.1.1: Vehicle operation and availability of the vehicle in terms of time and distance of service in hrs/day and km;
 - 2.1.2: Vehicle charging (includes overnight charging) in kWh per battery charge;
 - 3.1: Number of failures (per operational hours);
 - 4.2: CO₂ emissions (based on source of electricity, either renewable or grid) in kg CO_{2eq};
 - 5.1.2: Performance of EV associated with the energy available for driving (kWh per charge);
 - 5.1.14: Performance of EV associated to the maximum operational time of the vehicle per day (hrs per day);
 - 5.2.2: Energy that can be stored on the battery (kWh per charge).
- H-4. Managers of the data collection program will determine the frequency of the collection of various parameters. For example, charging station purchase and installation costs (KPI 1.1.2) will be monitored once whereas vehicle charging (KPI 2.1.2) would be monitored on a daily basis depending on the use of the vehicle. The remaining KPIs listed on pages 50 to 55 will gradually be incorporated into the monitoring program as stakeholders familiarity with all these technical aspects increases.
- H-5. A sample database for operational e-bus fleets is provided in Table H-1 (from Vancouver, Canada). Additional fields can be added as required.

Table H-1: Sample operational e-bus database (from Vancouver, Canada)⁴¹

ROUTE	TRANSIT CENTRE 2019	Dominant Bus Type	Topogra- phy/ Grade	Average Speed [km/h]	Length [km]	E-BUS ENERGY USE			CHARGE TIME/BUS		MAX - PEAK, NO SHARING			DIESEL BUS EQUIVALENT			GHG BENEFIT OF E-BUSES (V-X)
						kWh/in-service hr		GHG Emission (tCO2)	min/in-service hr		Required Charging Locations	Charge ports per location	Charge Ports	Diesel (litres)	Energy Eq (kWh)	GHG Emission (tCO2)	
						AVG	PEAK		AVG	PEAK							
3	VTC	TR	Low	12.6	10.1	25.5	29.7	x	4.4	5.0	2	1	2	y	z	v	V-X
4	VTC	TR	Low	16.6	16.7	30.1	34.3	x	5.0	5.6	2	1	2	y	z	v	V-X
7	VTC	TR	Low	15.3	18.7	28.6	32.8	x	4.8	5.4	2	1	2	y	z	v	V-X
5	VTC	TR	Low	9.6	3.1	21.7	25.9	x	3.9	4.4	1	2	2	y	z	v	V-X
6	VTC	TR	Low	9.7	3.0	21.9	26.1	x	3.9	4.5	1	2	2	y	z	v	V-X
8	VTC	TR	Low	13.4	9.0	26.4	30.6	x	4.5	5.1	2	1	2	y	z	v	V-X
9	VTC	TR	Low	14.6	10.8	27.9	32.1	x	4.7	5.3	2	2	4	y	z	v	V-X
10	VTC	TR	Low	14.4	12.0	27.6	31.8	x	4.7	5.2	2	2	4	y	z	v	V-X
14	VTC	TR	Low	15.7	15.3	29.0	33.2	x	4.9	5.4	2	1	2	y	z	v	V-X
15	VTC	T	Low	14.8	6.7	28.1	32.3	x	4.7	5.3	1	1	1	y	z	v	V-X
50	VTC	T	Low	13.6	7.0	26.6	30.8	x	4.6	5.1	1	1	1	y	z	v	V-X
16	VTC	TR	Low	14.9	19.9	28.1	32.3	x	4.8	5.3	3	1	3	y	z	v	V-X
17	VTC	TR	Low	13.8	11.4	26.9	31.1	x	4.6	5.2	2	1	2	y	z	v	V-X
19	VTC	TR	Mod	14.0	13.9	27.1	31.3	x	4.6	5.2	2	1	2	y	z	v	V-X
20	VTC	TR	Low	12.9	10.5	25.9	30.1	x	4.4	5.0	2	2	4	y	z	v	V-X
2	VTC	T	Low	16.0	6.6	29.4	33.6	x	4.9	5.5	1	2	2	y	z	v	V-X
22	VTC	T	Low	15.1	19.1	28.4	32.6	x	4.8	5.3	3	2	6	y	z	v	V-X
25	VTC	T	Low	19.0	22.7	32.8	37.0	x	5.4	5.9	2	2	4	y	z	v	V-X
26	BTC-S	T	Mod	19.2	10.0	32.9	37.1	x	5.4	6.0	1	1	1	y	z	v	V-X
27	BTC-S	T	Low	16.3	6.2	29.8	34.0	x	5.0	5.5	1	1	1	y	z	v	V-X
28	BTC-S	T	Low	19.1	13.2	32.8	37.0	x	5.4	5.9	2	1	2	y	z	v	V-X
29	BTC-S	T	Low	18.1	4.4	31.7	35.9	x	5.2	5.8	1	1	1	y	z	v	V-X
32	VTC	T	Low	16.5	9.9	30.0	34.2	x	5.0	5.6	2	1	2	y	z	v	V-X
33	VTC	T	Low	19.5	17.9	33.2	37.4	x	5.4	6.0	2	1	2	y	z	v	V-X
41	VTC	T	Low	19.3	17.0	33.1	37.3	x	5.4	6.0	2	2	4	y	z	v	V-X
43	BTC-N	A	Low	24.4	19.6	51.3	57.5	x	7.8	8.7	2	2	4	y	z	v	V-X
44	BTC-N	A	Low	21.5	12.1	47.4	53.6	x	7.3	8.1	1	2	2	y	z	v	V-X
84	VTC	T	Low	23.5	13.9	37.4	41.6	x	6.0	6.6	2	2	4	y	z	v	V-X
95	BTC-N	A	High	22.2	17.6	48.3	54.5	x	7.4	8.3	2	3	6	y	z	v	V-X
96	STC	A	Low	20.5	11.1	45.9	52.1	x	7.1	8.0	1	1	1	y	z	v	V-X
99	BTC-N	A	Low	20.4	14.2	45.8	52.0	x	7.1	7.9	2	3	6	y	z	v	V-X
100	HTC	T	Low	23.1	16.1	37.0	41.2	x	5.9	6.5	2	2	4	y	z	v	V-X

⁴¹ In Table H-1, “Transit Center” refers to the depot location (VTC= Vancouver Transit Center), “Dominant Bus Type” refers to three types of electric buses (TR=trolley buses, T=electric buses, and A=articulated electric buses)

APPENDIX I - RESPONSES TO COMMENTS RECEIVED ON DRAFT MTR REPORT

To the comments received on 18 December 2020 from the Mid-Term Review of “*Promotion of Low Carbon Urban Transport Systems in the Philippines (Philippines LCUTS Project)*” (UNDP PIMS 5304), responses are provided in the following table by institution (“Author” column) and track change comment number (“#” column):

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
UNDP - Floradema Eleazar	1	Para 5..methodology	Shall we say these were done virtually, due to the pandemic? MTR team composition.	Accepted. Edits made
UNDP - Floradema Eleazar	2	Para 9	Isn't there a more recent Guidance on Evaluation?	Accepted. Latest version when accessed in the link of the MTR TOR
UNDP - Floradema Eleazar	3	Par 14	Missing words	Accepted. Edits made
UNDP - Floradema Eleazar	4	Para 15	<p>There is also this UK Prosperity Fund supported initiative with ECO BUSINESS, although this might not have yet taken off, but good if this can be validated.</p> <p>GIZ also supported sustainable transport, and WWF did a study in Baguio of the feasibility of environmentally sustainable transport. PM Mario would have knowledge of these.</p> <p>UNEP also did a study, and UNIDO is planning an intervention on sustainable transport as part of Sustainable Cities Impact Programme of GEF</p>	<p>Accepted. Edits done added the ff.</p> <p>The ASEAN Low Carbon Energy programme (UK Prosperity Fund) supports the Philippines transition towards low carbon energy by aiding green finance flows and improving energy efficiency. Technical assistance was provided to better consider climate-transition risks in financing major projects. Ongoing activity includes the identification and selection of pilot projects to prove the feasibility of energy efficiency retrofit projects and their financing models.</p> <p>GEF 7 pipeline project “Accelerating the adoption and scale-up of electric mobility for low-carbon city development in the Philippines”. Submitted by GoP for funding under the GEF 7 Child Concept Project with UNEP as lead agency and UNIDO as GEF agency. The lead executing partner government agencies are Department of the Interior and Local Government and Department of Energy.</p>

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
UNDP - Floradema Eleazar	5	Par 16	Are all these based on the original analysis from the ProDoc, or updated to account for current realities on existing barriers? Let us specify please, the distinction, or addition, if any What about the Special Vehicle Pollution Control Fund? Is it still an issue?	These are all observations from the ProDoc combined with some of the discussions we had to confirm some of the situations on the ground. In other words, Paris 16 is mainly from the ProDoc. SVPCF is no longer available to support LCUTS activities. Control of the funds was transferred to DPWH for road repair and maintenance
UNDP - Floradema Eleazar	6	Para 18	In the sense of POPP, these agencies are partners not responsible partners tasked to carry out certain aspects of the Project Can we confirm whether HLURB, which is now the Dept of Settlements, Housing and Urban Development is PB member?	Accepted. Edits made
UNDP - Floradema Eleazar	7	Para 20 & 21	The ProDoc was signed by UNDP RR on 28 November 2017. Which date shall be use as reference for start date? Nov 16 is date of NEDA signature	The start date is considered to be the November, the date of the NEDA signature.
UNDP - Floradema Eleazar	8	Para 23	What about Dept of Trade and Industry? Also Board of Investments under DTI?	Accepted. Edits made
UNDP - Floradema Eleazar	9	Para 24	What about EVAP?	Accepted. Edits made
UNDP - Floradema Eleazar	10	Para 26	In what way has DBP and Land Bank helped the LCUTS in these?	By serving as the intermediary bank to provide financial services to prospective public utility fleet owners for accessing PUVMP funds. This is clearly of assistance to LCUTS in being able to execute financial services to the stakeholders.
UNDP - Floradema Eleazar	11	Para 29	What about localized low carbon urban transport strategies?	Accepted. Low level of knowledge at LGU level to develop respective Local Public Transport Route Plan (LPTRP) to comply with national government mandate to include in the Local

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
				Development Plan. The LPTRP provides opportunities for localized low carbon transport strategies.
UNDP - Floradema Eleazar	12	Table 1. Outcome 1	Other than the Bill, are there other policies being explored?	Para 39 describes other policies.
UNDP - Floradema Eleazar	13	Para 42	What are these obstacles?	Accepted. Obstacles should be defined as “LGUs are in the process of developing their LPTRP to comply with the national government guidelines”. Clarifications made in Para 42.
UNDP - Floradema Eleazar	14	Para 47	<p>Can we still consider the design ambitious given the original 4 year duration? If no, then this statement is on account of the delays and the remaining time available – is this correct?</p> <p>Can you expound o this ? Are you referring to the fact that the project does not have an estimate of number of vehicles to be deployed to meet the target reduction in CO2?</p> <p>But this is something that the Project ought to address</p>	<p>The report is quite clear about the inadequate progress due to delays at the beginning of the project and currently with the pandemic (as covered under Para 20 to 21). We also consider the LCUTS designed to be ambitious but achievable. As such, the barriers to achieving the Project objectives are related to the time remaining.</p> <p>We have made an attempt in Para 75 to estimate the number of public utility vehicles required to meet the Project objective of 52,959 tons CO2 emission reductions. The number ranges anywhere from 86 to 460 depending on the size of the buses deployed with the higher number being jeepneys and 20-seater community buses and the lower number being larger buses. All we can provide at this time I these guidelines. However, we are confident the project can achieve these objectives.</p>
UNDP - Floradema Eleazar	15	Para 48	<p>I was wondering whether the DBP and LBP do not have this formula or business model. Otherwise, how can they promote lending for this product of theirs. There is also a need to assess the demand, and what is constraining the demand.</p> <p>Again, the demand side should also be assessed. Or is the demand catalyzed by the PUV modernization program? Is this enough?</p>	DBP sees the need for EV performance data based on actual (local) conditions to make the promotion of EVs more attractive (technical and financial). Demand is already catalyzed by PUVMP.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
UNDP - Floradema Eleazar	16	Figure 2	The head of UNDP is a Resident Representative, not Country Director. Please update this	Accepted. Edits done
UNDP - Floradema Eleazar	17	Para 51	<p>All projects operated during the quarantine, so why is this unique to LCUTS? We expect the quarantine to continue for the most part of 2021, so the Project had to find ways to catch up even during the pandemic.</p> <p>Can we say something about how the Project was able to employ adaptive management given COVID 19? How effective was this? How does this compare to other projects which were in similar situation?</p>	<p>Partially accepted. Para 51 is really a factual summary of why there has been an inadequate progress on LCUTS. Paras 37 to 46 do cover the adaptive management aspects of the Project but to the extent that the current activities of the Project do not lead to timely delivery of the Project objective of 92,959 tons CO2 emission reductions.</p> <p>Some edits were made throughout the text to reflect the effectiveness of the adaptive management situation within the pandemic. However, the MTR want to emphasize priority actions of an enhanced awareness and advocacy program to strengthen outreach to potential EV investors and operational EV fleets, as a means of immediately generating CO2 reductions for the Project objective.</p>
UNDP - Floradema Eleazar	18	Para 56	<p>Can you comment on how the PMU was able to control the scope of the project given multiple suggestions from different fronts?</p> <p>Did this affect the limited progress of the Project to date?</p>	Accepted. Apologies for this omission as we originally did have it in the text. We think that the PMU has done a very good job but is having some problems filtering some of the inputs from different stakeholders. This has had an impact on focusing on GHG emission reductions from existing and future EV fleets. Edits have been made accordingly in Para 56.
UNDP - Floradema Eleazar	19	Para 71	Office or unit within DOTr, not the agency	Accepted. Edits done
UNDP - Floradema Eleazar	20	4.2.1 recommendations	Isn't demand an issue? This is a key assumption in the Project that commercialization will happen with policy support, capacity building and technical support. These assume that there will be public demand. Is this assumption correct?	Partially accepted. Demand to modernize the public utility fleet is an issue depending on the fiscal position of the fleet owner. In our meetings with DBP it appeared that compliance was forcing a lot of the fleet owners to have demands for modernizing the fleet. As such, their technology choices for modernized public utility vehicles were generally EU for vehicles instead of EV's due to cost. DBP would prefer EV's due to the long term cost savings and environmental benefits

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
			How will the likelihood of achieving results be affected if the approved extension is only 18 months, per GEF policy?	accrued by these technologies. If the lcuts can assist in the promotion of EV's over EU for vehicles, lcuts can achieve its GHG emission reduction targets, likely within more than 18 months. Some edits have been made in this section to clarify these points.
UNDP - Floradema Eleazar	21	Para 92	Should the Project vigorously pursue the Low Carbon Transport Master Plan? This should provide the enabling framework for sustaining the low carbon transport strategy during and beyond the project. Currently, the policy link of the Project is only with the PUV Modernization Plan. The government has to have a more definitive policy statement and program on this; while the Bill is taking some time to be approved.	Accepted. Absolutely. We were not aware of a Low Carbon Transport Master Plan. However, you are correct in saying that the only link right now is PUVMP whereas the Government and Philippines should be looking at a more holistic approach to low carbon transport. Edits have been made accordingly.
UNDP - Karis Vehnel Fonte	22	Para 23	Let's add Department of Trade and Industry, and add component Leads for each component.	Edits done.
UNDP - Mario Tercero	23	Para 19	This is now DHSUD, instead of HLURB. Include CCC and Senate.	Edits done.
UNDP - Karis Vehnel Fonte	24	Para 20, 7 th bullet	Can we also mention here the resignation of two component leads in March, who were replaced 6 and 7 months later (September and October).	Edits done.
UNDP - Mario Tercero	25	Para 32	While the Project will not deploy EV units, we are going to further push for a strong private sector initiatives to deploy demo units for mass transport. Star 8 deployed a pilot units in Baguio, BYD proposed to DOE the deployment of taxi EV, GET deployed units as demo since they have not yet collect fares for new units deployed in Davao. Some operators add EV units in their ICE fleet (e.g. PTAG, MGTC in Gensan) and they have records prior COVID that they earn higher in EV than ICE. Demonstration during the observance of physical distancing will also provide initial findings due to physical distancing protocol.	Edits have been made to this Para to reflect the ongoing companies that are trying to deploy or are planning to deploy EVs.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
UNDP - Mario Tercero	26	Para 37	Based on ProDoc, GET and EVEC have their letter of intent issued in support to LCT Project. They even had deployment of units even before the PMU was formed. While they members of the Project Board also and had been an active participants in our events, workshops. They even served as resource speakers, and we have past records of networking with UNDP and DOTR. Can the LCT Project attribute their deployment as part of the promoted activities? This happened during the time the PMU was onboarded.	The LCUTS can attribute their deployment as long as the deployment was achieved during the duration of LCUTS Project.
UNDP - Mario Tercero	27	Para 38	In connection with item 37, there are numbers of beneficiaries, labor created from the deployment of units of GET, PTAG, MGTC and even EVEC who are active partners/stakeholders of LCT Project.	These can be counted as long as they occurred during the Project duration and if their employment was created by a technical assistance activity of the project. From the progress reported to date, we doubt that any employment has been generated to date by the Project activities.
UNDP - Mario Tercero	28	Para 88	The Project will do this together with DOE EUMB counterpart	Edits made to reflect this point.
UNDP - Mario Tercero	29	Para 89	The LCT Project fully support this to be supported with a feasibility study. We really have a difficulty of encouraging the private sector if the unit they will deploy is a pilot unit (some private sectors would consider this if a special permit for operation of pilot units will be provided).	Edits made to reflect this point.
UNDP - Jennifer Sabianan	30	Para 92	This can be addressed by the LGU Engagement Strategy developed and approved by the PB	Edits made to reflect this point.
UNDP - Mario Tercero	31	Appendix G	We will use this in our estimates. May we know how are we going to reconcile this with the recommended guidelines/calculations used from the ProDoc?	Appendix H has our MTR estimates for the number of e-commuter buses or e-jeepneys required. If larger buses are to be deployed, the number of e-buses would be far less than the range of 86 to 460 e-commuter buses or e-jeepneys.
UNDP - Usha Rao	32	Section 4.2.1	I thought you were suggesting some restructuring in the project team with possibly hiring of a CTA. I didn't see that in the report.	A part-time international CTA to help guide the LCUTS PMU would be very useful. As such a recommendation has been added for this.
ERG - DoTR	33	General comment on report	The MTR could also be presented in a manner that it also “appraises” the achievements and/or other	Partially accepted. The MTR followed the UNDP GEF evaluation guidelines and in the process also covered

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
			unforeseen outcome-reinforcing developments (within or outside the project), if any, in the course of implementation -- for purposes of exploring/assessing other “strengths or enablers” for the positive ends of the project	strengths and enablers such as continued private sector deployment of EVs for public transport to comply with PUVMP. At the MTR, LCUTS have had no direct interventions on EVs or EURO 4 vehicles deployed by transportation cooperatives to contribute to the objective level targets.
ERG - DoTR	34	General comment on report	In relation to the large spectra of stakeholder participation and partners, the PMU might need to reassess partnership strategy for purposes of prioritization and delineation of roles -- in the sense that partners could work on a more targeted role to play prioritizing “enforcement” of existing policies and project-developed standards. Also, rather than focusing on “think tanks” maybe exploring new alliances with partners/organizations who can deliver activities towards realization of low progress outcomes.	Accepted. Moreover, this comment will be for the PMU to consider in its workplan in implementing Recommendations 2, 3 and 4 (Paras 79, 80 and 81)
ERG - DoTR	35	General comment on report	As also observed in the MTR, LCUTS sees sustainability and possible scale up beyond the project life with taking into consideration the continuing mandate on local route rationalization plans and implementation, as well as, other emerging low carbon transport modalities other than EVs. Moreover, the policy initiatives with LCUTS’ intervention will bear outcomes beyond the project life, and with many enabling factors such as strong government ownership and continuing local government capacity strengthening efforts of other government agencies that might also be useful for LCUTS’ vision, e.g., upgrading local planning practices and stronger focus on implementing environmental laws.	Accepted. Comment that has already been discussed in Para 69 under “Institutional framework and governance risks”.
ERG - DoTR	36	General comment on report	Given the lingering pandemic, the project needs “flexibility” in terms of prioritizing outputs with higher chances of achievement., e.g. pulling efficient Communication Strategy to boost the market demand for EVs which will also serve as a	Accepted. Recommendations 2, 3, 4 and 5 provides prioritized activities to achieve the objective targets. For example, Recommendation 4 deals with communicating the EV performance data to target stakeholders for catalyzing the EV market.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
			pull factor for investments and increase competitiveness for the much needed business plans palatable to the business sector	
ERG - DoTR	37	General comment on report	Relatively, refocusing on evidence building is absolutely essential within the remaining months of the project, i.e., “local LCUTS practices”. As it will serve as a key driver fulfilling the gaps in Outcomes 2 and 3	Accepted. The response has been Recommendations 2, 3 and 4 which focus on properly strategizing a rollout of EV performance gathering for the purposes of Outcomes 2 and 3.
ERG - DoTR	38	General comment on report	In addition to above, the PMU might need to refocus and capitalize on expanded private sector “engagement” activities (to include higher level financial institutions) relevant to the realization of Outcome 3, in order to stimulate mobilization of private sector development and more active participation of the business sector. This to instigate the cycle of the government’s investment strategy, taking into consideration the currently observed baseline on government’s mode of development - infrastructure development	Partially accepted. DBP and LBP lending programs supporting PUVMP implementation appears sufficient for LCUTS to achieve its target for private to be sectors assisted in deploying EVs. Private financial institutions will likely open lending programs for EVs if the market is further expanded with best practice from the project.
ERG - DoTR	39	General comment on report	Consider editing to use “INADEQUATE” instead of “LACK” in describing progress. The use of “lack” seems to be that there's absolutely no progress at all, albeit the Project actually did make some progress to some extent, as rated in the MTR Report.	Accepted. Edits made.
ERG - DoTR	40	General comment on report	Double-check the acronyms and definitions used in the list of acronyms and report body e.g., DILG is Department of the Interior and Local Government, PUVMP is Public Utility Vehicles Modernization Program, DTI-BOI is Department of Trade and Industry-Board of Investments, Department of Science and Technology-Philippine Council for Industry, Energy and Emerging Technology Research and Development is DOST-PCIEERD, DOTr is Department of Transportation (in p. 10, 11,	Accepted. Edits made.

<i>Author</i>	<i>#</i>	<i>Para #/ Comment location</i>	<i>Comment/Feedback on draft MTR report</i>	<i>MTR response and actions taken</i>
			16), LPTRP is Local Public Transport Route Plan (p. 14), LTFRB is Land Transportation Franchising and Regulatory Board.	
ERG - DoTR	41	General comment on report	Include all acronyms used in the report in the list of acronyms e.g., DOTC, LTFRB, and spell-out before using the acronym	Accepted. Edits made.
ERG - DoTR	42	General comment on report	E-buses are defined as units that are 25-seaters (in. p. 30). Perhaps we can use the term e-PUJ (PUJ has a seating capacity of around 22, minibuses at 35, and buses at 50).	Accepted. GHG emission reduction estimates for the Project were based on jeepneys and small commuter buses as provided in Appendix G.
ERG - DoTR	43	Para 13	Rephrase provision to include definition of old units for scrappage as defined in the DOTR DO 2020-021, and to make the statement less focus on e-PUVs as the operators may also replace old units with fuel-based modernized PUVs: “phasing out old PUVs that are at least 15 years old PUV units which already reached the mandatory age limit as prescribed by existing DOTr and LTFRB issuances or PUV units which did not pass the road worthiness test, and replacing them with safer, more comfortable and more sustainable alternatives such as which includes electric jeepney (e-jeepney), electric bus (e-bus), electric tricycle (e-trike), and their EURO-4 diesel vehicles counterparts or better”	Accepted. Edits done as requested.
ERG - DoTR	44	Para 13	LPTRP is pre-requisite of PUV franchises, according to DILG-DOTr JMC No. 001, s. 2017 (may be included as footnote): “compulsory involvement of local government units (LGUs) in route planning through the submission of their own Local Public Transport Route Plan (LPTRP) as a pre-requisite for the opening of modernized PUV franchises within their jurisdiction.”	Accepted. Edits done as requested.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
ERG - DoTR	45	Para 20	Clarify if there are not really any milestones from Nov 2017 (signing of ProDoc) to Jul 2018 (internal Memo to Program Manager’s position). Perhaps, we can also include milestones and any events conducted prior to the signing of the ProDoc as some letters were signed by partner agencies in 2016. Double check dates indicated, ESITU is dissolved in 2018.	Partially accepted. Significant LCUTS events were captured in Para 20. As such, no edits were made.
ERG - DoTR	46	Para 27	Project support to private EVs might require more evidence and different level and project strategy which could be the object in sustaining the gains of the current LCUTS Project in the future.	Partially accepted. While the comment is true, Para 27 is attempting to describe how LCUTS was launched with the government-supported PUVMP. No edits as such were made here.
ERG - DoTR	47	Para 32	Relevant to General Comment No. 1.6., the MTR Findings on the need for “...pilot operation or demonstration of LCT activities (that could include EV demonstration, green routes)...” is absolutely agreeable to be a basis of strategic focus in the remaining months of the project.	Accepted. Para 32 does make the distinction that a pilot or demonstration of LCT activities can and should include EV demonstrations, green routes.
ERG - DoTR	48	Para 36	Given that the MTR found that (see Para 32) there seems to be a “...lack of logical and efficient pathway to generating GHG emissions reductions...”. Would it be possible to still modify the “indicators” for the Project Objective? This is due to the observation that the current indicators appear to be disjointed against the Project Objective which misses the results actually reaped by the investment in terms of “creating an enabling environment”.	Not accepted. On GEF Projects, Project objective indicators and targets are “sacred”. The important indicators here is the lifetime GHG emission reductions which will help bring in all the other LCUTS results and benefits.
ERG - DoTR	49	Para 64	The observation of the MTR is in place considering the time constraints and the gap towards achieving tangible, significant outputs on reducing GHG emissions. However, the existing coordination network built by the Project should be kept for sustainability and constituency building for policy advocacy.	Partially agreed. While Para 64 currently describes the ongoing communications strategy, edits are made to ensure long-term sustainability and constituency building for policy advocacy for low carbon transport

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
ERG - DoTR	50	Para 65	The LCUTS website is a good start especially even more amidst the pandemic constraints. The website could also be maintained as a means of sustainability. And it can further be improved by (1) providing “interactive” capacity for purposes of contributing to the Data collection on EV practices from all sectors of the industry; (2) linking with targeted partners/stakeholders’ websites for promotion to boost the gaps in awareness raising and stimulate greater palpability to the public. Also mention the social media page for the project (@LCTProjectPH) which may be further improved by keeping the page active by (1) posting updates on the projects, (2) posting updates on the accomplishments of the partner agencies, (3) testimonies of LCT operators, LGUs (related to Recommendation 15) or even commuters, (4) launching an information series on LCT, etc. Virtual groups may also be explored.	Accepted with edits made to Para 65.
ERG - DoTR	51	Para 80	PMU may perhaps Dedicate private sector engagement cum linking and learning/comms work to facilitate this function. Tap the partner cities or those localities with approved LPTRP and/or with similar visions for LCT.	Partially agree. This is because the focus of who is invited to the enhanced awareness and advocacy program should be focused on initiating investment. Though there is guidance given in Recommendation 4, the MTR team leaves the determination of types of individuals to be invited to the PMU.
ERG - DoTR	52	Para 82	Perhaps the M&E work could be shared by the different government agencies involved depending on the object of monitoring, that coincides with existing mandates.	Agreed. The recommendation will identify potential stakeholders who will participate in this enhanced monitoring program.
ERG - DENR	53	General comment	The Midterm Report has attained its purpose of providing a comprehensive and systematic account of the performance of the LCT/LCUTS Project by reviewing its design, implementation and noting its accomplishments, its milestones, as well as its shortfalls compared to its objective. The exhaustive review of available literature and	Many thanks for the complements.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
			documents related to the Project, and the interview of key informants was not hindered by the existing conditions brought by the pandemic and the latter was conducted virtually in order to get important information. Generally, it is a very organized report and the recommendation for the extension of the project implementation can be justified by the findings of the Report	
ERG - DENR	54	The Projects Timing and Milestones	Good narration of the Projects accomplishments amidst the problems confronted regarding staffing and/or management issues and the concomitant loss of time to effectively implement the project, and further exacerbated by the COVID-19 pandemic.	Project has had some bad luck with implementation which hopefully will diminish with time
ERG - DENR	55	Conclusion and Recommendations	<p>This section of the Midterm Review Report finds its premise on the earlier findings of the evaluators, such as the significant delays on the Project which bear out one of the recommendations for the extension of the implementation of the LCT/LCUTS Project to achieve its goal.</p> <p>The discussions raised here are important points to ponder and may be the crucial next steps for the project to consider looking forward.</p> <p>We support extension of the project because of the significant outputs that will be generated from the project in policy formulation and program plan development.</p>	Thank you for the comment and support!
Karis Vehnel Fonte	56	Executive Summary, 2 nd para, pg v	Does this imply that the reason for the temporary discontinuation of DBP and LBP's financial assistance was due to low transport ridership during pandemic? Were there other reasons cited and its effects to PUVMP?	DBP and LP's assistance was suspended during the height of the pandemic. Edits provided for clarification.

Author	#	Para #/ Comment location	Comment/Feedback on draft MTR report	MTR response and actions taken
Karis Vehnel Fonte	57	Table H-1	For better appreciation of the sample data, are there any brief descriptions of the variables and references for each value or code (e.g. VTC, TR, T)	Footnote 41 has been added.

APPENDIX J - EVALUATION CONSULTANT AGREEMENT FORM

Evaluator 1:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders’ dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form⁴²

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Roland Wong

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

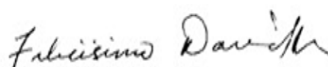
Signed at Surrey, BC, Canada on 15 January 2021

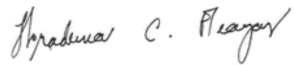


⁴² www.unevaluation.org/unegcodeofconduct

Evaluator 2:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
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7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form⁴³**Agreement to abide by the Code of Conduct for Evaluation in the UN System****Name of Consultant:** Mr.. Felicisimo David Jr**Name of Consultancy Organization** (where relevant): _____**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation**Signed at Manila, the Philippines on 15 January 2021⁴³ www.unevaluation.org/unegcodeofconduct

APPENDIX H: MTR REPORT CLEARANCE FORM**Midterm Review Report Reviewed and Cleared By:****Commissioning Unit**Name: Floradema Eleazar, Team Leader, Climate Action ProgrammeSignature:  _____Date: 15 January 2021**UNDP-GEF Regional Technical Advisor**Name: K Usha RaoSignature:  _____Date: 15 Jan 2021