1. Project Data

Summary project data				
GEF project ID		5741		
GEF Agency project ID		120309		
GEF Replenishment Phase		GEF-5		
Lead GEF Agency (inc	lude all for joint projects)	United Nations Industrial Development Organization		
Project name		Energy efficient low carbon transp	oort in Malaysia	
Country/Countries		Malaysia		
Region		Asia, Middle East & Pacific		
Focal area		Climate Change		
Operational Program or Strategic		Climate Change Focal Area Objective 4 (promoting energy efficient, low-carbon transport and urban systems)		
Stand alone or under	a programmatic framework	Standalone		
If applicable, parent	program name and GEF ID	N/A		
Executing agencies involved		Ministry of Energy, Science, Technology, Environment and Climate (MESTECC), Malaysia Green Technology Corporation (MGTC/GreenTech Malaysia)		
NGOs/CBOs involven	nent	Relevant CSOs and NGOs: consultation		
Private sector involvement (including micro, small and medium enterprises) ¹		Malaysian Automotive Institute: provision of technical support (secondary executing agency); Banks/Financial institutions: beneficiaries; provision of loans Electric Vehicle manufacturers: beneficiaries, provision of expertise Several private companies: co-financers		
CEO Endorsement (FS	SP) /Approval (MSP) date	10/8/2015		
Effectiveness date / project start date		10/28/2015		
Expected date of project completion (at start)		10/27/2018		
Actual date of project	t completion	3/31/2020		
	F	Project Financing		
		At Endorsement (US \$M)	At Completion (US \$M)	
Project Preparation	GEF funding	0.05	0.05	
Grant	Co-financing			
GEF Project Grant		2	1.982	
Co-financing	IA own	0.22		
	Government	4		
	Other multi- /bi-laterals			
	Private sector	24.5		
	NGOs/CBOs			
	Other			
Total GEF funding		2.05	2.032	
Total Co-financing		28.72		
Total project funding (GEF grant(s) + co-financing)		31.22		
Terminal evaluation validation information				

¹ Defined as all micro, small, and medium-scale profit-oriented entities, including individuals and informal entities, that earn income through the sale of goods and services rather than a salary. (<u>GEF IEO 2022</u>)

TE completion date	4/7/2020	
Author of TE	Stefan Melnitzky, Chin haw Lim	
TER completion date	2/19/2023	
TER prepared by	Emanuele Bigagli	
TER peer review by (if GEF IEO review)	Ritu Kanotra	

Access the form to summarize key project features here: <u>https://www.research.net/r/APR2023</u>.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	HS	HS	HS	S
Sustainability of Outcomes		HS	HS	ML
M&E Design		S	S	MS
M&E Implementation		S	S	MS
Quality of Implementation		HS	HS	S
Quality of Execution		HS	HS	HS
Quality of the Terminal Evaluation Report				HS

3. Project Objectives and theory of change

3.1 Global Environmental Objectives of the project:

The overall objective of the project is to catalyze and accelerate widespread use of electric vehicles as part of energy efficient low carbon transport and low-carbon cities initiatives of Malaysia (TE, p. 5).

3.2 Development Objectives of the project:

The TE does not specify any development objective as different to the global environmental objective.

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or project activities during implementation? What are the reasons given for the change(s)?

The TE (p. 21) notes that some changes were done at outcome level to meet the demands of various stakeholders and adapt to the actual situation in the country, related to: changes in training needs assessment (TE, p. 22); to a double shift of focus for the installation of chargers from the mainland to Langkawi Island, and then to the mainland again, due to political changes (TE, p. 22); and changes in the targets for indicators of Outcome 2.1 (TE, p. 18) and Output 2.1.4 (TE, p. 19).

3.4 Briefly summarize project's theory of change – describe the inputs and causal relationships through which the project will achieve its long-term impacts, key links, and key assumptions.

• <u>Problem</u>: the transportation sector in Malaysia is currently the largest sectoral contributor to country's GHG emissions, with negative impacts on climate change, environmental pollution, health and socioeconomic impacts, particularly in large cities.

• <u>Barriers</u>: (1) Lack of concrete incentive programs to encourage early market take-off and first-movers; high subsidization of fossil fuels; (2) Lack of coordination and risks efficiency losses and overlap among the large number of ongoing initiatives focused on developing the local automotive sector or on promoting more sustainable forms of transportation; (3) Lack of information about electric vehicles and outreach programs, hence low awareness within the public of the opportunities associated with electric vehicles; low human capacity on Electric vehicles, battery disposal management, etc.; (4) Lack of the necessary supporting infrastructure: testing facilities, charging station networks and support applications, maintenance, etc.

• <u>Strategy</u>: (i) Improvement of policy and regulatory frameworks for Electric Vehicle(EV) use and local manufacturing; strengthened capacity of concerned institutions built and awareness raising; (ii) Development and demonstration of infrastructure for Electric vehicles and local EV manufacturing capacity.

• <u>Benefits</u>: increased energy security and economic growth of industry; improved air quality through a reduction of GHG emissions, other exhaust gas emissions and noise from the transport sector of Malaysia; income growth and improved living standards through the creation of additional jobs and upgrading of technical skills.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

The outcome ratings (relevance, effectiveness, efficiency, and overall outcome rating) are on a sixpoint scale: Highly Satisfactory to Highly Unsatisfactory. The sustainability rating is on a four-point scale: Likely to Unlikely.

Please justify the ratings in the space below each box.

4.1 Relevance and Coherence	S
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The TE rates relevance as Highly Satisfactory, and this review rates it as Satisfactory. The project was very relevant to GEF, UNIDO, and national priorities, plans and policies; it was well-designed, although there were some shortcomings in relation to the design of indicators.

The project was in line with GEF Climate Change Focal Area Objective 4 (promoting energy efficient, lowcarbon transport and urban systems). It was aligned also with GEF and UNIDO's focus on the achievement of Sustainable Development Goals no. 8 and 9² and for GHG emission reduction (TE, p. 14). The project was also highly relevant for the country, and in line with government priorities including the 12th Malaysian Plan and National Automotive Policy 2020 (TE, p. 14). It was also very relevant to the target group and project stakeholders. The project design was well-targeted, clear and consistent (TE, p. 14).

4.2 Effectiveness	S
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The TE rates effectiveness as Highly Satisfactory, and this review rates it as Satisfactory. Although the project seemingly overachieved the main target measuring the project objective, and achieved or overachieved all the targets set at the outcome and output level, this conclusion may not be fully supported, as there is no clear evidence and the information available is limited to some indicators, because of some key data missing due to limited measurement methodologies.

The TE (p. 16) notes that the project overachieved the target set to measure the expected result, i.e., Direct energy saving and GHG reduction from Electric personal cars (110,720 tCO₂/year against the target

² Sustainable Development Goal 8 is to "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all", while Sustainable Development Goal 9 is to "Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation".

of 14,262 tCO₂/year), Electric buses (200 tCO₂/year against the target of 2,590 tCO₂/year), and 2-wheelers (6,710 tCO₂/year against a target of 2,788 tCO₂/year). It is worth noting that for electric buses, the TE reports the abovementioned value as indicating the achievement of the related target, although the reported data clearly indicate that this sub-target was not achieved; it can be speculated that this is due to a typo for 200,000 instead of 200 tCO₂/year.

All targets related to all project outcomes were achieved. More details for each Component are as follows:

<u>Component 1</u>. The project achieved the endorsement of 4 policy papers (target: 3) and 3 financial incentive schemes (target: 2) by a large number of stakeholders; moreover, it developed awareness online raising materials, and conducted 30 workshops and seminars with more than 300 participants, more than 30% of which were women (target: 5; TE, p. 15), benefiting at least 70% of counterpart included in development of policy papers.

<u>Component 2</u>. Although the project did not monitor in detail the achievement of increase in local manufacturing of Electric Vehicles' parts and components (target: 6-7% increase), the TE (p. 17) affirms that this outcome was achieved, based on the limited information available for some manufacturers. Moreover, the project built more than 300 fast charging stations (target: 300-600). A total of 6 charging stations were built based on photovoltaics (target: 6; Output 2.1.1), and 5 enhanced standards and regulations for electric vehicles' infrastructure were developed (target: 4; Output 2.1.2). as for Output 2.1.3, related to the development of 2 enabling support programs, 3 enhanced incentives, and 50% of which having specific recommendations or specifications for women, the TE (p. 19) notes that these targets were achieved, although without providing sufficient detail, and making only a reference to "Charge Electric Vehicles programme, photovoltaic chargers demonstrated for Cars and buses. Input for National Automotive Policy 2020", and to the fact that the project had a similar impact for both men and women. Finally, the target of 5 capacity building trainings for electric vehicles' manufacturers was changed in the National Steering Committee to focus on Electric Vehicle Supply Equipment, and the TE (p. 19) flags it as achieved.

4.3 Efficiency	S
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The TE rates efficiency as Highly Satisfactory, and this review rates it as Satisfactory. the project was costeffective and spent almost all the budget; it suffered some initial delays related to procurement, and was extended for 17 months due to the COVID-19 pandemics.

The project spent around 98% of funds, and the remaining 2% was planned to be used for the closing and promotion event (after the TE). The TE (p. 21) notes that the cost-efficiency of the project was very high, given the excellent impact of the project on future policies.

The project suffered initial delays related to the procurement procedure between project partners and suboptimal procurement of equipment, which were successfully addressed by improving procedures in second half of the project (TE, p. 27). The TE (p. 21) notes that, although the project was extended for 17 months, this actually worked in favor of the project, as its results came timely for the main beneficiaries to support future plans from various Ministries.

Summarize key outcomes related to environment, human well-being, and enabling conditions (Policy, Legal & Institutional Development; Individual & Institutional Capacity-Building; Knowledge Exchange & Learning; Multistakeholder Interactions), as applicable. Include any unintended outcomes (not originally targeted by the project), whether positive or negative, affecting either ecological or social aspects.

Where applicable, note how both intended and unintended outcomes have positively and/or negatively affected marginalized populations (e.g., women, indigenous groups, youth, persons with disabilities), and where some stakeholder groups have benefited more/ less than others.

The TE rates overall project performance as Highly satisfactory, and this review rates it as Satisfactory. the project was very relevant and well-designed, although with some shortcomings in relation to indicators; it overachieved the project target and achieved all outcome and output targets, and was overall cost-effective, although delayed by the impact of COVID-19.

The key outcomes and impacts are summarized as follows:

Environmental. The project contributed to savings in CO2 emissions from the use of electric vehicles, ebuses, and 2-wheelers.

Socioeconomic. The TE does not mention any socioeconomic outcomes of the project.

Enabling conditions. The project enabled policies and regulatory frameworks, and strengthened the institutional capacity, and enhanced awareness on the widespread use of electric vehicles in Malaysia, through the extension of endorsement of policy papers and financial incentive schemes from a high number of stakeholders, the production of awareness raising material and the organization of 30 workshops and seminars. Moreover, it increased the skills of personnel in locally-manufactured electric vehicles' parts, and strengthened the related infrastructure, through capacity building activities and support programs (TE, pp. 16-17).

Unintended outcomes. The TE does not report any unintended outcome.

Note any progress made to sustain or expand environmental benefits beyond project closure, using stakeholder (rather than project) resources, e.g. through replication, mainstreaming or scaling-up of GEF-supported initiatives. Examples would be farmers adopting practices using own funds, follow-on replication projects, development of plans for scaling, inclusion in local or national legislation, and allocation of government budgets or private sector investments for institutional adoption.

The TE rates sustainability as "Highly Satisfactory", and this review rates it as Moderately Likely. There are some risks to project sustainability, especially financial risks, which may impact the continuation of project benefits, although overall, it is more likely that these will continue in the future rather than abate.

The TE (p. 23) notes that the Project Management Unit and the expert of the Malaysia Green Technology Corporation will support the uptake of the project after its end.

Financial. The project will have a follow-up during GEF-7. However, there is the need to secure funds independently from this (TE, p. 46). Moreover, the selected pilot project models were not viable for industries, and therefore the business case for end users was not visible. Also, there are currently no plans to ensure that the subsidized program to install charging infrastructure and create awareness becomes self-sustaining. Finally, e-mobility is not a viable option for consumers, due to highly subsidized and high purchase costs of Electric vehicles, electric driving range, battery charging time, uncertainties of battery life and cost, few choices of vehicle models, and charging infra-structure.

Sociopolitical. There are very low socio-political risks to project outcomes, thanks to the National Automotive Plan 2020 plan that addresses specifically education, capacity building, job and income creation (TE, p. 23). Awareness of potential users should be further expanded, given the limited number of consumers opting for electric vehicles (TE, p. 23).

Institutional frameworks and governance. Although the staff of the Malaysia Green Technology Corporation (MGTC/GreenTech Malaysia) will further increase their support to project uptake after its end, the TE (p. 23) highlights the need for a dedicated entity to further support low-carbon measures, which is expected to be accomplished by the future GEF-7 follow-up project. Moreover, while the uptake of the Low Carbon Mobility Blueprint is expected in the future at ministerial level, some extra focus will be needed at the level of state agencies and municipalities (TE, p. 23).

Environmental. The TE (p. 23) notes that the environmental risks are quite low. The push to electric vehicles could hamper efforts to increase the use of public transportation; moreover, the environmental impact of the production of batteries and their end-life management are a risk, which, however, is expected to lower in the future thanks to improvements already on the way (TE, p. 23).

5. Processes and factors affecting attainment of project outcomes

Before describing the factors, you may choose to summarize reported outcomes and sustainability here: <u>https://www.research.net/r/APR2023</u>.

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The co-financing from private companies ChargeEV (Mesita - fund) and Prasarana BRT Sunway supported the project outcome and allowed it to mark considerable achievements (TE, p. 21). Proper monitoring of co-financing and in-kind contributions was not in place and was not jointly agreed with the GEF focal point; nevertheless, project estimates showed a very high ratio for co-financing. Moreover, the TE (p. 21) notes that this problem should be solved soon, especially for the preparation of the follow-up project to be funded under GEF-7.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project was extended for 17 months until September 2020 because of COVID-19. This had a positive outcome, allowing to provide timely results to support future plans from various Ministries (TE, p. 15).

5.3 Stakeholder ownership. Assess the extent to which stakeholder ownership has affected project outcomes and sustainability. Describe the ways in which it affected outcomes and sustainability, highlighting the causal links.

The government stakeholders played a very active role in the project decision-making and supported project implementation (TE, p. 22). The multi-stakeholder approach and the high number of workshops, technical meetings and experts' discussion created a strong ownership for project results, leading to advanced knowledge and awareness for low-carbon mobility among all relevant stakeholders. All stakeholders interviewed emphasized the usability of the project results (TE, p. 15).

5.4 Other factors: In case the terminal evaluation discusses other key factors that affected project outcomes, discuss those factors and outline how they affected outcomes, whether positively or negatively. Include factors that may have led to unintended outcomes.

Due to the COVID-19, an extension till September 2020 was agreed to enable conducting the final workshop with all stakeholders in September 2020 (TE, p. 9). Moreover, the changes in the political landscape, with some reshuffling of ministries, translated into changes in focus of some specific activities, and did not have overall a negative impact on cooperation and project work (TE, p. 22).

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory to Highly Unsatisfactory.

Please justify ratings in the space below each box.

6.1 M&E Design at entry	MS
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The TE rates overall M&E as Satisfactory, and this review rates M&E design as Moderately Satisfactory. The M&E plan was practical, addressing GEF requirements, and including clear roles and reporting schedule, as well as applicable indicators and tracking tools; however, it lacked some important indicators to monitor some outputs and activities.

The M&E plan was well-designed, including overall appropriate indicators for most outputs. Feasible indicators were provided, and most of the targets were consistent with the activities. However, the project results framework, on which basis the M&E plan as formulated, did not reflect clearly all outputs, and some activities, such as the facilitation of private sector investment in local manufacturing capacities and attracting Foreign Direct Investment, were not reflected in any indicators (TE, p. 15). Moreover, the language of some indicators was not clear, and these were difficult to monitor (TE, p. 14).

6.2 M&E Implementation	MS
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The TE rates overall M&E as Satisfactory, and this review rates M&E implementation as Moderately Satisfactory. The M&E plan was generally implemented as expected; however, the plan was never revised or used as project management tool, and results and outcomes were not always monitored.

The reporting was done regularly. Activities were appropriately monitored, ensuring the provision of wellstructured information that enabled project control and allowed to identify actions and project progress (TE, p. 22). However, the project results framework was never revised or adapted after project start, and was not used as project management tool (TE, p. 15). Results and outcome were not always monitored against the Project Results Framework, which was not revised based on the changes in outcomes that were done during project implementation (TE, p. 22).

7. Assessment of project implementation and execution

Quality of Implementation rating is based on the assessment of the performance of GEF Agency(s). Quality of Execution rating is based on performance of the executing agency(s). In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six-point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

The TE rates quality of project implementation as Highly Satisfactory, and this review rates it as Satisfactory. Based on the limited information available in the TE, it emerges that UNIDO ensured the required support and coordination to the project, although there were some shortcomings in the documentation of the financial information.

UNIDO generally documented the financial information and reported it appropriately, including changes to funds allocations as a result of actual planning and budget revisions. However, proper monitoring of co-finance and in-kind contribution was not in place and was not jointly agreed with the GEF Operational Focal Point (TE, p. 21). Moreover, UNIDO gave the needed support and reported to the GEF focal point as mandated (TE, p. 21).

7.2 Quality of Project Execution	HS
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The TE rates quality of project execution as Highly Satisfactory, and this review concurs. Based on the limited information available in the TE, the two Executing Agencies was of high quality and efficient.

The project was executed by the Ministry of Energy, Science, Technology, Environment and Climate (MESTECC), and the Malaysia Green Technology Corporation (MGTC/GreenTech Malaysia). The cooperation among stakeholders was smooth and efficient, despite the fluctuation in key personnel in all ministries and a significant change in the political landscape with a re-shuffling of ministries, which did not have a negative impact on project work (TE, p. 22). The Project National Steering Committee met

annually, as foreseen in the Project Document, and took decisions as mandated, which are well documented in the meeting minutes (TE, p. 6). The GEF Focal Point was included in these meetings and was informed about all changes agreed (TE, p. 30). Its members had a strong involvement and feedback, which ensured high quality and usability of the outcomes (TE, p. 28).

8. Lessons and recommendations

8.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report, including how they could have application for other GEF projects. Lessons must be based on project experience.

The TE (p. 27) presents the following lessons:

• Creating a sustainable marketing demand is essential to ensure long term LCM uptake after project period. Therefore multiple 'viable and locally created' showcases are needed and long-term support for new technologies and services has to be ensured.

• Multiple product and spare part suppliers and maintenance options are needed to create a competitive and conducive environment. For example, the Tesla Cars (tested by Malaysia Green Technology Corporation) create a lot of visibility for Electric vehicles, but without a locally available service station, will not become a viable option.

• Electro mobility has to fit into local needs and the local climate and technology has to be adapted accordingly. Malaysian climate is challenging for new technologies. The hot climate seems to have a negative impact on durability and capacity of the batteries and other parts.

• Electro mobility is seen as an attractive and convenient technology to reduce transport emissions, but most of existing Electric vehicles do not focus on high efficiency. For some companies the decision to utilize Electric vehicles is seen as part of their sustainability strategies and not as business case.

• Trained experts (mostly technicians) should be better 'equipped' to sell new strategies to Policy Makers and Top Management.

The TE (p. 28) presents also some best practices:

• The multi-stakeholder approach to develop the Low Carbon Mobility Blueprint, which contributed to project's success.

• The project enabled a base for open dialogue among experts from ministries and academia, which do not often get the opportunity to interact with industries, and vice versa.

• The Training courses in Electric Vehicle Support Equipment (EVSE) and new standards for Malaysia, to ensure the quality of infrastructure for e-mobility, were locally developed and considered the local needs and demand. They will be used by polytechnics, colleges and universities, and there is also discussion with local automotive players such as BMW to collaborate in the training program.

• The use of local experts with international education for training development and studies to improve local expert's capacity, was crucial for sustainable use of outcomes and could also ensure that studies and trainings really fit to local needs.

• The organization of a meeting linking several Electric Vehicles-related projects and respective experts from China, South Africa and Malaysia in Vienna at UNIDO HQ, to exchange their experiences.

8.2 Briefly describe the recommendations given in the terminal evaluation.

The TE (p. 6) proposes the following recommendations:

• Existing statistics for registered cars do not distinguish between company and private owned cars, nor on gender – To develop appropriate incentive mechanism, it is crucial to know who buys/owns and utilizes Electric vehicles. Private owner (male or female) and companies are attracted by different incentive schemes

• Make sure that decision for GEF-7 successor project is made in time, to enable continuity.

• Develop a Business Model for electric vehicles charging system – At the moment users are not paying for charging their vehicles and the program is subsidized. In the long run, the charging system has to function without funding and subsidies.

• Professional marketing of project outcomes – this project had a very positive impact; however, its visibility should be enhanced by UNIDO and/or GEF.

• Some indicators are not well formulated and cannot be easily monitored and furthermore do not reflect the agreed changes. It is advised to crosscheck indicators regularly during project work and either revise them or define/prepare a procedure for how to monitor them in an unarguable manner.

• To UNIDO HQ and PMU: Prepare a checklist for implementation of GEF projects to ease the execution, including needs and respective means for monitoring project results, such as GHG reduction and different levels of co-finance.

• To UNIDO HQ and PMU: Develop and agree on a scheme to monitor co-finance, investments and Inkind contribution. Start monitoring the same from project start.

• To UNIDO HQ and PMU: Translate the project results framework into a day-to-day monitoring tool to help keep track of overall objective along with activities being implemented. As the project has seen several changes throughout the full project period, these changes should be included in the project results framework.

• To UNIDO HQ and PMU: Develop improved bidding procedure together with local Executing Partners.

• To Ministry of Energy, Science, Technology, Environment and Climate: Come to a decision regarding the planned GEF-7 project as quick as possible, to avoid a time gap between these projects. If the decision is positive, ensure continuity from involved people. Assign a team with clear roles responsibilities and ensure information flow.

• To Ministry of Energy, Science, Technology, Environment and Climate and Malaysia Green Technology Corporation: Support UNIDO team in monitoring of in-kind contribution.

• To Malaysia Green Technology Corporation: With all the data collected so far and including the vast knowledge of involved experts, work on how to create the business case for charging infrastructure should be started. This includes in depth knowledge on 'real life' running costs for EV users and promotion of the same.

• To GEF Focal Point: Support the project teams with clear and agreed rules for monitoring the co-finance (in-kind and cash) in an unarguable manner. The monitoring scheme should be jointly agreed from the very beginning of the project and aligned with all involved stakeholders.

9. Quality of the Terminal Evaluation Report

Before rating the quality of the terminal evaluation, click here to summarize your observations on the sub-criteria: <u>https://www.research.net/r/APR2023</u>.

A six-point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria/indicators of terminal evaluation quality		GEF IEO COMMENTS	Rating
1.	Timeliness: terminal evaluation report was carried out and submitted on time?	The TE was conducted within 6 months from project completion, and was submitted to the GEF portal within 12 months from project completion	HS
2.	General information: Provides general information on the project and evaluation as per the requirement?	The TE provides GEF project ID, lists executing agencies and GEF environmental objectives, and specifies key project milestones; it indicates evaluators that conducted the TE	HS
3.	Stakeholder involvement: the report was prepared in consultation with – and with feedback from - key stakeholders?	The TE identified the key stakeholders, and sought and included their feedback in the report; it sought also the feedback of the OFP, which was finally not given	HS
4.	Theory of change: provides solid account of the project's theory of change?	The TE discusses causal links and mechanisms to achieve results; it does not discuss key assumptions of Theory of Change	S
5.	Methodology: Provides an informative and transparent account of the methodology?	The TE presents the information sources, information on interviewees and on project sites and activities; it describes tools and methods used, and identifies report's limitations	HS
6.	Outcome: Provides a clear and candid account of the achievement of project outcomes?	The TE assesses relevance to GEF and country priorities, of project design, reports performance on all targets and discusses influencing factors; it evaluates efficiency and timeliness of the project	HS
7.	Sustainability: Presents realistic assessment of sustainability?	The TE identifies risks, their likelihood and impacts, and rates overall sustainability	HS

8.	M&E: Presents sound assessment of the quality of the M&E system?	The TE rates M&E design and implementation, and assesses the use of M&E information for project management	HS
9.	Finance: Reports on utilization of GEF funding and materialization of co-financing?	The TE provides data on GEF financing; although data on amount, type, and sources of materialized co-financing were not available from the project, the TE assesses contribution of co-financing to results	HS
10.	Implementation: Presents a candid account of project implementation and Agency performance?	The TE succinctly discusses the performance of implementing agency and executing agencies, discussing factors that affected it and how challenges were overcome	HS
11.	Safeguards: Provides information on application of environmental and social safeguards, and conduct and use of gender analysis?	The TE does not report on environmental and social safeguards; it discusses briefly gender mainstreaming	MS
12.	Lessons and recommendations are supported by the project experience and are relevant to future programming?	The TE presents lessons based on project experience, and discusses their applicability; it presents recommendations specifying the content and action taker	HS
13.	Ratings: Ratings are well- substantiated by evidence, realistic and convincing?	Ratings are supported with sufficient and credible evidence	HS
14.	Report presentation: The report was well-written, logically organized, and consistent?	The TE is written in English; it is well- written and well-organized, easy to read, consistent, and makes good use of charts and tables	HS
	Overall quality of the report		HS

10. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

ANNEX 1. GEF IEO THEORY OF CHANGE FRAMEWORK



Figure 1. The GEF IEO's updated Theory of Change Framework on how the GEF achieves impact

The general framework for the GEF's theory of change (figure 1) draws on the large amount of evaluative evidence on outcomes and impact gathered over the years by the GEF Independent Evaluation Office. The framework diagram has been updated to reflect the IEO's learning since OPS5 (<u>GEF IEO 2014</u>, p. 47-50) about how the GEF achieves impact, as well as the evolution of the GEF's programming toward more integrated systems-focused and scaled-up initiatives.

The framework outlines the three main areas that the IEO assesses in its evaluations: a) the GEF's contributions in establishing and strengthening both the interventions that directly generate global environmental benefits, and the enabling conditions that allow these interventions to be implemented and adopted by stakeholders, b) the GEF's catalytic role or additionality in the way that the GEF provides support within the context of other funding sources and partners, and c) the environmental, social and economic outcomes that the GEF has contributed to, and the behavior and system changes that generate these outcomes during and beyond the period of GEF support.

The circular arrow between impact and progress toward impact, as before, indicates how bringing about positive environmental change is an iterative process that involves behavior change (in the form of a broader group of stakeholders adopting interventions) and/or systems change (which is a key characteristic of transformational change). These three areas of change can take place in any sequence or simultaneously in a positively reinforcing cycle, and are therefore assessed by the GEF IEO as indicators of impact.

Assessing the GEF's progress toward achieving impact allows the IEO to determine the extent to which GEF support contributes to a trajectory of large-scale, systemic change, especially in areas where changes in the environment can only be measured over longer time horizons. The updated diagram in particular expands the assessment of progress towards impact to include transformational change, which specifically takes place at the system level, and not necessarily over a long time period.

The updated diagram also more explicitly identifies the link between the GEF's mandate of generating global environmental benefits, and the GEF's safeguards to ensure that positive environmental outcomes also enhance or at the very least do not take away from the social and economic well-being of the people who depend on the environment. Thus the IEO assesses impact not only in terms of environmental outcomes, but also in terms of the synergies and trade-offs with the social and economic contexts in which these outcomes are achieved.

Intervention	Any programmatic approach, full-sized project, medium-sized project, or enabling activity financed from any GEF-managed trust fund, as well as regional and national outreach activities. In the context of post-completion evaluation, an intervention may consist of a single project, or multiple projects (i.e. phased or parallel) with explicitly linked objectives contributing to the same specific impacts within the same specific geographical area and sector. <u>https://www.gefieo.org/evaluations/gef-evaluation-policy-2019</u>
Activity (of an intervention)	An action undertaken over the duration of an intervention that contributes to the achievement of the intervention's objectives, i.e. an intervention is implemented through a set of activities. E.g. training, (support to) policy development, (implementation of) management approach.
Outcome	An intended or achieved short- or medium-term effect of a project or program's outputs. https://www.gefieo.org/evaluations/gef-evaluation-policy-2019
Impact	The positive and negative, primary and secondary long-term effects produced by a project or program, directly or indirectly, intended or unintended. <u>https://www.gefieo.org/evaluations/gef-evaluation-policy-2019</u>
Environmental outcomes	 Changes in environmental indicators that could take the following forms: Stress reduction: reduction or prevention of threats to the environment, especially those caused by human behavior (local communities, societies, economies) Environmental state: biological, physical changes in the state of the environment http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Social and economic outcomes	Changes in indicators affecting human well-being at the individual or higher scales, e.g. income or access to capital, food security, health, safety, education, cooperation/ conflict resolution, and equity in distribution/ access to benefits, especially among marginalized groups.
Synergies	Multiple benefits achieved in more than one focal area as a result of a <i>single intervention</i> , or benefits achieved from the interaction of outcomes from at least two separate interventions in addition to those achieved, had the interventions been done independently.

ANNEX 2. DEFINITION OF TERMS

	http://www.gefieo.org/evaluations/evaluation-multiple-benefits-gef-support-through-its- multifocal-area-portfolio-map-2016
Trade-offs	A reduction in one benefit in the process of maximizing or increasing another benefit.
	http://www.gefieo.org/evaluations/evaluation-multiple-benefits-gef-support-through-its- multifocal-area-portfolio-map-2016
Broader adoption	The adoption of GEF-supported interventions by governments and other stakeholders beyond the original scope and funding of a GEF-supported intervention. This may take place through sustaining, replication, mainstreaming, and scaling-up of an intervention and/or its enabling conditions (see definitions below).
	http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Sustainability	The continuation/ likely continuation of positive effects from the intervention after it has come to an end, and its potential for scale-up and/or replication; interventions need to be environmentally as well as institutionally, financially, politically, culturally and socially sustainable. <u>https://www.gefieo.org/evaluations/gef-evaluation-policy-2019</u>
Replication	When a GEF intervention is reproduced at a comparable administrative or ecological scale, often in different geographical areas or regions.
Mainstreaming	When information, lessons, or specific aspects of a GEF initiative are incorporated into a broader stakeholder initiative. This may occur not only through governments but also in development organizations and other sectors.
	http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Scaling-up	Increasing the magnitude of global environment benefits (GEBs), and/or expanding the geographical and sectoral areas where they are generated to cover a defined ecological, economic, or governance unit. May occur through replication, mainstreaming, and linking. http://www.gefieo.org/evaluations/evaluation-gef-support-scaling-impact-2019
Transformational change	Deep, systemic, and sustainable change with large-scale impact in an area of major environmental concern. Defined by four criteria: relevance, depth of change, scale of change, and sustainability. http://www.gefieo.org/evaluations/evaluation-gef-support-transformational-change-2017
Additionality	a) Changes in the attainment of direct project outcomes at project completion that can be
Additionality	attributed to GEF's interventions; these can be reflected in an acceleration of the adoption of reforms, the enhancement of outcomes, or the reduction of risks and greater viability of project interventions.
	b) Spill-over effects beyond project outcomes that may result from systemic reforms, capacity development, and socio-economic changes.
	c) Clearly articulated pathways to achieve broadening of the impact beyond project completion that can be associated with GEF interventions.
	https://www.gefieo.org/sites/default/files/ieo/council-documents/files/c-55-me-inf-01.pdf