

Validated Terminal Review Report of the UNEP-GEF project

'Strengthening Low Carbon Energy Island (LCEI)
Strategies in Maldives' (GEF ID 4629)

2015 - 2022









UNEP Climate Change Division Validation date: May 2024



Photos Credits:

Front cover: Consultant

© UNEP/ (Sanjay Dube), United Nations Environment Programme, Review Mission (2023)

This report has been prepared by an external consultant as part of a Terminal Review, which is a management-led process to assess performance at the project's operational completion. The UNEP Evaluation Office provides templates and tools to support the review process and provides a formal assessment of the quality of the Review report, which is provided within this report's annexed material. In addition, the Evaluation Office formally validates the report by ensuring that the performance judgments made are consistent with evidence presented in the Review report and in-line with the performance standards set out for independent evaluations. As such the project performance ratings presented in the Review report may be adjusted by the Evaluation Office. The findings and conclusions expressed herein do not necessarily reflect the views of Member States or the UNEP Programme Senior Management.

For further information on this report, please contact:

Climate Mitigation Office of UNEP

Sudhir Sharma

GEF Task Manager, Climate Change Mitigation Program Management Officer, Energy and Climate, Asia Pacific Office UNEP.

2nd Floor, UN Building, Phra Nakhon, Bangkok 10200, Thailand

Email: sharma66@un.org

Strengthening Low Carbon Energy Island Strategies (LCEI) GEF ID 4629
UMOJA Number: GFL-5070-2720-4F28
P1-33GFL-000596
November 2023
All rights reserved.
© (2023) UNEP

ACKNOWLEDGEMENTS

This Terminal Review was prepared for the Climate Mitigation Office of UNEP by Mr. Sanjay Dube.

The reviewer would like to express his gratitude to all the people met and who contributed to this review, as listed in Annex 7.3.

The review team would like to thank the project team and in particular Mr. Sudhir Sharma, GEF Task Manager, Climate Change Mitigation Program Management Officer, Energy and Climate, Asia Pacific Office UNEP and Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP for their contribution and collaboration throughout the review process.

Sincere appreciation is also expressed to the UNEP officials in Thailand and Kenya who took time to provide comments to the draft report. The reviewer would also like to thank the Climate Change Department, Ministry of Environment, Climate Change and Technology (MECCT), Maldives and the Energy Efficiency Division, Ministry of Environment, Climate Change and Technology, Maldives.

The review consultant hopes that the findings, conclusions, and recommendations will contribute to the successful finalisation of the current project, formulation of a next phase and to the continuous improvement of similar projects in other countries and regions.

Special acknowledgements to the:

- Partners of LCEI Project in Maldives including:
 - Ministry of National Planning, Housing, and Infrastructure
 - Ministry of Economic Development
 - Maldives Customs Service
 - Housing Development Cooperation
 - Maldives National University
 - Maldives Islamic Bank
 - State Trading Organization (STO)
 - Ranfaun Store
 - National Ozone Unit, Maldives
 - EPOC Private Limited
 - Architect Association of Maldives
 - Scout Association of Maldives
 - Maldives Girl Guide Association
 - Utilico Private Limited
 - PwC India / Riyan Private Limited.

BRIEF EXTERNAL CONSULTANT BIOGRAPHY

Mr. Sanjay Dube is the President and CEO of International Institute for Energy Conservation (IIIEC) with over 35 years of experience working in clean energy, energy efficiency, clean air, and clean transport sectors. Prior to taking over as President & CEO, Mr. Dube was leading IIEC's operations in India and South Asia. His dynamic portfolio consists of working with donors and international agencies like World Bank, ADB, UNDP, UNEP, GIZ, USAID, and DFID. In the past, Mr. Dube worked as Chief of Party for USAID's PACE-D Project, as Vice President for Emergent Ventures and as Senior Program Manager with ICF International. Mr. Dube has strong experience in the planning, management, and implementation of large national and regional programs.

Mr. Dube has received his M. Tech. in Soil & Water Conservation Engineering from GB Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, India and completed a Course on 'Energy Planning and Environment' from the University of Oslo, Norway.

ABOUT THE REVIEW

Joint Review: No.

Report Language(s): English.

Review Type: Terminal Review

Brief Description: This report is a management-led Terminal Review of a UNEP/ GEF project implemented between 2014 and 2022. The project's overall development goal was to "mainstreaming energy efficiency measures into policies and standards for buildings to leverage investments in efficient and low carbon technologies and management practices thereby reducing GHG emissions from the sector". The review sought to assess project performance (in terms of relevance, effectiveness, and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The review has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and the relevant agencies of the project participating countries.

Key words: Small Island Developing States; SIDS; Climate Change; Ecosystem Management.

Primary data collection period: March 2023 to May 2023

Field mission dates: 14th May 2023 to 18th My 2023.

TABLE OF CONTENTS

ACKNOW	LEDGEMENTS	
BRIEF EX	TERNAL CONSULTANT BIOGRAPHY	IV
A BOUT T	HE REVIEW	V
PROJECT	IDENTIFICATION TABLE	. 12
EXECUTIV	VE SUMMARY	. 13
1	INTRODUCTION	. 21
2	REVIEW METHOD	. 23
3	THE PROJECT	. 25
3.1	Context	25
3.2	Objective and Components	26
3.3	Stakeholders	29
3.4	Project Implementation Structure and Partners	30
3.5	Changes in Design During Implementation	31
3.6	Project Financing	32
4	THEORY OF CHANGE AT REVIEW	. 33
5	REVIEW FINDINGS	. 38
5.1	Strategic Relevance	38
5.1.1	Rating for Alignment to the UNEP Medium Term Strategy (MTS), Program of W (POW) and Strategic Priorities	
5.1.2	Rating for Alignment to UNEP Strategic Priorities	39
5.1.3	Rating for Relevance to Global, Regional, Sub-regional and National Environment Priorities	
5.1.4	Rating for Complementarity with Existing Interventions/Coherence	40
5.2	Quality of Project Design	41
5.3	Nature of the External Context	43
5.4	Effectiveness	43
5.4.1	Rating for Availability of Outputs	
5.4.2	Rating for Achievement of Project Outcomes	
5.4.3	Likelihood of Impact	
5.5	Financial Management	
5.6	Efficiency	
5.7	Monitoring and Reporting	
5.7.1	Rating for Monitoring Design and Budgeting	
5.7.2 5.7.3	Rating for Monitoring of Project Implementation	
5.8	Sustainability	

5.8.1	Socio-Political Sustainability	54
5.8.2	Financial Sustainability	
5.8.3	Institutional Sustainability	
5.9	Factors Affecting Performance and Cross-Cutting Issues	
5.9.1	Preparation and ReadinessQuality of Project Management and Supervision	
5.9.2 5.9.3	Stakeholder Participation and Cooperation	
5.9.4	Responsiveness to Human Rights and Gender Equality	
5.9.5	Environmental and Social Safeguards	
5.9.6	Country Ownership and Drivenness	
5.9.7	Communication and Public Awareness	58
6	CONCLUSIONS AND RECOMMENDATIONS	59
6.1	Conclusions	59
6.2	Summary of Project Findings and Ratings	60
6.3	Lessons Learned	67
6.4	Recommendations	70
7	ANNEXES	72
7.1	Response to Stakeholder Comments	72
7.2	Review Framework / Matrix	76
7.3	People Consulted During the Review	77
7.4	Key Documents Consulted	79
7.5	Review Itinerary	80
7.6	Project Budget and Expenditures	84
7.7	Financial Management	85
7.8	Communication and Outreach Tools	86
7.9	Brief CV of the Reviewer	87
7.10	Review TORs	88
7.11	GEF Portal Inputs (For GEF Funded Projects)	110
7.12	Implementation Plan of Recommendations	113
7.13	Quality Assessment of the Review Report	124
List of	Tables	
Table 1:	Summary of AssessmentError! Bookmark not	defined.
	Project Components, Outputs and Activities	
	Project Stakeholders	
	Availability of Outputs	
	Project Component wise Budget and Expenditure	
	Review Rating Table	
Table 7:	GEF Portal Inputs	110

List of Figures

Figure 1: Map of Project Area	11
Figure 2: Project Organogram ad Key Partners	3
Figure 3: Reconstructed TOC at the Terminal Review	37
Figure 4: Project Organizational Structure	42
Figure 5: Institutional Structure of the Project	43

List of Acronyms

AAM	Architect Association of Maldives	
ACE	Association of Civil Engineers	
AS	Assumption	
BM	Bank of Maldives	
BSP	Bali Strategic Plan	
CC	Climate Change	
EA	Executing Agency	
EE	Energy Efficiency	
EIA	Environment Impact Assessment	
FSP	Full Scale Proposal	
GEF	Global Environment Facility	
GHG	Green House Gas	
GWP	Global Warming Potential	
HDC	Housing Developing Cooperation	
HDFC	Housing Development Finance Corporation	
ID	Impact Driver	
LCEI	Strengthening Low Carbon Energy Island Strategies Project	
MACI	Maldives Association of Construction Industry	
MATI	Maldives Association of Tourism Industry	
MCS	Maldives Customs Services	
M&E	Monitoring and Evaluation	
MEA	Maldives Energy Authority	
MED	Ministry of Economic Development	
MEE	Ministry of Environment and Energy	
MECCT	Ministry of Environment, Climate Change and Technology	
MGGA	Maldives Girl Guide Association	
MIB	Maldives Islamic Bank	
MoFT	Ministry of Finance and Treasury	
MoHI	Ministry of Housing and Infrastructure	
MoT	Ministry of Tourism	
MNPHI	Ministry of National Planning, Housing, and Infrastructure	
MNU	Maldivian National University	
MP	Maldives Polytechnic	
MSP	Medium Scale Proposal	
MTR	Mid-term Review	
MTS	Medium Term Strategy	
NGO	Non-governmental Organization	
NOU	National Ozone Unit	
ODP	Ozone Depleting Potential	
PoW	Program of Work	
PM	Project Manager	
PMU	Project Management Unit	
PPG	Project Preparation Grant	

PRF	Project Results Framework
ProDoc	Project Document
RE	Renewable Energy
	••
ROAP	Regional Office in Asia and Pacific
SAM	Scout Association of Maldives
SCP	Sustainable Consumption and Production
SEC	State Electric Company
SIDS	Small Islands Development States
STELCO	State Electricity Company
ToC	Theory of Change
ToR	Terms of Reference
TR	Terminal Review
URA	Utility Regulatory Authority
USD	United States Dollars
WAMCO	Waste Management Corporation Ltd

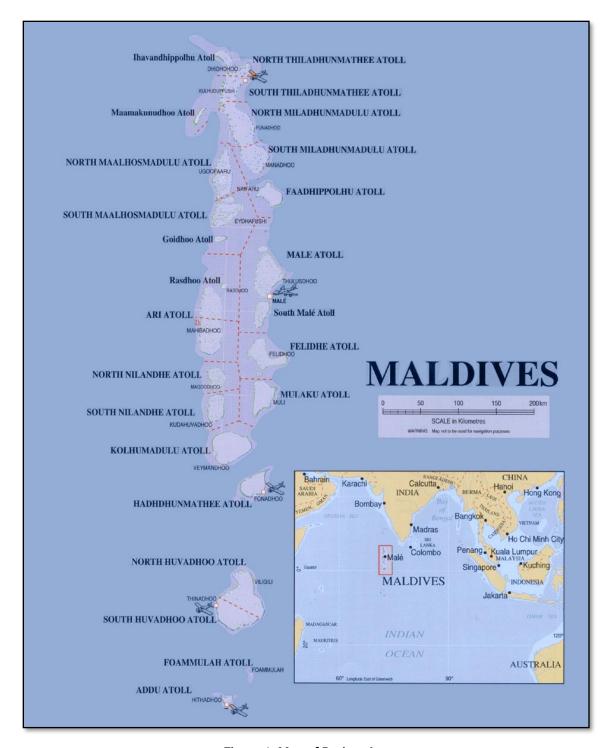


Figure 1: Map of Project Area

PROJECT IDENTIFICATION TABLE

Project Title:	Strengthening Low Carbon Energy Island Strategies (LCEI)			
Executing Agency:	Ministry of Environment, Climate Change and Technology (MECCT), Maldives			
Project Partners:	Not applicable			
Geographical Scope:	Country wide			
Participating Countries:	Maldives			
GEF Project ID:	4629	UMOJA Number*1:	GFL-5070-2720-4F28 P1-33GFL-000596	
Focal Area(s):	Climate Change	GEF OP #:	5	
GEF Strategic Priority/Objective:	CC 2	GEF Approval Date*:	August 18, 2014	
UNEP Approval Date:	April 03 2015	Date of First Disbursement*:	May 11, 2015	
Actual Start Date ² :	September 15, 2015	Planned Duration:	48 months	
Intended Completion Date*:	March 31, 2019	Actual or Expected Completion Date:	30 June 2022	
Project Type:	FSP GEF Allocation*:		3,885,000	
PPG GEF Cost*:	68,000 PPG Co-financing*:		150,000	
Expected MSP/FSP Co-financing*:	34,455,835	Total Cost*:	38,558,835	
Mid-term Review (Planned date):	Mid 2017	Terminal Review (planned date):	July 2022	
Mid-term Review (Actual date):	April 2018 (started)	Terminal Review (Actual date):	December 2022 (started)	
Date of last Steering Committee Meeting:	October 21, 2021	No. of Revisions*:	5	
Disbursement as of 30 June 2021*:	2,458,328	Date of Last Revision*:	December 31, 2021	
Date of Planned Completion ³ *:	June 30, 2022 Date of Planned Financial Closure*:		December 31, 2022	
Total Co-financing realized as of 30 June 2021:	26,746,300	Actual Expenditures Reported as of 30 June 2021 ⁴ :	1,442,853.50	
Leveraged Financing:5	Not applicable	Actual Expenditures entered in Umoja as of 30 June [2022] *:	3,760,915.64	

¹ Fields with an * sign (in yellow) should be filled by the Fund Management Officer

² Only if different from first disbursement date, e.g., in cases were a long time elapsed between first disbursement and recruitment of project manager.

³ If there was a "Completion Revision" please use the date of the revision.

⁴ Information to be provided by Executing Agency/Task Manager

⁵ See above note on co-financing.

EXECUTIVE SUMMARY

PROJECT BACKGROUND

- 1. In line with the UNEP Evaluation Policy⁶ and the UNEP Programme Manual⁷, this Terminal Review (TR) was undertaken at operational completion of the project to assess project performance (in terms of relevance, effectiveness, and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The Review has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and Government of Maldives. Therefore, the Review will identify lessons of operational relevance for future project formulation and implementation.
- 2. The UNEP is the GEF implementing agency (IA) for the Low Carbon Energy Island Strategies (LCEI) Project which was executed by the Climate Change Department of the Ministry of Environment, Climate Change and Technology (MECCT), Republic of Maldives initially over a period of 4 years (2015-2019) and later extended until June 2022. A Mid Term Review (MTR) was undertaken in April 2018 and completed in August 2018. The scope of the Terminal Review includes activities undertaken since the project inception (September 2015) up to project completion (June 2022).
- 3. For effective implementation of the project, a Project Management Unit (PMU) was based at MECCT and consisted of a full time Project Manager, a full time Monitoring and Evaluation Officer, a full time Project Accountant, a full time Project Assistant, a full time Knowledge Management Administrator, and the support of an International Expert on project output quality assurance.
- 4. The Terminal Review findings and recommendations are based on the meetings conducted with different stakeholders during the mission and the analysis of available documents.

THIS REVIEW

5. The Terminal Review of LCEI Project was an in-depth exercise using a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative review methods were used as appropriate to determine project achievements against the expected outputs, outcomes, and impacts. Close communication with the project team was maintained and information exchange was promoted throughout the review implementation phase in order to increase stakeholder ownership of the review findings. Where applicable, references to the consultation meetings and the project documents have been provided.

KEY FINDINGS

6. Table 6 in the Conclusions section below provides a summary of the assessment according to the given criteria and their corresponding rating. Overall the performance of the project is assessed at the Satisfactory level. Individual criteria are rated as follows: Strategic Relvance (Highly Satisfactory); Quality of Project Design (Satisfactory); Nature of External Context

⁶ https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies

⁷ https://wecollaborate.unep.org

(Moderately Favourable); Effectiveness (Satisfactory), comprising outputs - Highly Satisfactory; outcomes - Highly Satisfactory; impact - Satisfactory; Financial Management (Highly Satisfactory); Efficiency (Satisfactory); Monitoring and Reporting (Satisfactory); Sustainability (Likely) and Factors Affecting Performance (Highly Satisfactory).

CONCLUSIONS

- 7. The Maldives is at the forefront of vulnerability to the impacts of climate change. Climate variability is imposing increasingly untenable social, environmental, and economic costs on the Maldives. The country realized that without concerted actions, at both national and international levels, this trend is likely to continue well into the future. All plausible climate change scenarios suggest that there would be unprecedented and potentially devastating impacts on natural and human systems of Maldives.
- 8. The Ministry of Environment, Climate Change and Technology (MECCT) being the main agency responsible for the planning and execution of activities on environmental protection, preservation, and management, has taken the initiative to conceptualize and implement the LCEI Project with funding support from UNEP/GEF. The national focal point of Green Climate Fund (GCF), GEF Operation Focal point and the UNFCCC are located at the MECCT. The Climate Change Department at the Ministry coordinates the activities related to climate change, in close collaboration with other relevant Ministries and agencies.
- 9. The "Strengthening Low Carbon Energy Island Strategies (LCEI) Project" was developed with the objective of strengthening the building sector of the Maldives to address energy efficiency issues and promote investment in energy efficiency technologies and design. The project was designed with an extensive stakeholder engagement (as described in the ProDoc and confirmed in the interviews), managed to produce the desired outcomes. The project ensured that it was coherent and complementary to other initiatives, which in turn have played an important role in the achievement of the project. The project worked well with all the partner agencies and key stakeholders in Maldives.
- 10. The MECCT has shown a great amount of commitment to the implementation of the project. This is demonstrated by the fact that MECCT took the initiative of developing the ProDoc along with the UNEP team prior to its submission for GEF approval. MECCT also ensured the implementation with the help of local stakeholders. The UNEP coordinated the reporting requirements to GEF, performing M&E, and providing direction through the Steering Committee for the achievement of project's result framework.
- 11. The intervention of the LCEI project found justified as it has an objective to mainstream energy efficiency measures into housing policies, guidelines, standards and building practices in Maldives. The project was expected to contribute to reducing the energy demand of buildings through improved building design and deployment of more energy-efficient appliances used in buildings, thus reducing the demand for energy, and contributing to a substantial abatement of GHG emissions.
- 12. The planned project outputs for each of the project components were available, and the amount of policy and project action observed under various activities showed that the project stimulated concrete actions in accelerating the efforts for decarbonizing the building sector in Maldives. There is a political will in Maldives to sustain the project results. While the key drivers and assumptions to translate project outputs to outcomes, outcomes to intermediate states and then to the overall project impact are largely in place, there is more scope for private sector to make financial commitments for investing in building energy efficiency. The recommendations made in MTR have led to mobilize increased involvement of the private sector. The commitments made and delivered by the Maldives Islamic Bank is one of the best examples about private sector commitments. The EE appliance and EE buildings initiatives should

- continue working with appliance suppliers, architects, and developers to mobilize their participation. The building and appliance market in Maldives has great potential for implementation of EE.
- 13. The project established a Project Management Unit (PMU) within the MECCCT. The PMU was managed by a dynamic team of professionals who were in the phase of their learning curve than in a capacity to deliver the project outputs. PMU also hired the services of national and international consultants to deliver the project outcomes. The M&E conducted by the UNEP was generic, but the project budget was managed efficiently after the initial delays during the first two and half years.
- 14. The Project Steering Committee played its role and guided the project throughout the implementation phase. The Steering Committee was composed of high-level stakeholders and/or experts who provided advice and guidance on key issues and the general course of the project's operation. Although the representation of MECCT officials dominated the Steering Committee, the stakeholders from other Ministries and guest invitees from partner agencies have also contributed to decision making and reviewing of progress against annual work plans.
- 15. The UNEP played the supportive role in providing direction for the project to achieve the results. UNEP ensured technical and management contribution to support the smooth execution of the project. The project benefitted through leveraging the experiences gained by UNEP from regional projects into this national project.
- 16. The project is strategically relevant because of its alignment with the global, regional, and national environmental priorities, it has been effective in delivering the desired outputs and outcomes. The project design was satisfactory, and the implementation of key outputs helped in building the capacities of the public and private sector stakeholders.

LESSONS LEARNED

- 17. **Lesson Learned #1:** LCEI is the first project implemented in Maldives focusing on energy efficiency in buildings and home appliances. The project targeted the key areas like policy, regulations, financing, implementation of pilots, capacity building of public and private sector stakeholders, awareness raising, knowledge management, and reporting to international commitments of Maldives. Building on parallel activities on-going in the country, the project paved the way to drive some of the regulations under the building construction act, the energy act, and the climate change act. The project facilitated the enactment of Construction Act (4/2017), which paved the way to create an enabling environment for promoting energy efficiency in the building sector. In addition to this, Maldives Energy Act (18/2021) was ratified on 11th October 2021. It establishes a legal framework of standards and laws for the provision of energy in the Maldives, dealing with both the production and consumption of energy. The standards and labelling program were launched on 16th September 2021 as a voluntary program. These are excellent contributions to the country, and it can be replicated in other SIDS.
- 18. Lesson Learned #2: The Project Management Unit at MECCT collaborated well with the National Ozone Unit to streamline the standardization for energy labelled appliances. Maldives has set an example through developing the energy efficiency labelling program keeping the requirements of national ozone targets in mind. The energy efficiency labelling for refrigerants containing air conditioners and refrigerators is covered in the program. The Hakathari label provides the ODP and GWP level information of the refrigerant. This is one of the leading examples as many countries at advanced stages of labeling program implementation don't yet

have this kind of information displayed on energy efficiency labels. The process is well streamlined so that appliances being vetted for energy efficiency labelling will also be checked for ODP and GWP requirements.

- 19. Lesson Learned #3: The MECCT team not only did activities stated in project document they have been activity seeking opportunities to partner with various organization to achieve the project objectives. Such as conducting the first Energy Audit Certification course through the Association of Energy Engineers. Other such initiative is capacity building arrangements that was done during the early years of the project where the team secured partnership with Energy Efficiency Services Limited (EESL), India to conduct tailor made course for standards and labelling program. This was one of the key sustainable capacity building activities organized by the project team which led to the successful implementation of the Hakthari Program.
- 20. Lesson Learned #4: The project was specifically designed to provide the foundation needed for sustainable energy efficiency actions in the Maldives. The foundation of the project was the building of local capacity to locate areas where improved energy efficiency is needed and the development of long-term financing mechanisms through local institutions to provide for the continuing investment in energy efficiency measures. The project achieved success in building the local capacity in Maldives. The project was able to engage with stakeholders from private sector, Government Ministries and departments, NGOs, financing institutions, architect association and the academia in Maldives. The partnership build with Maldives National University and the Maldives Islamic Bank are the successful examples for replication in other similar countries. The Maldives Islamic Bank has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. Similarly, the Maldives National University designed courses for the undergraduate and post graduate students.
- 21. **Lesson Learned #5:** The project highly focused on Capacity development to sustain the momentum. Several capacity building activities were undertaken by the project in the areas of energy auditing, developing, and implementing standards and labelling programs, energy efficiency financing, energy efficient building designs and energy modelling of buildings, training of trainers, life cycle costing, training for marketing and distribution of energy efficient appliances. This has built the local capacity to sustain the project outcomes even after the completion of implementation period.
- 22. Lesson Learned #6: Considering that the implementation of energy efficiency in building would require energy audits and technical expertise, the project has organized focused training sessions for energy auditors with support from the international organization "Association of Energy Engineers". This engagement has allowed internationally recognized energy auditor certifications for Maldivian energy auditors. In addition to this, it has also opened networking avenues for increasing their knowledge and continuing their professional development in this area. The project has engaged the Maldives National University, a public educational institute to sustain the capacity building efforts under the project. MNU worked in partnership with the project to update their course curriculums to incorporate energy efficiency and conservation aspects into their courses and developed energy auditor's module (stand-alone course) which would help in capacity building of professionals in the Maldives. For a small country like Maldives, this innovative approach of developing course curriculums will have a positive impact on continued capacity building activities.

- 23. Lesson Learned # 7: In partnership with the Maldives Islamic Bank (MIB), the project was able to launch a financing program to promote the purchase of energy efficiency labelled appliances. MIB is one of the most prominent banks in the Maldives with an established customer base attaining financing for small goods and appliances. Additional benefits were attained by leveraging private sector financing for the implementation of the financing program; and capturing the bank's interest in expanding their portfolio into the area of climate financing.
- 24. Lesson Learned #8: Institutional arrangements have been established at MECCT to continue and strengthen the Hakathari labelling program. MECCT has planned the activities as the next steps for continued implementation and monitoring of the program. These activities include the implementation of standards and labelling program; implementation of capacity building sessions for standards and labelling program; implementing public awareness activities on standards and labelling program; developing and gazetting the energy audit regulation; and developing and gazetting the new building certification. Getting the approvals from the Minister of MECCT and the Economic Council at the Ministry of Economic Development confirms the commitment to continue implementation. The LCEI Project has already integrated the processes and procedures into the functions of MECCT and Maldives Customs Services (MCS). For the implementation of the labelling program, a separate section was established at the Energy Department of the MECCT. This ensures the sustainability of the program.
- 25. Lesson Learned #9: The building sector is the major user of Refrigeration and Air Conditioning (RAC) equipment. Guidelines, codes for promoting green/ energy efficient building material, and design and building construction using climate friendly alternatives of HCFC in RAC is a useful tool for achieving accelerated phaseout objectives. The draft compliance documents of the building code have been incorporated with the Energy Efficiency provisions. Compliance documents are developed for the Ministry of National Planning, Housing, and Infrastructure (MNPHI). MNPHI has ownership of the compliance documents under the Construction Act of Maldives. MNPHI had committed to continue with the legal process for finalization of the compliance documents. The following compliance documents were developed with respect to the Energy Efficiency Guideline for Buildings in the Maldives: a) Ventilation, b) Natural Light, c) Artificial Light, d) Energy Efficiency. As such, in addition to the efficiency level, the Hakathari Label also identifies the refrigerant information in RAC equipment. Presently, it is set to eliminate the equipment containing ozone depleting substances and provides the avenue for implementing standards for GWP in RAC equipment.
- 26. Lesson Learnd #10: Considering that the children and youth can play a major role in generating the awareness about energy efficiency in energy consumers, general public, their family members and the women, intense awareness raising sessions were organized by LCEI Project for school students, teachers and the associations like Maldives Girl Guides Association (MGGA) and the Scout Association of Maldives (SAM). The energy efficiency badge helped in raising awareness and increasing the knowledge on energy, energy efficiency and climate change in the youths. The badge was developed in cooperation with the MGGA and the SAM. The Scout Association of Maldives is a member of the World Organization of Scout Movement (WOSM) since 23 July 1990. The mission of Scouting is to contribute to the education of young people, through a value system based on the Scout Promise and Law to help build a better world where people are self-fulfilled as individuals and play a constructive role in society. The Maldives Girl Guides Association is the largest voluntary organization for girls and young women in the Maldives. They are a member of World Association of Girl Guides and Girl Scouts (WAGGGS) which is of the world's largest voluntary organization for girls and young women. The project supported both organizations with printed badges to initiate the implementation. As there is a

small fee associated with all badges, the associations will be able to continue the energy efficiency badge in a sustainable manner after the project ends.

RECOMMENDATIONS

- 27. The key recommendations are summarized below.
- 28. **Recommendation #1:** The project has established excellent quality of partnerships with both public and private sector institutions in Maldives and with many international organizations. The continued implementation of energy efficiency guidelines for buildings, building code, energy efficiency labelling program for appliances and the training of energy auditors need funding support to sustain. Thus, it is recommended that MECCT should ensure funding either from its own resources or write a proposal to the Green Climate Fund or to other international funding agencies. The Hakathari labeling program is an excellently designed program and need funding support to continue transforming the energy efficiency market in Maldives.
- 29. Recommendation #2: The project has collaborated well with the National Ozone Unit to design an effective energy efficiency labeling program and the energy efficiency guidelines for buildings. The Hakathari label displays the ODP and GWP level information of the refrigerant. This has eliminated the need for an additional process to implement refrigerant requirements in electrical appliances. This coordination between the Energy Efficiency Section at MECCT and the National Ozone Unit should continue.
- 30. Recommendation #3: The Energy Efficiency Section under MECCT should recruit more importers and retailers to ensure a hundred percent import of energy efficient appliances. At the time of TR, only two importers were found associated with the project. Others are still importing inefficient appliances. The products currently under the labelling program are zero duty products, so there are no financial incentives for the importers to participate in the program. During the Covid times, the Maldives Parliament has passed an order to allow zero duty imports of all home appliances. The MECCT discussed this issue with Parliament during the import duty revision. It was informed that next revision can be made to give incentives to energy efficient products once labelling program is fully operational. After the completion of project duration, the efforts to systematically approach the Government and the importers have diluted. It is recommended that MECCT should continue with their efforts to persuade the Government of Maldives to amend the Order to discourage zero duty imports of appliances.
- 31. **Recommendation #4:** With support from LCEI Project, the Maldives National University (MNU) has developed energy efficient building design courses for undergraduate and post graduate architect students. The effective delivery of these courses needs funding support for infrastructure development and conducting on-the-job training. The Maldives Government should develop a mechanism to support this initiative as the future transformation of energy efficient building market would heavily depend on locally trained architects and experts. Also, the Maldives Architects Association should volunteer to assist MNU in teaching the new courses.
- 32. **Recommendation #5:** The Maldives Islamic Bank (MIB) has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. The MIB has also launched an innovative financing scheme for the purchase of Hakathari labelled air-conditioners. At the time of TR, only two consumers had taken the benefit of the financing scheme. This may be due to the first-time exposure to the financing schemes for the citizens and they need more time to adopt and decide on the use of

this facility. Also, the initial phase for raising awareness about the financing scheme was slow to pick-up pace. Given the above and in consideration of the fixed time frame for the project execution, the outreach plan to popularize the scheme couldn't work effectively. Thus, it is recommended that the MECCT and the Energy Efficiency Section should work with MIB and encourage them to design and launch a few effective consumer awareness programs to promote the purchase of Hakathari labelled air-conditioners. The bank has the financial resources to cover the costs. It is only the technical support that is needed.

- 33. Recommendation #6: The Housing Development Cooperation (HDC) now known as URBANCO is a government promoted company working for certification of buildings in Maldives. URBANCO has adopted BREEAM Building certification system for certification of commercial and other categories of green buildings in Maldives. HDC (now URBANCO) was a member of the LCEI Project Steering Committee and facilitated by providing data for the development of the energy efficiency guideline. The LCEI Project has supported HDC to attain the BREEAM "very good" certification for their upcoming Green Office Building. At the time of TR, URBANCO still didn't have the capacity to assess commercial buildings as the available assessors were trained only in assessment of community housing projects and not the commercial buildings. URBANCO should be encouraged by the Maldives Government to engage more trained experts to accelerate the certification of energy efficient or green buildings.
- 34. Recommendation # 7: The projects like LCEI require continuous encouragement from UNEP to involve all relevant stakeholders and other project partners to ensure that specific plans and engagement strategies be developed to foster widening the base of stakeholders that can participate in building the actions for energy efficiency implementation, particularly regarding marginalized gender groups and urban poor. UNEP should continue encouraging MECCT for being sensitive towards gender and urban poor while scaling up the implementation of building and appliance sector energy efficiency projects.
- 35. **Recommendation #8:** The Maldives Customs is playing a key role in monitoring the import of energy efficient home appliances from Malaysia and other countries. During the interview with Maldives Customs, it became apparent that the appliances which are being imported do come with the label on them but there is no label on the packing boxes. This makes it difficult to cross verify the appliances without opening the box. Thus, it is recommended that Maldives Government should make it mandatory for importers to import the appliances with energy efficiency label displayed on both the appliance and the packing boxes.

VALIDATION

The report has been subject to an independent validation exercise performed by UNEP's Evaluation Office. The overall project performance rating for the LCEI project, set out in the Conclusions and Recommendations section, has not been adjusted as a result. The overall project performance is validated at the **Satisfactory** level. The Evaluation Office has found the overall quality of the report to be **Moderately Satisfactory** (see Annex 7.11).

1 Introduction

- 36. The building sector in Maldives accounts for the highest share of electricity that is mostly generated in power plants that are dependent on imported diesel as fuel and contribute to local and global environmental pollution. Electricity is used to meet the cooling, lighting, and motive power needs of residential, institutional, and commercial buildings, including tourist resorts. Most building owners have not adopted strategies to reduce their electricity needs in the past, mainly due to the poor building designing practices, lack of consumer motivation in the residential sector due to low electricity tariff, inadequate energy efficiency capacity, lack of institutional structure and strategies to implement policies that support low-carbon initiatives (e.g., the national energy policy adopted in 2009).
- 37. The intervention of the GEF project is justified as it has an objective to mainstream energy efficiency measures into housing policies, guidelines, standards and building practices in Maldives. The project was expected to contribute to reducing the energy demand of buildings through improved building design and deployment of more energy-efficient appliances used in buildings, thus reducing the demand for energy, and contributing to a substantial abatement of GHG emissions.
- 38. The project received financial support from the GEF under its Operational Program 5 from 2010 to 2014, focusing on Priority-2: Climate Change Mitigation. The project is aligned with UNEP's 4-year Medium Term Strategy (MTS) focusing on climate change with the following expected accomplishment: that the countries make sound policy, technology, and investment choices that lead to a reduction in greenhouse gas emissions and potential co-benefits, with a focus on energy efficiency. The project also contributes to a key component of UNEP's 2014-15 Program of Work (PoW): Energy Efficiency is improved in partner countries to help reduce greenhouse gas emissions as part of their low emission development pathways.
- 39. This full-scale project (FSP) received GEF approval on 18 August 2014 with an allocation of US\$3,885,000 from GEF Trust Fund and committed in-kind co-financing of US\$ 250,000 from UNEP and US\$ 34,205,835 from the Maldivian Government. UNEP, the GEF implementing agency (IA) for this project gave approval to the Ministry of Environment, Climate Change and Technology (MECCT) (at that time known as the Ministry of Environment and Energy (MEE)) on 3 April 2015 to execute the project through its Energy Department with an expected completion date of March 2019. UNEP made the first cash disbursement to the Executing Agency (EA) on 11 May 2015, but the project got started on 15 September 2015. The Mid-Term Review was conducted between April and August 2018. Based on the Mid-Term Review recommendations, the Project Steering Committee recommended an extension of the project period until December 2020. In December 2020, the project was given a second extension until December 2021. Finally, in February 2022, the project period was extended a third time until June 2022.
- 40. In line with the UNEP Evaluation Policy and the UNEP Program Manual, a Terminal Review (TR) was to be undertaken after the completion of project implementation. Accordingly, the Terminal Review was undertaken between December 2022 and July 2023, including a mission to Male' from 14 to 18 May 2023. The Terminal Review is undertaken at operational completion of the project to assess project performance (in terms of relevance, effectiveness, and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The Review was conducted with two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP

and Government of Maldives. Therefore, the Review focused on identification of lessons of operational relevance for future project formulation and implementation.

2 REVIEW METHOD

- 41. The Terminal Review of LCEI Project was an in-depth exercise using a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative review methods were used as appropriate to determine project achievements against the expected outputs, outcomes, and impacts. Close communication with the project team was maintained and information exchange was promoted throughout the review implementation phase in order to increase stakeholder ownership of the review findings. Where applicable, references to the consultation meetings and the project documents have been provided.
- 42. The findings of the Review were based on the following:
 - a) A desk review of:
 - Relevant background documentation.
 - Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget.
 - Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.
 - Project deliverables (e.g., publications, assessments etc).
 - Mid-Term Review report of the project.
 - Reviews of similar projects.
 - **b) Interviews** (individual or in group) with:
 - UNEP Task Manager (TM).
 - Project Manager (PM)
 - Project management team.
 - Project partners, including relevant Ministries and Departments of the Government responsible for EE of appliances and buildings, as well as the university.
 - Relevant resource persons.
 - Representatives from civil society and specialist groups (such as women's, farmers, and trade associations etc).
 - c) Field visits
 - d) Available tools, templates, and guidance notes
- 43. The list of tools, templates and guidance notes used for the Terminal Review is provided below. Every effort has been made to maintain transparency in the review process through ensuring active participation of key officials from PMU and UNEP. Where encountered, the limitations have been documented in the review report.
- 44. The following tools, templates and guidance notes were used for review process:
 - Review Criteria
 - Review Ratings Table
 - Inception Report Structure and Contents
 - Main Review Report Structure and Contents
 - Use of Theory of Change in Project Reviews
 - Financial Tables
 - In Report Template Presenting Recommendations and Lesson Learned

- Important note on report formatting and layout
- 45. The ToR was quite exhaustive and raises several potentially relevant review questions. These review questions fall under the following review criteria specified in the ToR: (a) Strategic relevance; (b) Quality of project design; (c) Nature of External Context; (d) Effectiveness; (e) Financial management; (f) Monitoring and reporting; (g) Sustainability; and (h) Factors and processes affecting project performance.
- 46. The assessment of results, outcomes, intermediate states, impact, drivers, and assumptions were conducted carefully. The indicators stated in the ProDoc and annual project reports were utilized as much as possible for the review questions related to the delivery of outputs and outcomes.
- 47. In addition to fulfilling the review criteria, attempt was made to address the following strategic questions:
 - **Q1:** What are the next set of measures, building on the project outputs and outcomes, that would enable the country to meet its NDC targets and Long-Term Net Zero Emission goals?
 - **Q2:** What measures could be taken to more effective uptake and adoption of outputs by the stakeholders?
 - **Q3:** (Where relevant) What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?
- 48. These questions and other additional questions provided in the TOR have been addressed in Chapter-5: Review Findings.
- 49. Limitations: The MECCT involved a good number of organizations in the project implementation. Many training and capacity building programs were organized for stakeholders during the last 2-years of the LCEI project. A review of the impact of all the capacity building programs was not possible due to the time lag and transfers of some of the key participants to other positions within their respective organizations / Ministries. Within the limited time of the field mission, it was not possible to identify and engage with all the stakeholders for cross verification of some of the reported results.
- 50. To ensure that the PMU and LCEI Project partners find the recommendations relevant and useful, the following approach was adopted by the consultant:
 - a. The project results framework was analysed during the mission. To the extent possible, the assumptions and impact drivers were tested with key stakeholders.
 - b. Interviews were conducted in a semi-structured manner, allowing the interviewees to ask questions to the consultant and share their perspectives and priorities.
 - c. To the extent possible, meetings were organised in Malé with the key professionals and beneficiaries who were involved in the project and have contributed effectively to the project.
 - d. At the end of the field mission (on 18th May 2023), a debriefing meeting was organized to share the key findings and recommendations and solicit opinion and feedback from the Project Director, Project Manager, and the staff of PMU.
 - e. The Project Director, Project Manager, and other Staff at PMU also have access to the consultant through e-mail and/or Skype after the field mission for any further discussions.
 - f. The draft TR report submitted to UNEP can be shared with LCEI Project Manager and MECCT for comments, raise questions, provide clarifications, and for further inputs.

3 THE PROJECT

3.1 CONTEXT

- 51. At the time of project design, the UNEP's Medium-Term Strategy (MTS) for 2014-2017 was in place and at the time of implementation, the MTS for 2018-21 was in place. The project is aligned to MTS 2014-17. The key goal of UNEP MTS for 2014–2017 was to catalyse a transition towards low carbon, resource efficient, and equitable development. The project is well aligned with UNEP's sub-program on resource efficiency, and more specifically, sustainable consumption and production (SCP). The three expected accomplishments of this sub-program 6 are:
 - a. Creation of an enabling environment for promoting resource efficiency.
 - b. Enhancing the ability of government, businesses, and other stakeholders to adopt SCP practices; and
 - c. Enhancing the ability of country, business, civil society, and individual consumers to make informed choice for sustainable consumption and lifestyles.
- 52. The project is aligned with UNEP's 2014-2015 Program of Work (POW). In the project identification, resource efficiency sustainable consumption and production (SCP) is considered as UNEP's priority. The contribution of this project to the UNEP's POW should be the Expected Accomplishment B of the sub-program on Climate Change: "Energy efficiency is improved, and the use of renewable energy is increased in partner countries to help reduce GHG emissions and other pollutants as part of their low emission development pathways". The project contributes to both the sub-programs: "Climate Change" and "Resource Efficiency". The fact that the project is targeting low-energy buildings is itself a proof that the aim is to improve energy efficiency and reduce GHG emissions.
- 53. The project is supported by GEF Trust Fund under the strategic objective 2 of the "climate change mitigation", which aims at "promoting market transformation for energy efficiency in industry and the building sector". The planned policies of introducing building codes as energy labelling accompanied by the measures to support financing of energy efficient technologies and appliances are meant to accelerate market transformation compared to the business-as-usual scenario. Lowering energy use in the building sector will contribute to less dependence on diesel for the power plants, hence lower GHG emissions.
- 54. The project also supports UNEP's strategic priorities: the Bali Strategic Plan (BSP) for technology support, capacity building and South-South cooperation. The project is intended to assist the government in promoting, facilitating, and financing environmentally sound technologies. The results achieved in this project would serve to encourage and support other SIDS as well as many small island communities in larger archipelagic countries in replicating low-carbon energy policies and strategies.
- 55. UNEP, through its Regional Office in Asia and Pacific (ROAP), is the implementing agency (IA) for GEF, with the responsibilities to coordinate all reporting requirements, perform M&E and provide direction through the Steering Committee to achieve the project result framework. UNEP is recognized to have the technical and management abilities to support the project. The Ministry of Environment, Climate change and Technology, through its Energy Department, acts as the Executing Agency for the project.

3.2 OBJECTIVE AND COMPONENTS

- 56. The objectives of LCEI Project are to (i) Transform the markets of energy efficiency technologies in the building sector of the Maldives, and (ii) Promotion of energy efficiency investments in buildings.
- 57. The project goal is "to mainstream energy efficiency measures into policies, guidelines, standards and building practices in the Maldives and to achieve a substantial reduction of GHG emissions as a result of improved buildings and building management practices and to leverage substantial investment in activities leading to increased energy efficiency".
- 58. The project falls under UNEP's Sub-program 1: Climate Change, and the expected accomplishments should contribute to: "Countries increasingly adopt and/or implement low greenhouse gas emission development strategies and invest in clean technologies", (i) Increase in the number of countries supported by UNEP that make progress in adopting and/or implementing low greenhouse gas emission development plans, strategies and/or policies, and (ii) Increase in climate finance invested by countries or institutions for clean energy, energy efficiency and/or amount of decarbonized assets.
- 59. The original Project Result Framework (PRF) describes the overall project goal and objective and presents 8 outcomes that are needed to achieve the project objective. The PRF also included the indicators to assess the project objective as well as the project outcomes, along with the baseline, mid-term and end of project targets, and the source to verify the achievements. The PRF was revised after the mid-term review. The revised version has 4 outcomes and 11 outputs. The revision of PRF and the bundling of 8 outcomes to 4 helped the project in delivering measurable results. The thoughtful reworking has improved the reporting and documentation of project results and outputs. This also helped in expediting the implementation of activities which were not started before MTR. The project has identified a list of risks and the assumptions for achieving project outcomes and objectives. There is a section devoted to risk analysis and measures proposed for risk management. Overall, the risk is considered as moderate; it was concluded that with suitable attention and efforts, the desired project objective and outcomes can be achieved.
- 60. The activities to be undertaken to achieve the outcomes and outputs are presented in the revised version of the PRF below.

Table 1: Project Components, Outputs and Activities

Tuble 1. I Toject components, outputs and Activities			
Components/Outcomes	Outputs	Activities	
C1. Policy, institutional and legislative frameworks are adopted to lower energy use in the buildings.	O1.1. Energy efficiency requirements are incorporated in the Maldives' building code	A1.1.1. Study and identify measures that can help to lower energy consumption through climatically suited building design and retrofitting of existing buildings A1.1.2. Propose guidelines for cost-effective and practical energy efficiency improvement in new and existing buildings in the context of Maldives A1.1.3. Conduct workshop for building sector stakeholders to validate guidelines A1.1.4. Using the guidelines, incorporate energy efficiency requirements in Maldives' building code	

Components/Outcomes	Outputs	Activities
-	-	A1.1.5: Development of certification scheme for Hulhumale' in collaboration with Housing Development Cooperation (HDC)
	O1.2. Energy labelling program developed, and implementation initiated	A1.2.1. Conduct market assessment and consumer awareness study to develop baseline for appliances energy efficiency and understand consumer behavior patterns A1.2.2. Develop labelling program and propose procedure to implement and monitor the implementation of the energy labelling program A1.2.3. Process and procedures for implementing the labelling scheme integrated into respective authorities' mandate A1.2.4: Initiate voluntary labelling scheme implementation A1.2.5: Update government procurement policy to incorporate use of life cycle costing to promote procurement of energy efficient appliances in public buildings
	O2.1. Innovative financing is demonstrated for energy efficient design of buildings	A2.1.1. Assess the existing environment for financing new buildings A.2.1.2. Develop innovative financing schemes to incentives construction of new energy efficient buildings A2.1.3. Provide technical assistance to design energy efficient building and attain building design certification A2.1.4. Provide financial support to implement energy efficiency measures in identified building(s) based on innovative financing options identified
C2. Pilots of innovative financing to lower energy use in the buildings are demonstrated.	O2.2. Innovative financing is demonstrated for energy efficiency retrofits in buildings	A.2.2.1. Assess the existing financial environment for financing building retrofits A.2.2.2. Select public building(s) and conduct investment-grade audits to identify cost-effective energy efficiency improvements A.2.2.3. Develop innovative financing schemes to incentivize retrofits in buildings A.2.2.4: Implement the cost-effective efficiency measures through innovative financing schemes and validate the savings accrued from the retrofits
	O2.3. Innovative financing is demonstrated for high-efficiency appliances	A2.3.1. Assess the existing environment for financing appliances used in buildings A2.3.2. Identify key partners and develop an innovative funding mechanism that supports the purchase of high energy efficiency appliances and recovers the capital through operational energy cost savings

Components/Outcomes	Outputs	Activities
		A2.3.3. Implement a pilot funding mechanism for energy efficiency appliances and provide support to monitor and fine tune the business model
	O2.4: Scaling up financing for energy efficiency appliances and buildings	A.2.4.1: Based on the results, develop a full-scale system that allows the financing of high efficiency appliances and building energy retrofits
C3. Human Resources are enhancement to lower energy use and GHG emissions in buildings.	O3.1. Educational and training programs focused on climatically-suited lowenergy building design	A3.1.1. Develop and support academic programs on low-energy building design in the tropics in collaboration with educational establishments that offer degree programs related to building construction
	are developed	A3.1.2. Develop and support training programs on low-energy building design in the tropics for professionals (developers, architects, engineers, government officials) in collaboration with Ministry of Housing and Infrastructure and MEA A3.1.3. Develop and support training programs on financing low-energy buildings for banks and financial institutions that provide long-term building loans
	03.2. Training programs focused on energy efficiency	A3.2.1. Develop and support training programs on conducting investment-grade energy audits of buildings
	retrofits of buildings are developed	A3.2.2. Develop and support training programs for buildings and facilities managers on adopting energy management system for buildings
	O3.3. Training programs on energy efficient appliances are developed	A.3.3.1. Build institutional capacity on program design, institutional mechanism, consumer awareness and M&V related to standards and labelling program
		A.3.3.2. Design and conduct training programs for importers and vendors of building appliances on the relevance of energy performance labelling of appliances
		A.3.3.3. Design and conduct training program for appliance life cycle cost procurement procedures
C4. Monitoring and assessment systems are put in place to measure effectiveness	O4.1. A monitoring and assessment system is in place to measure effectiveness of	A4.1.1. Analyze the energy use in different types of buildings (residential, commercial, public, hotels/guesthouses, mixed-purpose) A4.1.2. Energy use monitoring system is
of the projectinterventions and	project implementation	developed for buildings and tested in public building(s)
facilitate widespread replication.		A4.1.3: Develop database of energy use in existing buildings and appliances and analyze the annual trend to assess the impact of project interventions
		A4.1.4: Based on the results, guidelines are prepared to promote energy use monitoring in

Components/Outcomes	Outputs	Activities
		buildings and receive data for updating database on energy use in buildings
		A4.1.5: Track the impact of project interventions on the carbon emissions from the building sector
	O4.2. Awareness and educational programs are developed to sensitize different	A.4.2.1. Programs developed for awareness raising of the different building sector stakeholders and dissemination through various public channels
	stakeholders regarding building energy efficiency and the disseminate good	A4.2.2: Extracurricular activities and awareness programs developed for youth to inculcate behavioural and lifestyle changes to achieve low carbon development
	practices for widespread replication	A4.2.3: Document experience and good practices from the project for the benefit of other small island developing states

3.3 STAKEHOLDERS

- 61. The main partners involved are the Ministry of National Planning, Housing, and Infrastructure (MNPHI), Ministry of Economic Development (MED), National Ozone Unit, Maldives Customs Services, Male City Council, Housing Development Cooperation (HDC), State Electric Company, Maldives National University (MNU), Maldives Islamic Bank (MIB), Utility Regulatory Authority, State Trading Organization (STO), Association of Energy Engineers, Architect Association of Maldives, Association of Civil Engineers, Scout Association of Maldives and Maldives Girl Guide Association.
- 62. The stakeholder analysis along with their roles/responsibilities is provided in table-3 below.

Table 2: Project Stakeholders

Stakeholder	Acronym	Role/Responsibility
Government		
Ministry of Environment, Climate Change and Technology	MECCT	Executing partner Host the Project Management Unit Adopt energy conservation and efficiency measures to reduce consumption
Ministry of National Planning, Housing, and Infrastructure	MoNPHI	 Developed Energy Efficiency Guidelines for buildings. Introduce energy efficiency into practice from the design stage. Incorporation of the measures identified in the guidelines into the building construction regulation.
Ministry of Economic Development	MED	 Played key role in the development of the labelling program. Ensured fair trade in Maldives as the country is a 100% import-based country for electrical appliances.
National Ozone Unit	NOU	- Assist in the safe disposal of hydrochlorofluorocarbon (HCFCs) in refrigeration and air conditioning systems
Maldives Custom Services	MCS	 MCS is the gatekeeper to the border of the Maldives. Monitor import of appliances for effective implementation of Hakathari Labelling Program.
Malé City Council	-	Issue the building construction permits.Facilitated access to data for the local conditions assessment.
Commercial Sector		

Stakeholder	Acronym	Role/Responsibility
Buildings & Tourist	-	- Adopt energy efficiency guidelines and environment friendly
Resorts		energy production.
Housing Development Corporation	HDC	 Master developer for three pivotal islands of the Maldives: Hulhumalé, Thilafushi & Gulhifalhu. Developed BREEAM rating system for Maldives. Attained the BREEAM certification "very good" for their upcoming Green Office Building.
State Trading Organization	ST0	- Sale of Hakathari Labelled appliance through STO Stores across the country.
Utilities		the country.
State Electric Company	STELC0	- Undertake demand side management as a new business opportunity, including energy auditing, monitoring energy use in the building sector, and implementing energy efficiency projects
Utility Regulatory Authority	URA	 Responsible for regulating the energy sector. Contributed to the development of Hakathari labelling program and energy efficiency guideline for buildings.
Civil Society (NGOs)		T
Architect Association of Maldives	AAM	- Design and construction of buildings according to EE Guidelines
Association of Civil Engineers	ACE	- Design and construction of buildings according to EE Guidelines
Scout Association of Maldives	SAM	 Affiliated with schools. Raise awareness at school level about energy efficiency, energy conservation and climate change. Encourage students through awarding energy efficiency badge.
Maldives Girl Guide Association	MGGA	 Affiliated with schools. Raise awareness at school level about energy efficiency, energy conservation and climate change. Encourage students through awarding energy efficiency badge.
Educational Institutions		
The Maldivian National University	MNU	 Design and incorporate energy efficiency and conservation aspects into their courses at graduation and post-graduation level. Developed energy auditor's module (stand-alone course as elective).
Financial Institutions		
Maldives Islamic Bank	MIB	 Allocated up to USD 1,000,500.0 from its own funds for the financing scheme to purchase Hakathari labelled appliances. Initiated a special portfolio to provide low-cost financing to consumers who wish to purchase Hakathari labelled appliances.

3.4 PROJECT IMPLEMENTATION STRUCTURE AND PARTNERS

63. The project implementation structure and the partners are provided in figure 2.

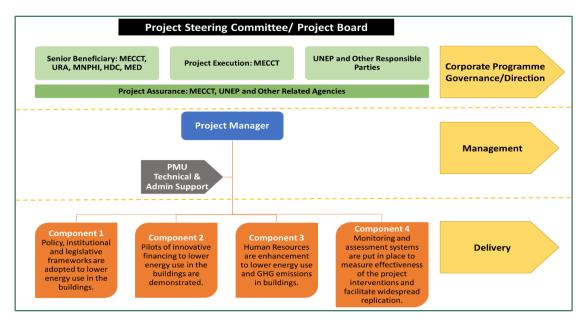


Figure 2: Project Organogram ad Key Partners

3.5 CHANGES IN DESIGN DURING IMPLEMENTATION

- 64. Following the Mid-Term Review, the eight components of the project were re-structured into four components. Originally, the components were not very well aligned to address the key drivers for a change: Policy and regulations to promote energy efficiency building design and appliances used in buildings; financial incentives and innovative financing mechanisms to encourage consumers and construction firms to improve building energy efficiency improvements; Capacity building among various stakeholders to ensure availability of trained human resources to effectively implement the energy efficient improvements; and awareness building among consumers to create demand for energy efficient buildings. The originally designed 8 components covered these elements, but they were more oriented towards actions to address actors in the system for a change. The number of components and the overlap of activities across components distracted from the key drivers of change and thus the possibility of losing on synergies of actions and clarity in understanding the path to Change. The restructuring helped the project in effective implementation of activities.
- 65. The final 4 components of the project are presented as under:
 - I. Component 1: Policy, institutional and legislative frameworks are adopted to lower energy use in the buildings.
 - **Description:** Energy efficiency requirements are incorporated in the Maldives' building code and Energy labelling program developed and implementation initiated.
 - II. Component 2: Pilots of innovative financing to lower energy use in the buildings are demonstrated.
 - **Description:** Innovative financing is demonstrated for energy efficient design of buildings, energy efficiency retrofits in buildings, high-efficiency appliances.

III. Component 3: Human Resources are enhancement to lower energy use and GHG emissions in buildings.

Description: Educational and training programs focused on climatically suited low-energy building design are developed. Training programs focused on energy efficiency retrofits of buildings and on energy efficient appliances are developed.

IV. Component 4: Monitoring and assessment systems are put in place to measure effectiveness of the project interventions and facilitate widespread replication.

Description: monitoring and assessment system is in place to measure effectiveness of project implementation. Awareness and educational programs are developed to sensitize different stakeholders regarding building energy efficiency and the disseminate good practices for widespread replication.

3.6 PROJECT FINANCING

66. The approved budget provided by GEF is USD 3,885,000 and the total cost allocation of USD 38,558,835 including PPG GEF cost of USD 68,000 and co-financing amounts of USD 150,000 (PPG) and USD 34,455,835 (MSP/FSP). The total reported expenditure until June 2022 is USD 3,760,915.64. The total co-financing amount realised is 38,360,869 (final report dated 30th August 2022).

4 THEORY OF CHANGE AT REVIEW

- 67. The proposed Theory of Change (ToC) at Review follows very closely the element of the Project Results Framework, including the Outputs, Outcomes, intermediate state (objectives), Impact (Goal) and the activities as provided in the project document.
- 68. The project design, logic for interventions, the Project Results Framework, and the Theory of Change (ToC) constructed at the Mid-Term Review stage were carefully studied to establish the ToC at the Terminal Review stage. The results framework covers the three broad realms of intervention: generation and sharing of knowledge and information, development of institutional capacities, and testing of implementation strategies for behavior change. With the restructured outcomes and outputs, it was convenient to get a consistent and clear conceptual understanding of the project's possible impact pathways. i.e., the pathway from outcome towards the ultimate impacts. The project overall design was complex and was trying to address and achieve multiple outcomes during the short span of time. The mid-term review helped in developing a ToC after reducing the outcomes from 8 to 4.
- 69. However, the Evaluator perceived the need to reconstruct the ToC at Terminal Review due to the following reasons:
 - Project outcomes stated in the ToC provided in MTR were reduced from 5 to 4 and reworded
 to reflect the direct and indirect consequences of project activities, especially on the project
 beneficiaries, since they were the target of the interventions. This is consistent with project
 results formulation expectations of UNEP.
 - The original assumptions and drivers in the ToC at design needed to be re-modified to be consistent with the UNEP definition of assumptions and drivers to result in a ToC.
- 70. The reconstructed ToC in Figure 2 identifies assumptions needed to translate outputs into outcomes and presents the drivers to project intermediate states and impacts.
- 71. The project objective is presented as "mainstreaming energy efficiency measures into policies and standards for buildings to leverage investments in efficient and low carbon technologies and management practices thereby reducing GHG emissions from the sector". The mainstreaming of energy efficiency measures into policies and standards for buildings requires a long-term approach to effectively leverage investments in efficient and low carbon technologies and management practices. The outputs and outcomes of the project cannot achieve the reduction in GHG emissions immediately after the completion of project implementation. The long-term goal of LCEI project is set as "transforming the market in the Maldives towards energy efficient low-carbon buildings and built environment thereby reducing GHG emissions in the country". It is clearly implying that interventions will be necessary after the completion of the project to achieve market transformation in the long run by sustaining, replicating and/or upscaling project initiatives.
- 72. The realistic assessment of the implementation indicators (e.g., 90% of buildings covered by monitoring activities, 95% of new buildings in Male' include energy efficiency components, and 95% refrigerators, air conditioners and freezers have energy usage labels at the point of sale at the end of the project) shows that not even 50% of the targets were achieved at the time of completion of project duration. Component 1 includes 'Adoption of policy, institutional and legislative framework to lower energy use in the building sector'. Activities listed were carried out to achieve the outputs under this Component (outcome) have major focus on development

and adoption of policies as they include Identification of measures to lower energy consumption in buildings, guidelines for energy efficiency improvement in new and existing buildings, incorporate energy efficiency requirements in building code, initiate voluntary labelling scheme, update government procurement policy to incorporate use of life-cycle costing.

- 73. Based on the documentation and process described above, four causal pathways associated with each outcome could be identified:
 - Outcome 1: Mainly focus on incorporation of energy efficiency requirements in Maldives' building code and development of energy labelling program and finally to initiate the implementation of energy efficiency in buildings and appliances. The outputs facilitated the enactment of Construction Act (4/2017) on 23rd April 2017 which has paved the way to create an enabling environment for promoting energy efficiency in the building sector. In addition to this, Maldives Energy Act (18/2021) was ratified on 11th October 2021. These two Acts established a legal framework of standards and laws for the provision of energy in the Maldives, dealing with both the production and consumption of energy. The Hakathari Appliance labelling program was launched on 16th September 2021 as a voluntary program. The pathway shows the results of activities that can be verified, rather than as completed activities.
 - Outcome 2: Focuses on pilot demonstrations to demonstrate and promote innovative financing for energy efficient design of buildings, energy efficiency retrofits in buildings, high-efficiency appliances. Under this component, a financial strategy was developed by identifying building typologies and energy efficiency practices for new constructions and retrofits, and the financing needs. The Maldives Islamic Bank (MIB) created a dedicated portfolio to promote Hakathari labelling program as per the target set to show a dedicated portfolio at least one financial institution and made available the funds for financing. The building owners can use the funds to purchase energy efficiency equipment for the buildings.
 - Outcome 3: Targets the education and training of human resources to support the development of climatically suited low-energy building designs. Also, to develop training programs focused on energy efficiency retrofits of buildings and on energy efficient appliances. A range of capacity building activities were conducted for key stakeholders and a number of representatives from developers, architects, engineers, government officials, NGO's have been trained. The energy audit module which was designed to be a stand-alone course for professionals in the field has been developed. Maldives National University (MNU) has obtained internal approval for this course. In addition, a Green Building Concepts and EE module course was also developed. The pathway shows the results of activities that can be verified, rather than as completed activities.
 - Outcome 4: For monitoring and assessment to measure effectiveness of project implementation. Development of awareness and educational programs to sensitize different stakeholders regarding building energy efficiency and the disseminate good practices for widespread replication. Under this component, the energy use monitoring system was developed for buildings and tested on the MECCT building to calculate the EPI based on the floor area and energy usage. The Energy Efficiency Badge was developed for Maldives Girl Guide Association (MGGA) and Scout Association of Maldives (SAM). Both associations have incorporated the badge syllabus into their program and have started to train additional leaders to assist the members to attain the badge.

- 74. The four outcomes are connected to a single intermediary state Mainstream energy efficiency measures into policies and standards for buildings to leverage investments in efficient and lowcarbon technologies and management practices thereby reducing GHG emissions from the sector.
- 75. However, the four outcomes are intimately interconnected. Outcomes 2 and 3 are important in ensuring the achievement of outcome 1. Outcomes 3 and 4 represent key elements of the "strengthened capacity" portrayed in outcome one. This is reflected in the ToC diagram in Figure 2 below by the arrows that connect the outputs under outcomes 1 to 4.
- 76. There are two outputs under outcome-1 to achieve the objective and goal.
 - Output 1.1: Energy efficiency requirements are incorporated in the Maldives' building code.
 - Output 1.2: Energy labelling program developed, and implementation initiated.
- 77. In this pathway, at review, one driver and one assumption have been identified.
 - Impact Driver 1: Ministry of Environment, Climate Change and Technology continues to support and periodically revise the energy codes, ratings, and standards, as needed.
 - **Assumption 1:** Government implements the policies and legislative frameworks to lower energy use in the buildings.
- 78. There are four outputs under outcome-2 to achieve the objective and goal.
 - Output 2.1: Innovative financing is demonstrated for energy efficient design of buildings.
 - Output 2.2: Innovative financing is demonstrated for energy efficiency retrofits in buildings.
 - Output 2.3: Innovative financing is demonstrated for high efficiency appliances.
 - Output 2.4: Scaling up financing for energy efficiency appliances and buildings.
- 79. In this pathway, at review, one driver and one assumption have been identified.
 - Impact Driver 1: Ministry of Environment, Climate Change and Technology facilitates the mobilization of financial resources to scale up the pilot initiatives to more buildings and appliances.
 - **Assumption** 1: Government partners collaborating in the pilot innovative financing initiatives are willing to scale up.
- 80. There are three outputs under outcome-3 to achieve the objective and goal.
 - **Output 3.1:** Educational and training programs focused on climatically suited low-energy building design are developed.
 - **Output 3.2:** Training programs focused on energy efficiency retrofits of buildings are developed.
 - Output 3.3: Training programs on energy efficient appliances are developed.
- 81. In this pathway, at review, one driver and one assumption have been identified.
 - *Impact Driver* 1: Government allocates the budget for educational and training programs focused on low-energy buildings.
 - **Assumption 1:** Government incorporates building energy efficiency and conservation aspects in educational programs of various educational and research institutions.

- 82. There are two outputs under outcome-4 to achieve the objective and goal.
 - Output 4.1: A monitoring and assessment system is in place to measure effectiveness of project implementation.
 - Output 4.2: Awareness and educational programs are developed to sensitize different stakeholders regarding building energy efficiency and the disseminate good practices for widespread replication.
- 83. In this pathway, at review, one driver and one assumption have been identified.
 - Impact Driver 1: Ministry of Environment, Climate Change and Technology establishes a mechanism to monitor and assess the impact of government policy and initiatives on energy use and carbon emissions.
 - Assumption 1: Media and NGO partners continue to develop new tools to sensitize the general public and youth regarding the positive impacts of low-energy buildings and energy efficient appliances.
- 84. Keeping in mind that the focus of GEF interventions, and Theory of Change (ToC) presented in MTR, the reconstructed ToC at Terminal Review (TR) is provided in Figure-2 below.

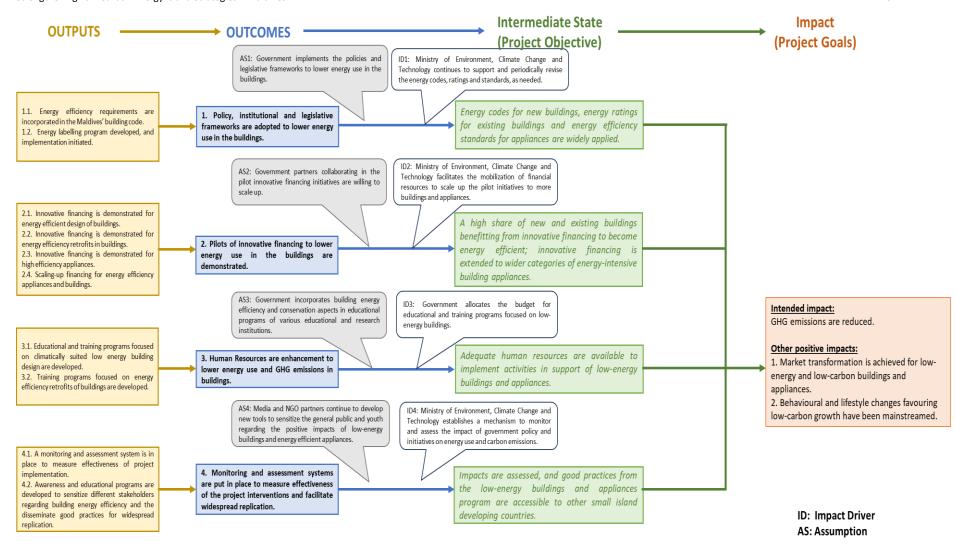


Figure 3: Reconstructed TOC at the Terminal Review

5 REVIEW FINDINGS

- 85. This section is organized according to the review criteria outlined in the TOR and reflected in the review ratings table. The Review Findings section provides a summative analysis of all triangulated data relevant to the parameters of the criteria. The review criteria include the following:
 - A. Strategic Relevance
 - B. Quality of Project Design
 - C. Nature of External Context
 - D. Effectiveness
 - E. Financial Management
 - F. Efficiency
 - G. Monitoring and Reporting
 - H. Sustainability
 - I. Factors Affecting Project Performance and Cross-Cutting Issues

5.1 STRATEGIC RELEVANCE

86. The criteria included the assessment of the extent to which the activity is suited to the priorities and policies of the target group, recipient, and donor; and include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups is included. This criterion comprises four elements as outlined below.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.1.1 Rating for Alignment to the UNEP Medium Term Strategy⁸ (MTS), Program of Work (POW) and Strategic Priorities

- 87. At the time of project design, the UNEP's Medium-Term Strategy (MTS) for 2014-2017 was in place and at the time of implementation, the MTS for 2018-21 was in place. The project is aligned to MTS 2014-17. The key goal of UNEP MTS for 2014–2017 was to 'catalyse a transition towards low carbon, resource efficient, and equitable development'. The project is well aligned with UNEP's sub-program on resource efficiency, and more specifically, sustainable consumption and production (SCP). The three expected accomplishments of this sub-program 6 are:
 - a. Creation of an enabling environment for promoting resource efficiency.
 - b. Enhancing the ability of government, businesses, and other stakeholders to adopt SCP practices; and
 - c. Enhancing the ability of countries, business, civil society, and individual consumers to make informed choices for sustainable consumption and lifestyles.

⁸ UNEP's Medium-Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents

88. The project is aligned with UNEP's 2014-2015 Program of Work (POW). In the project identification, resource efficiency – sustainable consumption and production (SCP) is considered as UNEP's priority. The contribution of this project to the UNEP's POW should be the Expected Accomplishment B of the sub-program on Climate Change: "Energy efficiency is improved, and the use of renewable energy is increased in partner countries to help reduce GHG emissions and other pollutants as part of their low emission development pathways". The project contributes to both the sub-programs: "Climate Change" and "Resource Efficiency". The fact that the project is targeting low-energy buildings is proof that the aim is to improve energy efficiency and reduce GHG emissions.

Rating: The TR rating for this criterion is **Highly Satisfactory**.

5.1.2 Rating for Alignment to UNEP Strategic Priorities

- 89. The project is supported by GEF Trust Fund under the strategic objective 2 of the "climate change mitigation", which aims at "promoting market transformation for energy efficiency in industry and the building sector". The planned policies of introducing building codes as energy labelling accompanied by the measures to support financing of energy efficient technologies and appliances are meant to accelerate market transformation compared to the business-as-usual scenario. Lowering energy use in the building sector will contribute to less dependence on diesel for the power plant, hence lower GHG emissions.
- 90. The project also supports UNEP's strategic priorities: the Bali Strategic Plan (BSP) for technology support, capacity building and South-South cooperation. The project is intended to assist the government in promoting, facilitating, and financing environmentally sound technologies. The results achieved in this project would serve to encourage and support other SIDS as well as many small island communities in larger archipelagic countries in replicating low-carbon energy policies and strategies.
- 91. The various co-financing partners further demonstrated their commitment based on the relevance of the project to their climate action. The MECCT worked with other Ministries, departments, regulatory authorities, utilities, businesses, multilateral institutions, and civil society groups to develop practical solutions that improve people's lives and ensure sustainability of nature.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.1.3 Rating for Relevance to Global, Regional, Sub-regional and National Environmental Priorities

- 92. The Maldives is seriously vulnerable to adverse impacts of climate change and the first to be forced to adapt. Maldives is already experiencing disruptive changes consistent with many of the anticipated consequences of global climate change, including extensive coastal erosion, coral bleaching, and higher sea levels. While much attention has focused on global warming causing gradual, long-term changes in average conditions, the most immediate and more significant impacts are likely to arise from changes in extreme events and climatic variability.
- 93. The seriousness of this threaten relates to the very survival of the Maldives. The country has a track record of supporting global environmental concerns. It was one of the first countries to sign the Kyoto Protocol and ratify it in 1998. The country submitted the First National Communication in 2001, with a supplementary national carbon audit to IPCC standard in 2009. Pursuant to the Copenhagen Accords, Maldives made a voluntary and unconditional submission

to the UNFCCC for achieving "carbon neutrality as a country by 2020" while indicating its intention to seek "technical, financial and capacity building support for implementation". Though Maldives' absolute GHG emissions are low and achieving carbon neutrality will have negligible global environmental benefits, such an initiative from a SIDS was expected to motivate many other SIDS and many small island communities in larger archipelagic countries in the Asia-Pacific region.

- 94. Maldives submitted its first Nationally Determined Contribution in 2015. As per decision 1/CP.21, Maldives submitted the updated NDC in December 2020. Maldives made efforts as much as possible to enhance the NDC to follow the ICTU guidance which was adopted as a part of the Katowice Climate Package in December 2018 in the spirit of streamlining and harmonizing the NDCs synthesis process.
- 95. The carbon neutrality goal has been mentioned in several government policy and action plan documents (e.g., Maldives National Strategy for Sustainable Development 2009, and Third National Environment Action Plan 2009-2013). This project is aligned with the third statement of the policy in the Maldives National Energy Policy and Strategy, 2010. Maldives has set 2030 as its Net Zero Target. The country is on track to reduce a quarter of its emissions by 2030 and the government believes that it has a responsibility to take a "more transformational" economic and environmental path.
- 96. Per the above, the project is highly relevant for global, regional, and national needs and priorities.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.1.4 Rating for Complementarity with Existing Interventions/Coherence9

- 97. The project is complementary to existing programs implemented by other Ministries and departments. The project showed its coherence with existing interventions as several interviewees mentioned the usefulness of project interventions.
- 98. The project is complimentary to several GEF interventions, including the approved national and regional projects, supported by GEF Trust Fund and LDC Fund. The project has also taken into consideration several regional projects that are contributing to the goal of carbon neutrality by 2020. These projects are mainly focused on renewable energy, with some of them having components addressing energy efficiency in a limited way. The ProDoc recognizes these efforts and pledges to consider the important lessons from these projects to enable adaptive management. However, the project has not made any efforts to build upon the results of these projects during its execution.
- 99. The project briefly interacted with 3 regional climate change projects that are being implemented by UNEP in the Asia-Pacific region to receive expert advice and technical support. These regional projects are addressing issues that are very relevant to the project, such as Nationally Appropriate Mitigation Action (NAMA) for the building sector, end-use finance for access to clean energy technology, and Climate Technology Network and Finance Centre. Also, the UNEP IA team connected the PMU of LCEI Project with experts such as those from U4E through email and calls. The PMU has confirmed the interaction with U4E. However, the PIRs and HYRs have missed mentioning this. **Rating**: The TR rating for this criterion is **Satisfactory**.

⁹ This sub-category is consistent with the new criterion of 'Coherence' introduced by the OECD-DAC in 2019.

5.2 **QUALITY OF PROJECT DESIGN**

- 100. Starting with a general presentation of the Maldives and the country's resolve to achieve carbon neutrality and Net Zero Status, the project document highlights the high fossil fuel use to meet the energy demand of the building sector, mainly due to the under-investment in building energy efficiency. It also highlights the fact that while there are considerable efforts on the energy supply side to shift from fossil fuels to renewable energies, the demand side energy management efforts have been rather low. It has carried out a detailed stakeholder analysis and through stakeholder consultations, the key barriers to building energy efficiency have been identified and suitable strategies proposed to overcome these barriers.
- 101. The strategic relevance of the project is briefly covered in the project document. Though there is not much description of how the project is strategically relevant to UNEP's MTS and GEF's strategic priorities, it is guite clear that the project is well aligned with UNEP and GEF strategies to lower GHG emission through mitigation measures (energy efficiency and management). It also highlights the fact that the lessons from this project will be relevant to other small island developing countries (SIDCs).
- 102. The Project Results Framework (PRF) is developed and later revised to address the identified barriers and targets that have been set to fulfil the outcomes. The impact drivers have been identified and the assumptions are described for each key causal pathway. This was a GEF-5 project developed at a time when PRF templates were not standardized. But before commissioning the project, a PRF was developed, and the outputs and activities were presented. While the work plan of the project was clear, there was less clarity on the activities to be undertaken to achieve the outputs. This was made more focused after incorporating the recommendations of mid-term review. The subsequent progress reports submitted after the mid-term review confirm the improvement in reporting. No Theory of Change (ToC) was presented in the project document as it was not a requirement for GEF-5 documents. The midterm review provided an opportunity to discuss the key issues with the PMU and UNEP before working on the construction of ToC for the project based on whether there is a consensus on consolidating the outcomes and better defining the activities needed to be conducted to obtain the outputs that help to move towards the desired outcomes.
- 103. The stakeholder mapping and analysis includes an assessment of the roles and responsibilities of external partners, including civil society, educational institutions, and financial institutions. However, the list appears to be very limited and could have involved more players. The project document also mentions conducting stakeholders' consultation workshops during the preparation of the proposal.
- 104. The mid-term review report highlighted that no in-depth stakeholder analysis was conducted to identify stakeholders who are likely to be affected or who could affect the project's results. It is stated that major stakeholders that impact the energy sector of the Maldives were identified and analyzed. As the project is designed to benefit the building sector, all key players in the building sector should also have been considered and consulted, including Maldives Association of Construction Industry (MACI), Architects Association Maldives (AAM), Association of Civil Engineers, Housing Development Cooperation, or Maldives Association of Tourism Industry (MATI). Based on the mid-term review recommendations, the project reached out to the relevant stakeholders in Maldives and mobilized their support. The annual reports confirm the changed and improved approach.

- 105. The project document has considered the inclusion of a full-time person within the PMU to ensure communication and knowledge management. It has also considered the strategy to be adopted to effectively carry out public awareness and communication using different media. However, there is no detailed analysis of the existing channels and networks used by the key stakeholders.
- 106. The project document describes the ongoing projects and states that a strategy will be adopted to coordinate with the different stakeholders of these projects. It includes budgets/financial planning to carry out the project activities. Co-financing pledged by the MECCT are through parallel projects which reinforce in the areas of technical support in reviewing terms of references, project outputs; staff time for procurement, communication, IT services and administrative activities; organizing and participation in meetings and workshops; knowledge sharing, training, and associated travels; use of premises and resources; sharing of office resources, printing, communications, media reports and news coverage. Additionally, the project partner HDC is developing Auto Centre with the BREEAM good rating. Financing program for energy efficiency appliances has been established at Maldives Islamic Bank (MIB) with cofinancing by the bank.
- 107. The project has identified the potential risks and it also has a section explaining how the project intends to mitigate the possible negative environmental, economic, and social impacts. The project document is designed to provide a foundation for sustainable energy efficiency actions in the building sector of Maldives.
- 108. The project document includes a well-structured decision-making flowchart and an organizational chart for the smooth execution of the project. The roles and responsibilities of UNEP and the PMU under the Ministry of Environment, Climate change and Technology (MECCT) are outlined. Budget has been allocated for monitoring the project's progress. The organizational flowchart and the structure of the PMU are provided in Figure 3 and 4 below.

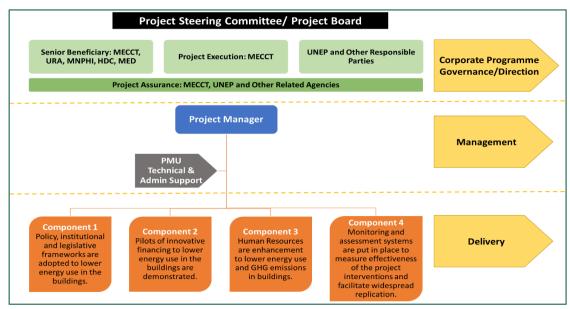


Figure 4: Project Organizational Structure

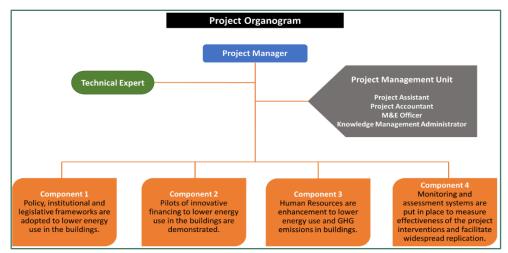


Figure 5: Institutional Structure of the Project

Rating: The TR rating for this criterion is **Satisfactory**.

5.3 NATURE OF THE EXTERNAL CONTEXT

- 109. Given that the project environment is an open system and is affected by stimuli from outside the control of the project, including natural, social, and macro-economic variables among others, this criterion assessed the extent to which such factors affected the implementation of the LCEI project, negatively or positively.
- 110. The project implementation was met with the on-set of the COVID-19 pandemic. The major impact of this on the LCEI initiative was its limitation on international travel, organizing capacitybuilding workshops and training and on face-to-face interactions. Due to this, conferences, webinars, and training workshops were carried out virtually during the year 2020 and 2021.
- 111. The project document considered the change of government as a high institutional risk that may jeopardize the expected outcomes, it emphasizes the high level of international commitment of the country to carbon neutrality. The change of government happened mid-way to the project and after the change, the name of the ministry was also changed from Ministry of Environment and Energy (MEE) to the Ministry of Environment, Climate Change and Technology (MECCT). Maldives being a small country and has limited resources for meeting the emission reduction targets, the new regime modified the transformation pace and the goals for achieving carbon neutrality.

Rating: The TR rating for this criterion is *Moderately Favorable*.

5.4 **EFFECTIVENESS**

112. The effectiveness of the project outcomes, outputs, activities and monitoring of results and impacts are discussed in the sections below.

5.4.1 Rating for Availability of Outputs

113. All activities were concluded, and all outputs were delivered. Because the project was granted three no-cost extensions, most outputs were delivered outside the timeframe foreseen in the ProDoc. However, as can be found in the minutes of the meetings of the Steering Committee, this did not pose a major threat to the effectiveness of the project outputs.

114. The outputs achieved for each of the components were reviewed through the activities undertaken to examine the contents and evaluate their relevance in the context of what the project was expected to achieve. Table 4 provides an overall assessment of project outputs, reviewing the project's success in producing the programmed outputs and achieving milestones as per the ProDoc. The revisions made after the completion of mid-term review are also shown in table 4. The table also points out where the project outputs are confusing or not in line with, they are expected to deliver. UNEP and LCEI Project Management made available the reports and other documents for TR. All these documents were reviewed to assess their quality and quantity, and comments are made on their usefulness and the timeliness of their delivery.

Table 3: Availability of Outputs

Output	Available	Target	Comments
1.1: Energy efficiency requirements are incorporated in	Yes	Identified measures to lower energy consumption in	Completed in 2019-20
the Maldives' building code.		buildings through EE designs & retrofitting of existing buildings.	
		Guidelines for cost-effective EE improvement in new & existing buildings.	Completed in 2020-21
		Workshop for building sector stakeholders to validate guidelines.	Completed in December 2021
		Using the guidelines, process initiated for incorporating energy efficiency requirements in Maldives' building code.	Completed in June 2022
		Development and demonstration of certification scheme for Hulhumale' in collaboration with Housing Development Cooperation (HDC).	Completed in 2019-20
1.2 Energy labelling program developed, and implementation initiated	Yes	Market assessment and consumer awareness study to develop baseline for appliances energy efficiency and understand consumer behavior patterns.	Completed in 2018-19
		Process and procedures for implementing the labelling scheme integrated into respective authorities' mandate.	Completed in 2018-19 Completed in September 2021
		Initiate voluntary labelling scheme implementation.	Completed in March 2022

		Updated government procurement policy to incorporate use of life cycle costing to promote procurement of EE appliances.	
2.1 Innovative financing is demonstrated for energy efficient design of buildings	Yes	Assessment of the existing environment for financing new buildings.	Completed in 2018-19
		Innovative financing schemes to incentivize the construction of new EE buildings.	Completed in June 2021
		Technical assistance to design energy efficient buildings and attain building design certification.	Completed in June 2021
		Financial support to implement EE measures in identified buildings based on identified innovative financing options.	Completed in June 2022
2.2 Innovative financing is demonstrated for energy efficiency retrofits in buildings.		Assessment of existing financial environment for financing building retrofits.	Completed in 2018-19
		Selected public buildings for investment-grade audits to identify cost-effective energy efficiency improvements.	Completed in 2018-19
		Innovative financing schemes to incentivize retrofits in buildings.	Completed in June 2021
		Implementation of cost- effective efficiency measures through innovative financing schemes and validate the savings accrued from the retrofits.	This could not be completed as no financial entity came onboard for financing the retrofits.
2.3 Innovative financing is demonstrated for high-efficiency appliances.	Yes	Assessment of existing environment for financing appliances used in buildings.	Completed in 2018-19
		Identification of key partners for design of innovative funding mechanism to support EE appliance purchases.	Completed in May 2022 with the signing of MOU with Maldives Islamic Bank.
		Pilot implementation for EE appliances.	Completed in June 2022

O.A. Casling up financing for	Vaa	Design of a few financing of	O
2.4 Scaling up financing for energy efficiency appliances and	Yes	Design of a for financing of high efficiency appliances and	Completed in 2019-20
buildings.		building energy retrofits.	
3.1 Educational and training	Yes	Academic programs on low-	Completed in 2019-20. The
programs focused on climatically	. 00	energy building design in	undergraduate and post
suited low-energy building design		collaboration with educational	graduate programs
are developed.		establishments.	developed by the Maldives
			National University.
		Training programs on low-	Completed in December
		energy building design for	2021. Approximately 250+
		developers, architects, engineers, government	professional trained (as reported).
		officials in collaboration with	reported).
		Ministry of Housing and	
		Infrastructure and MEA.	
		Training programs on	Completed in November
		financing low-energy buildings	2021. As per the report, 21
		for banks and financial institutions that provide long-	professionals were trained.
		term building loans.	
3.2 Training programs focused on	Yes	Training programs on	Completed in 2019-20
energy efficiency retrofits of		conducting investment-grade	
buildings are developed		energy audits of buildings.	
		Training programs for	Completed in December
		buildings and facilities	2021. Facility managers
		managers on adopting energy	from 12 Government
		management system for buildings.	agencies were trained.
3.3 Training programs on energy	Yes	Capacity building on program	Completed in December
efficient appliances are		design, institutional	2021.
developed		mechanism, consumer	Training of Trainers on
		awareness and M&V related to	"Hakathari" Label was
		standards and labelling program.	conducted. 95 Stakeholders participated in the training.
		program.	participated in the training.
		Training for importers and	Completed in December
		vendors of building appliances on the relevance of energy	2021. 121 stakeholders from Maldives Customs,
		performance labelling of	Importers, Retailers &
		appliances.	Government officials
			trained.
		Training on appliance life	
		cycle cost procurement	Completed in December
		procedures.	2021. 29 procurement officers from 14
			government agencies were
			trained on public
			procurement.
4.1 A monitoring and assessment	Yes	Monitoring systems	Completed in 2019-20
system is in place to measure		developed for buildings and	
effectiveness of project		tested in public buildings.	
implementation.			Completed in 2019-20
		<u> </u>	Completed in 2019-20

		Database of energy use in existing buildings and appliances and analyze the annual trend to assess the impact of project interventions.	Completed in March 2022
		Guidelines to promote energy use monitoring in buildings and receive data for updating database on energy use in buildings.	Completed in June 2022
		Track the impact of project interventions on the carbon emissions from the building sector.	
4.2 Awareness and educational programs are developed to sensitize different stakeholders regarding building energy efficiency and the disseminate good practices for widespread	Yes	Programs developed for awareness raising of the different building sector stakeholders and dissemination through various public channels.	Completed in June 2022
replication.		Extracurricular activities and awareness programs developed for youth to inculcate behavioral and lifestyle changes to achieve low carbon development.	Completed in June 2019 Completed in June 2022.
		Document experience and good practices from the project for the benefit of other small island developing states.	Completed in Julie 2022.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.4.2 Rating for Achievement of Project Outcomes

Project Outcomes	Baseline Level	End-of-Project Targets	Comments
Outcome 1: Policy, institutional and legislative frameworks are adopted to lower energy use in buildings	No EE related legislation existing, and no guidelines and standards are in use.	Government endorses the use of energy efficiency building guideline for government buildings.	Maldives developed EE Guideline for Buildings in early 2021. The guidelines are approved by the Government and yet to be enforced. HDC has developed BREEAM rating system for Maldives. The implementation is an issue due to the lack of trained
	There is no EE certification for		professionals for commercial buildings.

	buildings in		The Ministry of National Planning Housing
	Maldives.		and Infrastructure (MNPHI) has endorsed the EE building guideline in October 2021. The final approval for implementation is still awaited.
			The availability of PMC to ensure completion of key activities was essential. With COVID and multiple extensions and with the lack of possible PMC contribution by the Govt, things could not be completed with the desired pace.
	Even if EE appliances can be found in being sold in Male' no related activities have been undertaken so far.	At least 15 models of appliances are registered in the labelling program.	At the time of TR, 6 models of air conditioners with ratings of 4 and 5 stars are registered under the energy efficiency labelling program. The models are on sale in STO and RANFAUN Stores.
			The products currently under the labelling program are zero duty products with no financial incentives for the importers. The MECCT previously discussed this issue with Parliament and given the assurance about incentivizing the EE labeling program during the next revision on import duties. Considering that the project is going through the initial gestation period to assess and absorb the market impacts, the changes to deliver the outcomes/outputs are being documented and would be used for making necessary changes to continue transforming the EE market in Maldives. Also, the labelling program is voluntary. The Energy Efficiency Section, MECCT & Maldives Customs are providing the support to importers. To date 2 of the importers are on board. There is a need to
			recruit more number of importers to transform the EE appliance market in Maldives.
	The Ministry of Finance endorses Procurement policy for purchase of EE labelled appliances	All government Ministries follow the procurement guideline on labelled	Procurement policy board under the Ministry of Finance (MoF) has endorsed inclusion of life-cost analysis and EE requirements in Procurement Policy.
	and life cycle costing analysis in government procurement.	appliances and life cycle costing analysis.	The tools and guidelines are published by MECCT.
Outcome 2: Pilots of innovative financing to lower	EE actions are not defined/recognized by financing	At least one financial institution can	Maldives Islamic Bank (MIB) is providing finance on labelled appliances.
energy use in	institutions.	show a dedicated portfolio or	The financing scheme introduced by MIB with technical support from LCEI project is

buildings are demonstrated.	Building loans do not provide energy efficiency guidance, nor take into consideration the improved financial results available from improved energy performance.	identify loans that have applied the energy efficiency guidelines or labelling program.	very useful. LCEI Project provided MVR 12,288,000 for the implementation of scheme. MIB is using the money as a guarantee to run the scheme and they have committed MVR 15,360,000 from their own resources.
	Funds are not available for EE actions creating a barrier to investment.	Building owners are using financing mechanisms to fund EE measures in buildings. 1 public building undertake energy efficiency approaches, and these are accessible to the public, with information provided (e.g., signs) on the EE actions taken by the end of the project.	BREEAM 'Very Good Rating' interim certification achieved for the proposed HDC Green building to be constructed in Hulhumale'. The Green Office building is the first building in Maldives to achieve one of the world-leading sustainability ratings.
Outcome 3: Human resources are enhanced to lower energy use and GHG emissions in buildings		Initiate bachelor's level course and Maldives Qualification Authority (MQA) endorsement of the master's level course.	Bachelors and master's level courses have been developed by MNU with support from the LCEI project. MNU to acquire the necessary expertise to launch the courses in 2023. MNU also developed an elective course on energy audit designed to be a stand-alone course for professionals in the field. MNU is expected to offer the course to the first batch in last quarter of 2023.
		100 Professionals trained by the end of the project.	243 professionals have been trained.
		20 Professionals trained by the end of the project.	21 professionals have been trained.
		Continuous facility manager and procurement officers training mechanism established for	30 government facility managers from 12 government agencies trained on energy management of public buildings. 29 procurement officers from 14 government agencies trained on public procurement based on life cycle costing.

	T	T	
		government civil servants. Facility managers and procurement officers from 5-11 Government agencies trained by the end of the project. 100 Stakeholders trained by end of the project.	8 trainers trained on public procurement based on life cycle costing in association with civil service training institute. Trainers have been trained by the Civil Service Training Institute and MECCT to conduct continuous capacity building programs. A total of 121 stakeholders from Maldives Customs Service, Importers, Retails, Salesperson and Government officials has been trained on the implementation of S&L
Outcome 4: Monitoring and assessment system are put in	Data collection & management system does not exist.	A functioning database system is established.	program. Database on energy use monitoring system developed.
place to measure effectiveness of the project interventions and facilitate widespread replication.	EE promotional activities have been few and far between and the results have never been measured.	Energy efficiency awareness sessions conducted for 300 students from various schools of the country.	Energy Efficiency awareness sessions were conducted for 420 students and 38 teachers to 9 schools in nine atolls. 59% of the students were female and 42% were male students.
•		100 members of Maldives Girl Guide Association (MGGA) and The Scout Association of Maldives (SAM) attains the energy efficiency badge.	The Energy Efficiency Badge was launched in March 2019. Badges and leader's guidebook provided to MGGA and SAM. Both associations have incorporated the badge syllabus into their program and have started to train additional leaders to assist the members to attain the badge.
			266 Little Maids who have participated in the Surf Smart, 8th National Sixer's Camp 2019, Organized by Maldives Girl Guides Association (MGGA) has achieved the Energy Efficiency (EE) Badge.
		Promotional materials are distributed to the public at least twice a year.	Awareness materials on labelling program were distributed to the public with the launching of the program through local news channels, and MECCT's social media handles in this reporting period.
	20% of	Website informing public on EE measures in buildings launched	Webpage was developed and launched in the MECCT website to inform public on EE measures in buildings in September 2022.
	39% of survey participants knows and understands what energy efficiency means.	30% increase from the baseline on what energy efficiency means.	

15% of survey	50% increase from	
participants know	the baseline on	
what is an energy	what energy label	
label.	means.	

Rating: The TR rating for this criterion is Satisfactory as some of the activities will continue even after the completion of project duration.

5.4.3 Likelihood of Impact

115. The project has made a significant impact as it has both supported policy/regulatory change and established financial mechanism to support energy efficient appliances. A significant capacity has been created in government and other stakeholders to support energy efficiency efforts in the country. The awareness level has been raised through continuous programs and has resulted in an increase in citizens' level of energy efficiency label understanding. The project took longer than planned but has achieved most of its outputs, which will have a significant impact. The process was slow as this was the first effort of the energy efficiency policy framework being implemented. The onset of COVID-19 in early 2020 too severely impacted the momentum of the project and despite this the project completed all its activities.

Rating: The TR rating for this criterion is Satisfactory.

5.5 FINANCIAL MANAGEMENT

- 116. No evidence was brought to the attention that UNEP and GEF's financial policies and procedures were not adhered to. However, summaries of annual and overall financial information were provided. UNEP has provided the copies of project cooperation agreements, budgets and the revised budgets, co-finance report and the overall expenditure report.
- 117. The consultant was not made aware of any delays in the availability of funds that had any impact on project implementation. In addition, the consultant found that there was flexibility to adjust budgetary provision to changes in project implementation. The project budget was modified after the mid-term review to support the achievement of 4 outcomes in place of 8 in the original project design.
- 118. Budget reallocations were confined to specific outputs and activities within each project component (table 5 below shows budget and expenditures per component).
- 119. The amount committed by the GEF Trust Fund was US\$ 3,885,000.00.
- 120. Total expenditure as reported by the project on 30th June 2022 was US\$ 3,760,913.80.

Components **Planned Budget in USD Expenditure in USD** (As provided in ToR) (As per final report submitted) Component – 1 694,539 669,278 Component – 2 1,923,373 1,913,230 Component – 3 568,181 534,952 342,530 340,609 Component – 4

Table 4: Project Component wise Budget and Expenditure

PMC	306,378	302,845
Total	3,835,000	3,760,914

- 121. The three no-cost extensions to project duration had no impact on the budget.
- 122. The project reported US\$ 38,360,869.00 as co-finance contributions through parallel projects which reinforce in the areas of technical support in reviewing terms of references, project outputs; staff time for procurement, communication, IT services and administrative activities; organizing and participation in meetings and workshops; knowledge sharing, training, and associated travels; use of premises and resources; sharing of office resources, printing, communications, media reports and news coverage. Additionally, the project partner HDC is developing Auto Centre with the BREEAM good rating. Financing program for energy efficiency appliances has been established at Maldives Islamic Bank (MIB) with co-financing by the bank. Letters supporting the various co-finance partners (including newly leveraged partners) have been provided. Partner reports on their actual co-finance commitment were also provided. Detailed information on co-finance is provided in Annex 7.3.
- 123. An effective communication of financial information was observed between the project team, notably between the fund management officer, the Project Director, Project Technical Coordinator, and other project staff. All parties indicated a high degree of satisfaction with the project communication.
- 124. The Project Director, Project Technical Coordinator, and Fund Management Officer demonstrated a common understanding of all transactions and financial communications that occurred during implementing the Project. The internal management of the project facilitated ease-in-communication, with clarity of all transactions among all relevant parties.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.6 **EFFICIENCY**

- 125. During the mission meetings, several stakeholders, mentioned that "it is not possible to attribute (the intended results) to this project in isolation" This is the best evidence of efficiency in project implementation and a confirmation of the project's coherence and complementarity with existing initiatives.
- 126. There is evidence that the project was coherent and complementary to other initiatives supported by the other ministries and international agencies aimed at building capacity of SIDS in effectively implementing clean energy and climate change projects. The continued commitment of the project partners in Maldives, even after the project completion, is demonstrative of an efficient use of resources.
- 127. This was the first project implemented in the Maldives specifically in the area of energy efficiency in buildings. It was important that the project was designed with interventions in all areas policy, regulatory, financing, capacity building, knowledge and awareness, and implementation of pilots. Building on parallel activities on-going in the country, the project paved the way to drive some of the regulations under the building construction act, the energy act, and the climate change act.
- 128. The Project received three no-cost extensions in December 2019, December 2020, and February 2022 respectively. The original completion date was March 2019. After three extensions, the

- project implementation was completed in June 2022. During the entire period, the outputs and activities were implemented efficiently.
- 129. Some of the milestones achieved by the project are unique in comparison to other countries. The LCEI project was able to mobilize financing from MIB and launch the financing scheme to promote the purchase of Hakathari labelled air conditioners. The Maldives National University has designed the course on energy efficient designs for buildings and the customs department is actively supporting the monitoring of imports. Many examples about the achievements under the project can be quoted.

Rating: The TR rating for this criterion is Satisfactory.

5.7 MONITORING AND REPORTING

5.7.1 Rating for Monitoring Design and Budgeting

- 130. The design of the project monitoring follows good practice established by UNEP, MECCT and GEF.
- 131. The Results Framework is the cornerstone of the monitoring plan of the project, which foresees a yearly and a six-monthly report. A Project Terminal Report was also foreseen in the project design.
- 132. A mid-term review and a final review have been foreseen in the monitoring plan and budgets were allocated for both. No specific budget was allocated to the six-monthly, annual, and terminal report, but as these are tasks of the project team, they are covered by the respective fees.
- 133. The indicators included in the Results Framework are SMART, although it is noted that indicators and targets were only defined at outcome and project objective level. Output level indicators were not found in any of the reports. It would have been useful to include indicators and targets at the output level as well. It was observed that the indicators defined for outcomes could have been more specific, to better capture progress towards formulation of country-specific institutional coordination strategies.
- 134. The project budgeting and reporting was found as per the UNEP and GEF requirements.

Rating: The TR rating for this criterion is **Satisfactory**.

5.7.2 Rating for Monitoring of Project Implementation

- 135. The PIRs submitted by the project have presented the progress as per the results and found consistent with the Results Framework of the project. The only limitation is the absence of output level indicators. Due to this, it is difficult to effectively monitor the progress at output level. All the reports and the project monitoring were consistent with the ProDoc and GEF's requirements.
- 136. The PIRs have followed a structure for reporting the progress every year. The structure covers the implementation status, risks, risk ratings, co-financing, stakeholder engagement, progress against indicators, etc. The PIRs also present the progress against each outcome and output but somehow a section on the constraints and key barriers encountered in implementation of various activities is missing from the PIRs. Considering that the project activities were delayed,

- and consequent extensions were provided, proper documentation of constraints and barriers would have been better for the effective monitoring.
- 137. The M&E plan presented in the ProDoc was revised after the change in the number of project components to finetune the indicators and their means of verification. The changes proposed were mostly linked to the baseline, mid-term, and end-of-project targets. The best possible attempts were made to ensure that the indicators meet the SMART criteria.

Rating: The TR rating for this criterion is **Satisfactory**.

5.7.3 Rating for Project Reporting

- 138. The Project's Implementation Reports (PIRs) were used to communicate the progress on implementation of project outputs and activities. These reports provided complete details of progress towards objectives, implementation progress, and risk management for the project against the component indicators. All reports that were assessed were complete and found to be consistent with the expected reporting standards.
- 139. Efforts were made in all the Project Implementation Reports to compare the implementation status at the end of the reporting period as compared to what was initially planned. The monitoring and evaluation in these reports describe activities that are relevant to the monitoring and evaluation.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.8 SUSTAINABILITY

5.8.1 Socio-Political Sustainability

- 140. The project is mainly driven by the MECCT with support from key stakeholders including Ministry of National Planning, Housing, and Infrastructure (MoNPHI), Ministry of Economic Development (MED), Maldives Customs Service (MCS), Housing Development Cooperation (HDC), Maldives National University (MNU), Maldives Islamic Bank (MIB), Utility Regulatory Authority, etc. When the project was initially formulated, there was a strong political will for the Maldives to become carbon neutral by 2020. However, along with the political changes, the focus has shifted from carbon neutrality to low carbon development. The government is committed to becoming a low carbon economy with much less ambitious GHG abatement targets. To overcome the accommodation shortage in the main island of Male', several new high-rise housing projects are mushrooming in Hulhumale' island. Both MoNPHI and MECCT are making a great number of efforts to make them low-energy buildings.
- 141. The sustainability of the project's outcomes has a high degree of dependency on socio-political factors. There is a good amount of ownership, interest and commitment among government and other stakeholders to sustain the project outcomes.

Rating: The TR rating for this criterion is *Likely*.

5.8.2 Financial Sustainability

142. The MECCT and MoNPHI are likely to continue supporting the implementation of the building energy code and rating system. Scaling up of pilot initiatives for new buildings, retrofitting existing buildings and market transformation for energy-efficient appliances require a bigger

- volume of funds. The MECCT and MoNPHI need to support the introduction of innovative financing mechanisms for retrofitting existing buildings. It is possible for the government to work towards mobilizing funding from international agencies to support the scaling up.
- 143. The project has demonstrated the successful partnering with an established financing institution, the Maldives Islamic Bank, and introduce a financing program to promote the purchase of Hakathari labelled appliances. Maldives Islamic Bank is one of the most prominent banks in the Maldives with an established customer base attaining financing for small goods and appliances. Additional benefits were attained by leveraging private sector financing for the implementation of the financing program; and capturing the bank's interest in expanding their portfolio into the area of climate financing.
- 144. Institutional arrangements have been established to operate the fund well beyond the life of the project. On the financial aspect, the funds made available from the project are being used as a fund for risk reduction and financing provided by the bank is being revolved. Hence, finance for consumers to make purchases of energy efficient products will be available well beyond the project life.

Rating: The TR rating for this criterion is *Likely*.

5.8.3 Institutional Sustainability

- 145. Institutional arrangements have been established at the Ministry to continue and strengthen the introduction of energy efficiency guidelines for buildings and the Hakathari labelling program (Standards and Labelling Program of the Maldives). The program will be continued by the Energy Efficiency Section at the Ministry of Environment, Climate Change and Technology (MECCT). Activities have been planned as next steps for the section to implement and oversee the program including Implementing standards and labelling program; implementing capacity building program for standards and labelling program; implementing public awareness activities on standards and labelling program; developing and gazetting the energy audit regulation; and developing and gazetting the new building certification.
- 146. The MECCT and the project management have done the best possible efforts to ensure institutional sustainability of the project outcomes beyond the project implementation timeline.

Rating: The TR rating for this criterion is *Likely*.

5.9 FACTORS AFFECTING PERFORMANCE AND CROSS-CUTTING ISSUES

5.9.1 Preparation and Readiness

- 147. This full-scale project (FSP) received GEF approval on 18 August 2014 with an allocation of US\$3,885,000 from GEF Trust Fund and committed in-kind co-financing of US\$ 250,000 from UNEP and US\$ 34,205,835 from the Maldivian Government. UNEP, the GEF implementing agency (IA) for this project gave approval to the Ministry of Environment, Climate Change and Technology (MECCT) (at that time known as the Ministry of Environment and Energy (MEE)) on 3 April 2015 to execute the project through its Energy Department with an expected completion date of March 2019. The project got started on 15 September 2015 and ended in June 2022 after getting three no-cost extensions.
- 148. There was a lack of technical capacity in Maldives. The implementation of energy efficiency for building and appliances was a new area of implementation for Maldives. The MECCT and other

stakeholders took their own time during the initial two years of the project but during the later years the technical capability was built within the country for delivering the project activities. The project hired technical experts/organizations/consultants from outside the country and used their expertise in implementing the outcomes and activities effectively.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.9.2 Quality of Project Management and Supervision

149. The project had a slow start in creating the necessary team for executing the project and then it took time to create the coordination with different actors in the country that was critical to successful execution of the project. It was expected that towards the end of the second year and third year the activities would speed up. This has not happened due to various factors including the time of getting approvals for contracts and initiating the work. This was the first time the country has taken total ownership of the project execution. Thus, it has been a learning phase for the MECCT and other stakeholders. The progress which was supposed to speed up from the beginning could only happen from the end of the third year. Further, given the baseline capacity and experience in the country, the timeframe for implementation and targets were too ambitious. The targets were revised, and the outcomes were reorganized for effective management. After the mid-term review, the project management and supervision drastically improved and met high quality standards.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.9.3 Stakeholder Participation and Cooperation

150. Project does not have a Stakeholder Engagement Plan. But the project management has properly engaged the key stakeholders in project design and implementation. There is evidence of responsiveness to stakeholder requests during project implementation. The roles played by the key stakeholders are discussed below.

Ministry of National Planning, Housing, and Infrastructure - The Ministry played a key role in facilitating the assessments and gathering the required data for the initial assessments undertaken by the project. These assessments were the first steps in the outputs developed under the project. In addition to this facilitative role, the Ministry's technical team played a major role in the development of the Energy Efficiency Guideline for Buildings in the Maldives.

Ministry of Economic Development - MED was a key stakeholder in the development of the labelling program. As Maldives is a 100% import-based country for electrical appliances, the MED ensured fair trade in the country.

Maldives Customs Service - MCS is the gatekeeper to the border of the Maldives. MCS played a key role in the development of the Energy Efficiency Labelling Program and in ensuring that the program was practical and applicable.

Housing Development Cooperation – HDC is the master developer for three pivotal islands of the Maldives: Hulhumalé, Thilafushi & Gulhifalhu. HDC was a member of the steering committee and facilitated by providing data for the development of the energy efficiency guideline and has developed the BREEAM weighing for the Maldives in consultation with BRE which would enable buildings of the Maldives to be BREEAM rated.

Maldives National University - MNU is the National University and worked in partnership with the project to update their course curriculums to incorporate energy efficiency and conservation aspects into their courses and develop energy auditor's module (stand-alone course) which would help in capacity building of professionals in this area in the Maldives.

Maldives Islamic Bank – MIB is one of the leading banks in the Maldives. MIB has partnered with the project and has initiated a special portfolio to provide low-cost financing to consumers who wish to purchase energy efficiency labelled appliances.

Utility Regulatory Authority – URA is responsible for regulating the energy sector. URA was a member of the steering committee and provided valuable input in the development of energy efficiency labelling program and energy efficiency guideline for buildings in the Maldives.

Architect Association of Maldives (AAM) and Association of Civil Engineers (ACE) – AAM and ACE are NGOs representing the Architects and Civil Engineers in the Maldives. Members of AAM and ACE who participated in the stakeholder consultations provided valuable inputs for the development of the energy efficiency building guideline of the Maldives.

Scout Association of Maldives (SAM), Maldives Girl Guide Association (MGGA) – SAM and MGGA are the biggest NGOs in the Maldives affiliated with schools. Hence, they are in the perfect position to spread awareness in energy efficiency, energy conservation and climate change through their activities. SAM and MGGA partnered with the project in the development of the energy efficiency badge.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

5.9.4 Responsiveness to Human Rights and Gender Equality

- 151. The project was designed under GEF 5. ProDoc has considered developing and adopting propor and gender sensitive policies in lending and financial mechanisms. For this, it is proposed to incorporate the collection of gender aggregated data in the design of the energy survey. It also considers using tools for gender analysis in formulating and mainstreaming gender aspects in energy efficiency policies and strategies. Some gender segregated data have been gathered under the consumer behavior study that was initially not part of the ProDoc. However, no gender segregated data has been used to develop and adopt pro-poor and gender-sensitive policies.
- 152. When advocacy programs and consultations related to project activities were conducted, the project ensures gender balance in the participation. Of all the trainings held during the project implementation, participation of approximately 40% female and 60% male participants has been ensured.
- 153. Project utilizes different mediums when conducting awareness activities, to ensure outreach to both genders and all age categories, e.g., TV, social media, radio etc.

Rating: The TR rating for this criterion is Satisfactory.

5.9.5 Environmental and Social Safeguards

154. Project activities are designed to accelerate the uptake of energy efficient products which may accelerate obsolescence of inefficient products. Project communications materials have been developed to include guidance on safe disposal where necessary. Waste management in the greater Male' urban area which is the point of import where all appliances enter the country, the waste collection and management has been brought under a single government company (Waste Management Corporation Ltd – WAMCO). Awareness material contains information on safe disposal of appliances according to related rules of WAMCO. For the safe disposal of lights, a bulb crusher has been supplied to WAMCO by the project.

155. The Energy efficiency labelling program has integrated the energy efficiency standards with the standards for zero-ODP and low-GWP refrigerants. As such the project worked with the National Ozone Unit to provide technical training through the Kigali Enabling Activities to ensure the safe and effective handling and disposal of new refrigerants.

Rating: The TR rating for this criterion is **Satisfactory**.

5.9.6 Country Ownership and Drivenness

156. Maldives has shown high level of ownership and drivenness to ensure effective implementation and sustainability of the project. Due to the active support from MECCT, MoNPHI and other government institutions, the project has made a significant impact in terms of bringing policy and regulatory changes and in establishing the financial mechanism to support energy efficient appliances. A significant capacity was created in government and other stakeholders to support energy efficiency efforts in the country. The awareness level has been raised through continuous programs and has resulted in an increase in citizens' level of energy efficiency label understanding. The project took longer than planned but, due to high level of drivenness, has achieved most of its outputs. The onset of COVID-19 in early 2020 impacted the momentum of the project but due to the high level of country ownership, the project was able to complete all the activities.

Rating: The TR rating for this criterion is **Satisfactory**.

5.9.7 Communication and Public Awareness

- 157. The LCEI Project used the social media platforms of the Ministry of Environment, Climate Change and Technology to provide tips on energy efficiency. The project developed the posters and video spots and shared them with the help of Facebook and twitter handles of the ministry. Posters with energy efficiency messages were printed and distributed to different stakeholders. The #LCEI is in use for all social media posts done through the project.
- 158. Posters and video spots were developed on standards and labelling program. In the first phase, prior to the launching of the labelling program, general awareness on energy efficiency and conservation was disseminated. Immediately following the launch of the labelling program, the Hakathari web page was launched and posters and video clips informing about the labelling program and specifically on the appliances included in the program were disseminated.
- 159. In addition to this, posters with energy efficiency messages were printed and distributed to different stakeholders. This included the participants of the Hakathari Program to assist them in disseminating awareness material to their customers; and distribution of these material at various awareness events held by the MECCT like the Environment Day event held at Fuvahmulah on 4th June 2022.
- 160. The project was successful in communicating with stakeholders and beneficiaries. Anecdotal evidence is the continued use of some of the project deliverables and social media platforms.

Rating: The TR rating for this criterion is *Highly Satisfactory*.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

- 161. The Maldives is at the forefront of vulnerability to the impacts of climate change. Climate variability is imposing increasingly untenable social, environmental, and economic costs on the Maldives. The country realized that without concerted actions, at both national and international levels, this trend is likely to continue well into the future. All plausible climate change scenarios suggest that there would be unprecedented and potentially devastating impacts on natural and human systems of Maldives.
- 162. The Ministry of Environment, Climate Change and Technology (MECCT) being the main agency responsible for the planning and execution of activities on environmental protection, preservation, and management, has taken the initiative to conceptualize and implement the LCEI Project with funding support from UNEP/GEF. The national focal point of Green Climate Fund (GCF), GEF Operation Focal point and the UNFCCC are located at the MECCT. The Climate Change Department at the Ministry coordinates the activities related to climate change, in close collaboration with other relevant Ministries and agencies.
- 163. The "Strengthening Low Carbon Energy Island Strategies (LCEI) Project" was developed with the objective of strengthening the building sector of the Maldives to address energy efficiency issues and promote investment in energy efficiency technologies and design. The project was designed with an extensive stakeholder engagement (as described in the ProDoc and confirmed in the interviews), managed to produce the desired outcomes. The project ensured that it was coherent and complementary to other initiatives, which in turn have played an important role in the achievement of the project. The project worked well with all the partner agencies and key stakeholders in Maldives.
- 164. The MECCT has shown a great amount of commitment to the implementation of the project. This is demonstrated by the fact that MECCT took the initiative of developing the ProDoc along with the UNEP team prior to its submission for GEF approval. MECCT also ensured the implementation with the help of local stakeholders. The UNEP coordinated the reporting requirements to GEF, performing M&E, and providing direction through the Steering Committee for the achievement of project's result framework.
- 165. The intervention of the LCEI project found justified as it has an objective to mainstream energy efficiency measures into housing policies, guidelines, standards and building practices in Maldives. The project was expected to contribute to reducing the energy demand of buildings through improved building design and deployment of more energy-efficient appliances used in buildings, thus reducing the demand for energy, and contributing to a substantial abatement of GHG emissions.
- 166. The planned project outputs for each of the project components were available, and the amount of policy and project action observed under various activities showed that the project stimulated concrete actions in accelerating the efforts for decarbonizing the building sector in Maldives. There is a political will in Maldives to sustain the project results. While the key drivers and assumptions to translate project outputs to outcomes, outcomes to intermediate states and then to the overall project impact are largely in place, there is more scope for private sector to make financial commitments for investing in building energy efficiency. The recommendations made in MTR have led to mobilize increased involvement of the private sector. The commitments made and delivered by the Maldives Islamic Bank is one of the best examples

- about private sector commitments. The EE appliance and EE buildings initiatives should continue working with appliance suppliers, architects, and developers to mobilize their participation. The building and appliance market in Maldives has great potential for implementation of EE.
- 167. The project established a Project Management Unit (PMU) within the MECCCT. The PMU was managed by a dynamic team of professionals who were in the phase of their learning curve than in a capacity to deliver the project outputs. PMU also hired the services of national and international consultants to deliver the project outcomes. The M&E conducted by the UNEP was generic, but the project budget was managed efficiently after the initial delays during the first two and half years.
- 168. The Project Steering Committee played its role and guided the project throughout the implementation phase. The Steering Committee was composed of high-level stakeholders and/or experts who provided advice and guidance on key issues and the general course of the project's operation. Although the representation of MECCT officials dominated the Steering Committee, the stakeholders from other Ministries and quest invitees from partner agencies have also contributed to decision making and reviewing of progress against annual work plans.
- 169. The UNEP played the supportive role in providing direction for the project to achieve the results. UNEP ensured technical and management contribution to support the smooth execution of the project. The project benefitted through leveraging the experiences gained by UNEP from regional projects into this national project.
- 170. The project is strategically relevant because of its alignment with the global, regional, and national environmental priorities, it has been effective in delivering the desired outputs and outcomes. The project design was satisfactory, and the implementation of key outputs helped in building the capacities of the public and private sector stakeholders.

6.2 SUMMARY OF PROJECT FINDINGS AND RATINGS

171. The table below provides a summary of the ratings and findings discussed in Chapter 5. Overall, the project demonstrates a rating of "Satisfactory".

UNEP Evaluation Office Validation of Performance Ratings:

The UNEP Evaluation Office formally quality assesses (see Annex XXX) management led Terminal Review reports and validates the performance ratings therein by ensuring that the performance judgments made are consistent with evidence presented in the Review report and in-line with the performance standards set out for independent evaluations.

The Evaluation Office assesses a Terminal Review report in the same way as it assesses the initial draft of a Terminal Evaluation report. It applies the following assumptions in its validation process:

- That what is being assessed is the contents of the report and the extent to which it makes a consistent and justifiable case for the performance ratings it records.
- That the consultant has, within the report, presented all the evidence that was made available to them.
- That the Review has been based on a robust Theory of Change, reconstructed where necessary, which reflects UNEP's definitions at all levels of results.
- That the project team and key stakeholders have already reviewed a draft version of the report and provided substantive comments and made factual corrections to the Review Consultant, who has responded to them. The Evaluation Office assumes, therefore, that it has received the Final (revised) version of the report.

In this instance the Evaluation Office validates the overall project performance rating at the 'Satisfactory' level.

Table 5: Review Rating Table

		rable 5: Review Rating 1			
	Criterion	Summary Assessment	Rating*	Justification for any Ratings' Changes due to Validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
	A. Strategic Relevance	Project has high strategic relevance, and it is rated highly satisfactory.	Highly Satisfactory	Rating Validated	Highly Satisfactory
	 Alignment to MTS, POW, and strategic priorities 	Aligned with UNEP MTS 2014-17 and POW 2014-15.	Highly Satisfactory	Rating Validated	Highly Satisfactory
2.	Alignment to UNEP/GEF Strategies Priorities	GEF Strategic Objective 2 of Climate Change mitigation and Bali Strategic Plan.	Highly Satisfactory	Rating Validated	Highly Satisfactory
3.	Relevance to Global, Regional, Sub- regional and National Environmental Priorities	Maldives National Strategy for Sustainable Development 2009 and Third National Environmental Action Plan 2009-13.	Highly Satisfactory	Rating Validated	Highly Satisfactory
4.	Complementarity with Relevant Existing Interventions/ Coherence	Complimentary to 11 national and 4 international GEF interventions.	Satisfactory	Rating Validated	Satisfactory
B.	Quality of Project Design	Project design is very good and targets the energy efficiency improvement in building and appliance sectors.	Satisfactory	Rating Validated	Satisfactory
C.	Nature of External Context	Political context and economic conditions have led to a certain level of erosion in the country's commitment to carbon neutrality.	Moderately Favourable	Rating Validated	Moderately Favourable
D.	Effectiveness		Satisfactory	This rating is a weighted aggregation of the subcategories below.	Moderately Satisfactory
	1. Availability of Outputs	Outputs are available. Outputs were reorganized and delivered within the period of the project. The project was given 3 no cost extensions for an overall period of 39-months.	Highly Satisfactory	Rating Validated	Highly Satisfactory
2.	Achievement of Outcomes	Outcomes have been partially achieved.	Satisfactory	This sub-category is validated at the Moderately Satisfactory level. This is because the outcomes are either not assessed at an	Moderately Satisfactory

Criterion	Summary Assessment	Rating*	Justification for any Ratings' Changes due to Validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
			outcome level or were not fully achieved. Outcome 1 aims for 'adoption' but only some elements have reached an 'endorsement' level. Not achieved. Outcome 2 Achieved. (although the target of one initiative is too low to realise the intermediate state) Outcome 3 Training is not an outcome level as it does not reach the 'uptake of outputs'. The limitation of this outcome should have been addressed in the TOC reconstruction. Partially achieved. Outcome 4 The outcome was a functioning system and the monitoring system is not in use. Partially achieved.	
3. Likelihood of Impact	Project impact is achieved.	Satisfactory	Impact is assessed against a scale of 'likelihood'. The likelihood of impact appears doubtful because of the government's apparent lack of commitment, especially concerning policy change, which is crucial for long-term success. This subcategory is validated at the Moderately Satisfactory level.	Moderately Likely.
E. Financial Management		Highly Satisfactory	The material to support the assessment of this criterion is found in the table on page 88.	Highly Satisfactory

	Criterion	Summary Assessment	Rating*	Justification for any Ratings' Changes due to Validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
				Rating Validated	
	 Adherence to UNEP's policies and procedures 	The financial information made available adhere to UNEP's policies and procedures.	Highly Satisfactory	Rating Validated	Highly Satisfactory
2.	Completeness of project financial information	Project financial information is quite complete. The project components wise expenditure details are available along with the documents providing proof of delivery of in-kind contributions.	Highly Satisfactory	Rating Validated	Highly Satisfactory
3.	Communication between Finance and PM staff	The communication between finance and project staff was found to be satisfactory.	Highly Satisfactory	Rating Validated	Highly Satisfactory
F.	Efficiency	The project was coherent and complementary to other initiatives. The activities were completed successfully after 3-years no cost extension.	Satisfactory	Rating Validated	Satisfactory
G.	Monitoring and Reporting		Satisfactory	This rating is a weighted aggregation of the subcategories below.	Satisfactory
	Monitoring design and budgeting	The design of the monitoring of the project follows good practice, with references to established UNEP and GEF procedures.	Satisfactory	Rating Validated	Satisfactory
	Monitoring of Project Implementation	The monitoring of project implementation found to be satisfactory. The monitoring strategy changed mid-course due to the merger of 8 outcomes to 4. The problems encountered during implementation could have been documented little more precisely.	Satisfactory	Rating Validated	Satisfactory
3.	Project Reporting	PIRs done by the project team reflect the progress made under each	Highly Satisfactory	Rating Validated	Highly Satisfactory

	Criterion	Summary Assessment	Rating*	Justification for any Ratings' Changes due to Validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
		component. Reports are found highly satisfactory.			
Н.	Sustainability		Likely	Rating Validated	Likely
	Socio-political Sustainability	Evidence of interest and commitment noted among government and other stakeholders to sustain the project outcomes.	Likely	Rating Validated	Likely
2.	Financial Sustainability	Project outcomes need continued financial support from government or other agencies. No future funding requirements have been secured.	Likely	Since there is no funding for a continuation/extension of the project, the sustainability of the project proves difficult. This sub-category is rated at the Moderately Likely level.	Moderately Likely
3.	Institutional Sustainability	Institutional structure is in place and evidence of enhanced institutional capacity is noted.	Likely	Rating Validated	Likely
I.	Factors Affecting Project Performance and Cross Cutting Issues		Highly Satisfactory	This rating is a weighted aggregation of the subcategories below.	Satisfactory
	1. Preparation and Readiness	After the 2 nd and 3 rd extension, the project plans and implementation improved. The reporting also improved and full representation of staff, stakeholder engagement and coordination were very effective.	Highly Satisfactory	The project faced challenges during implementation. This sub-category is validated at the Satisfactory level.	Satisfactory
	Quality of Project Management and Supervision	The evaluator found no evidence that the project management and supervision were not of the highest standard.	Highly Satisfactory	The GEF requires a rating for each of the Implementing (HS) and Executing (HS) agencies. Rating Validated	Highly Satisfactory
3.	Stakeholders Participation and Cooperation	Stakeholders were properly engaged in project implementation and there is evidence of responsiveness to stakeholder requests during project implementation.	Highly Satisfactory	Rating Validated	Highly Satisfactory

Criterion	Summary Assessment	Rating*	Justification for any Ratings' Changes due to Validation (to be completed by the UNEP Evaluation Office – EOU)	EOU Validated Rating
Responsiveness to human rights a gender equality	Limited gender considerations in reports. The financing mechanisms developed under the project focus on all economic sections of society.	Satisfactory	The project did not clearly address gender and human rights issues, although they were identified as having the potential to be important. This sub-category is validated at the Moderately Unsatisfactory level	Moderately Unsatisfactory
5. Environment and social safeguard	Potential environmental and social risks and impacts associated with project and program activities were reviewed more closely after the Midterm review. The project management was found aware and concerned about safeguarding.	Satisfactory	The monitoring and management of environmental and social safeguards is not in evidence. This sub-category is validated at the Moderately Satisfactory level.	Moderately Unsatisfactory
6. Country ownership and drivenness	Stakeholder engagement during project implementation and adaptive management ensured ownership.	Satisfactory	Rating Validated	Satisfactory
7. Communication and Public Awaren	The project was successful in communicating with stakeholders and beneficiaries. The social media and other campaigns and stakeholder consultations ensured higher amount of awareness about outcomes like Hakathari Program.	Highly Satisfactory	Rating Validated	Highly Satisfactory
Overall Project Rating		Satisfactory		Satisfactory

^{*} Ratings includes - Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated from Highly Likely (HL) down to Highly Unlikely (HU) and Nature of External Context is rated from Highly Favourable (HF) to Highly Unfavourable (HU). The ratings against each criterion are 'weighted' to calculate the Overall Project Performance Rating.

6.3 LESSONS LEARNED

172. Lesson Learned # 1: LCEI is the first project implemented in Maldives focusing on energy efficiency in buildings and home appliances. The project targeted the key areas like policy, regulations, financing, implementation of pilots, capacity building of public and private sector stakeholders, awareness raising, knowledge management, and reporting to international commitments of Maldives. Building on parallel activities on-going in the country, the project paved the way to drive some of the regulations under the building construction act, the energy act, and the climate change act. The project facilitated the enactment of Construction Act (4/2017), which paved the way to create an enabling environment for promoting energy efficiency in the building sector. In addition to this, Maldives Energy Act (18/2021) was ratified on 11th October 2021. It establishes a legal framework of standards and laws for the provision of energy in the Maldives, dealing with both the production and consumption of energy. The standards and labelling program were launched on 16th September 2021 as a voluntary program. These are excellent contributions to the country, and it can be replicated in other SIDS.

Context/Comments: The project paved the way for introduction of relevant policies and programs in Maldives, which is an example for replication in other SIDS.

173. Lesson Learned # 2: The Project Management Unit at MECCT collaborated well with the National Ozone Unit to streamline the standardization for energy labelled appliances. Maldives has set an example through developing the energy efficiency labelling program keeping the requirements of national ozone targets in mind. The energy efficiency labelling for refrigerants containing air conditioners and refrigerators is covered in the program. The Hakathari label provides the ODP and GWP level information of the refrigerant. This is one of the leading examples as many countries at advanced stages of labeling program implementation don't yet have this kind of information displayed on energy efficiency labels. The process is well streamlined so that appliances being vetted for energy efficiency labelling will also be checked for ODP and GWP requirements.

Context/Comments: Maldives has set an example through integrating the national ozone targets while designing the energy efficiency labelling program. Due to this, the appliances being vetted for energy efficiency labelling can also be checked for ODP and GWP requirements.

174. Lesson Learned # 3: The MECCT team not only did activities stated in project document they have been activity seeking opportunities to partner with various organization to achieve the project objectives. Such as conducting the first Energy Audit Certification course through the Association of Energy Engineers. Other such initiative is capacity building arrangements that was done during the early years of the project where the team secured partnership with Energy Efficiency Services Limited (EESL), India to conduct tailor made course for standards and labelling program. This was one of the key sustainable capacity building activities organized by the project team which led to the successful implementation of the Hakthari Program.

Context/Comment: The project helped Maldives in establishing international partnerships to build local capacity.

175. Lesson Learned # 4: The project was specifically designed to provide the foundation needed for sustainable energy efficiency actions in the Maldives. The foundation of the project was the building of local capacity to locate areas where improved energy efficiency is needed and the development of long-term financing mechanisms through local institutions to provide for the continuing investment in energy efficiency measures. The project achieved success in building

the local capacity in Maldives. The project was able to engage with stakeholders from private sector, Government Ministries and departments, NGOs, financing institutions, architect association and the academia in Maldives. The partnership build with Maldives National University and the Maldives Islamic Bank are the successful examples for replication in other similar countries. The Maldives Islamic Bank has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. Similarly, the Maldives National University designed courses for the undergraduate and post graduate students.

Context/Comment: The mobilization of USD 1,000,500.00 from Maldives Islamic Bank for financing the Hakathari labelled appliances and designing of courses for undergraduate and post graduate students by the Maldives National University are the examples of meaningful participation of key stakeholders.

176. Lesson Learnd # 5: The project highly focused on Capacity development to sustain the momentum. Several capacity building activities were undertaken by the project in the areas of energy auditing, developing, and implementing standards and labelling programs, energy efficiency financing, energy efficient building designs and energy modelling of buildings, training of trainers, life cycle costing, training for marketing and distribution of energy efficient appliances. This has built the local capacity to sustain the project outcomes even after the completion of implementation period.

Context/Comments: Long term sustainability of project outcomes has been ensured during implementation of project activities.

177. Lesson learned # 6: Considering that the implementation of energy efficiency in building would require energy audits and technical expertise, the project has organized focused training sessions for energy auditors with support from the international organization "Association of Energy Engineers". This engagement has allowed internationally recognized energy auditor certifications for Maldivian energy auditors. In addition to this, it has also opened networking avenues for increasing their knowledge and continuing their professional development in this area. The project has engaged the Maldives National University, a public educational institute to sustain the capacity building efforts under the project. MNU worked in partnership with the project to update their course curriculums to incorporate energy efficiency and conservation aspects into their courses and developed energy auditor's module (stand-alone course) which would help in capacity building of professionals in the Maldives. For a small country like Maldives, this innovative approach of developing course curriculums will have a positive impact on continued capacity building activities.

Context/Comments: The Maldives National University updated the curriculum to incorporate energy efficiency and designed a training module for energy auditors. This will help in transforming the energy efficiency market.

178. **Lesson Learned # 7:** In partnership with the Maldives Islamic Bank (MIB), the project was able to launch a financing program to promote the purchase of energy efficiency labelled appliances. MIB is one of the most prominent banks in the Maldives with an established customer base attaining financing for small goods and appliances. Additional benefits were attained by leveraging private sector financing for the implementation of the financing program; and capturing the bank's interest in expanding their portfolio into the area of climate financing.

Context/Comment: Maldives is one of the few countries to design and launch an innovative financing program to promote the sale of energy efficient appliances.

179. Lesson Learned # 8: Institutional arrangements have been established at MECCT to continue and strengthen the Hakathari labelling program. MECCT has planned the activities as the next steps for continued implementation and monitoring of the program. These activities include the implementation of standards and labelling program; implementation of capacity building sessions for standards and labelling program; implementing public awareness activities on standards and labelling program; developing and gazetting the energy audit regulation; and developing and gazetting the new building certification. Getting the approvals from the Minister of MECCT and the Economic Council at the Ministry of Economic Development confirms the commitment to continue implementation. The LCEI Project has already integrated the processes and procedures into the functions of MECCT and Maldives Customs Services (MCS). For the implementation of the labelling program, a separate section was established at the Energy Department of the MECCT. This ensures the sustainability of the program.

Context/Comment: The approvals from the Minister of MECCT and the commitment from Economic Council at the Ministry of Economic Development confirms the long-term sustainability of project outcomes.

180. Lesson Learned # 9: The building sector is the major user of Refrigeration and Air Conditioning (RAC) equipment. Guidelines, codes for promoting green/ energy efficient building material, and design and building construction using climate friendly alternatives of HCFC in RAC is a useful tool for achieving accelerated phaseout objectives. The draft compliance documents of the building code have been incorporated with the Energy Efficiency provisions. Compliance documents are developed for the Ministry of National Planning, Housing, and Infrastructure (MNPHI), MNPHI has ownership of the compliance documents under the Construction Act of Maldives. MNPHI had committed to continue with the legal process for finalization of the compliance documents. The following compliance documents were developed with respect to the Energy Efficiency Guideline for Buildings in the Maldives: a) Ventilation, b) Natural Light, c) Artificial Light, d) Energy Efficiency. As such, in addition to the efficiency level, the Hakathari Label also identifies the refrigerant information in RAC equipment. Presently, it is set to eliminate the equipment containing ozone depleting substances and provides the avenue for implementing standards for GWP in RAC equipment.

Context/Comment: The project facilitated that the draft compliance documents of the building code have been incorporated with the Energy Efficiency provisions.

181. Lesson Learned # 10: Considering that the children and youth can play a major role in generating the awareness about energy efficiency in energy consumers, general public, their family members and the women, intense awareness raising sessions were organized by LCEI Project for school students, teachers and the associations like Maldives Girl Guides Association (MGGA) and the Scout Association of Maldives (SAM). The energy efficiency badge helped in raising awareness and increasing the knowledge on energy, energy efficiency and climate change in the youths. The badge was developed in cooperation with the MGGA and the SAM. The Scout Association of Maldives is a member of the World Organization of Scout Movement (WOSM) since 23 July 1990. The mission of Scouting is to contribute to the education of young people. through a value system based on the Scout Promise and Law to help build a better world where people are self-fulfilled as individuals and play a constructive role in society. The Maldives Girl Guides Association is the largest voluntary organization for girls and young women in the Maldives. They are a member of World Association of Girl Guides and Girl Scouts (WAGGGS) which is of the world's largest voluntary organization for girls and young women. The project supported both organizations with printed badges to initiate the implementation. As there is a

small fee associated with all badges, the associations will be able to continue the energy efficiency badge in a sustainable manner after the project ends.

Context/Comment: Project engaged the scout and guides associations in Maldives to sensitize the children about energy conservation.

6.4 RECOMMENDATIONS

182. The key recommendations are summarized below.

- 1. Recommendation #1: The project has established excellent quality of partnerships with both public and private sector institutions in Maldives and with many international organizations. The continued implementation of energy efficiency guidelines for buildings, building code, energy efficiency labelling program for appliances and the training of energy auditors need funding support to sustain. Thus, it is recommended that MECCT should ensure funding either from its own resources or write a proposal to the Green Climate Fund or to other international funding agencies. The Hakathari labeling program is an excellently designed program and need funding support to continue transforming the energy efficiency market in Maldives.
- 2. Recommendation #2: The project has collaborated well with the National Ozone Unit to design an effective energy efficiency labeling program and the energy efficiency guidelines for buildings. The Hakathari label displays the ODP and GWP level information of the refrigerant. This has eliminated the need for an additional process to implement refrigerant requirements in electrical appliances. This coordination between the Energy Efficiency Section at MECCT and the National Ozone Unit should continue.
- 3. Recommendation #3: The Energy Efficiency Section under MECCT should recruit more importers and retailers to ensure a hundred percent import of energy efficient appliances. At the time of TR, only two importers were found associated with the project. Others are still importing inefficient appliances. The products currently under the labelling program are zero duty products, so there are no financial incentives for the importers to participate in the program. During the Covid times, the Maldives Parliament has passed an order to allow zero duty imports of all home appliances. The MECCT discussed this issue with Parliament during the import duty revision. It was informed that next revision can be made to give incentives to energy efficient products once labelling program is fully operational. After the completion of project duration, the efforts to systematically approach the Government and the importers have diluted. It is recommended that MECCT should continue with their efforts to persuade the Government of Maldives to amend the Order to discourage zero duty imports of appliances.
- 4. Recommendation #4: With support from LCEI Project, the Maldives National University (MNU) has developed energy efficient building design courses for undergraduate and post graduate architect students. The effective delivery of these courses needs funding support for infrastructure development and conducting on-the-job training. The Maldives Government should develop a mechanism to support this initiative as the future transformation of energy efficient building market would heavily depend on locally trained architects and experts. Also, the Maldives Architects Association should volunteer to assist MNU in teaching the new courses.
- 5. Recommendation #5: The Maldives Islamic Bank (MIB) has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. The MIB has also launched an innovative financing scheme for the purchase of Hakathari labelled air-conditioners. At the time of TR, only two consumers had

taken the benefit of the financing scheme. This may be due to the first-time exposure to the financing schemes for the citizens and they need more time to adopt and decide on the use of this facility. Also, the initial phase for raising awareness about the financing scheme was slow to pick-up pace. Given the above and in consideration of the fixed time frame for the project execution, the outreach plan to popularize the scheme couldn't work effectively. Thus, it is recommended that the MECCT and the Energy Efficiency Section should work with MIB and encourage them to design and launch a few effective consumer awareness programs to promote the purchase of Hakathari labelled air-conditioners. The bank has the financial resources to cover the costs. It is only the technical support that is needed.

- 6. Recommendation #6: The Housing Development Cooperation (HDC) now known as URBANCO is a government promoted company working for certification of buildings in Maldives. URBANCO has adopted BREEAM Building certification system for certification of commercial and other categories of green buildings in Maldives. HDC (now URBANCO) was a member of the LCEI Project Steering Committee and facilitated by providing data for the development of the energy efficiency guideline. The LCEI Project has supported HDC to attain the BREEAM "very good" certification for their upcoming Green Office Building. At the time of TR, URBANCO still didn't have the capacity to assess commercial buildings as the available assessors are trained only in assessment of community housing projects and not the commercial buildings. URBANCO should be encouraged by the Maldives Government to engage more trained experts to accelerate the certification of energy efficient or green buildings.
- 7. **Recommendation #7:** The projects like LCEI require continuous encouragement from UNEP to involve all relevant stakeholders and other project partners to ensure that specific plans and engagement strategies be developed to foster widening the base of stakeholders that can participate in building the actions for energy efficiency implementation, particularly regarding marginalized gender groups and urban poor. UNEP should continue encouraging MECCT for being sensitive towards gender and urban poor while scaling up the implementation of building and appliance sector energy efficiency projects.
- 8. Recommendation #8: The Maldives Customs is playing a key role in monitoring the import of energy efficient home appliances from Malaysia and other countries. During the interview with Maldives Customs, it became apparent that the imported appliances do come with the label on them but there is no label on the packing boxes. This makes it difficult to cross verify the appliances without opening the box. Thus, it is recommended that Maldives Government should make it mandatory for importers to import the appliances with energy efficiency label displayed on both the appliance and the packing boxes.

7 ANNEXES

7.1 **RESPONSE TO STAKEHOLDER COMMENTS**

Page Ref.	Stakeholder Comment	Evaluators Response	UNEP Evaluation Office Response
16	May compare the scenario at the MTR stage and the efforts taken basis recommendations from MTR. Further it is also requested to link this with the commitments made the Maldives Islamic Bank.	Integrated. The scenario at MTR Stage and efforts taken were already considered in the TR report.	
	We also request you to consider and assess on the level of private sector involvement in proliferation of EE appliances and EE buildings		
17	We would also request you to consider and assess the stakeholder engagements and usage of PSC forum for effective stakeholder management.	Integrated	
18	The approach of engaging with a public educational institute to sustain the capacity building, may be further elaborated / assessed in terms of its innovativeness and impact on the overall CB activities.	Elaborated.	
19	Recommendation on the implementation - what could have been better by the country and UNEP.	Included.	
19	As we understand it, there were plans for usage of labelled only products. We would like to request you to assess this aspect.	Assessed and included.	
20	Further there was an incentive mechanism for the importers. We would like to request if there was systematic outreach to these importers to encourage them to move to EE appliances. If there were none possible reasons and recommendations around that.	Elaborated the details.	
20	In consideration of the fixed time frame for the project execution, was there a targeted outreach plan to popularize the products / outputs to ensure achievement of the outcomes	Elaborated and explained.	
20	We would like to request an assessment if the regular stakeholder engagements with HDC could have addressed the issues captured here?	Resolved and updated.	

	The level of engagement between MECCT and HDC, its effectiveness and areas of improvement, etc.		
	If capacity was an issue, whether the project tried to bridge these specific issues (commercial buildings)		
24	We would like to check you have reached out to schedule additional details to collect required details. Further, if request with a specific list of questions / documents, we would be	The best possible details were gathered and provided. The report includes them.	
26	happy to facilitate with the PMU The assessment shall also cover the effectiveness of the changes made in the MTR in achieving the project objectives.	All covered.	
31	It is observed the same toc as in MTR has been used but dropping one in Comp 1 and 3 and added one in Component 2. In Comp 1 "Output 1.2 is dropped - Energy Management system and energy rating are produced", in Comp 3 - " 3.3. Training programs on developing and promoting energy efficient appliances are executed". Whereas in Comp 2 "output 2.4 is added".	The TOC at TR stage covered the recent scenario at the time of project completion. The changes were made to capture the identified assumptions needed to translate the outputs to outcomes.	
38	We would like to understand this logic beyond this change. We would like to understand better to learn for other projects. At the same time, we would request to compare with any MTR recommendations on this aspect and possible execution of those.	UNEP and other UN Agencies always have various GEF interventions going on at national and regional level across the Globe. Learning from these GEF interventions are always useful to incorporate in projects like LCEI where the EA has no or limited experience of large-scale project implementation on EE or other mitigation subjects. Considering this, it is important for UNEP to facilitate increased sharing of knowledge and learnings from other	

		programs. This may help in building the capacity of EA and in-country stakeholders.	
		All the major recommendations in MTR have been considered while preparing the TR report.	
46	Linking with the earlier suggestions, an assessment of initial gestation period to assess and absorb the project activities to deliver the outcomes/outputs shall be made and lessons learnt / recommendations may kindly be noted.	Incorporated.	
	Further, availability of PMC to ensure completion of these activities is essential. With COVID and multiple extensions and with the lack of possible PMC contribution by the Govt, things could not be completed. An assessment of this could also be added appropriately.		
51	We would like to review and comment on the timeliness of the reporting, organizing of meetings, evidence of adaptive management, risk management practices, implementation of agreed measures, etc.	Elaborated.	
67	Any recommendations on the PMU / execution modality for instances where the in-country expertise is not sufficient.	It is already covered in different forms under the current set of the recommendations.	
67	As we understand it, there were plans for usage of labelled only products. We would like to request you to assess this aspect.	Integrated and further elaborated the recommendation.	
	Further there was an incentive mechanism for the importers.		
	We would like to request if there was systematic outreach to these importers to encourage them to move to EE appliances. If there was none possible reasons and recommendations around that.		
70	Details of meeting with UNEP Task Manager and his team shall also be kindly added at an appropriate place.	Included.	

78	It may be kindly recorded that at the	All included.	
, ,	start of the TR work, list of documents	7 th moraded.	
	shared by UNEP team.		
91	Kindly confirm if the report addresses	Addressed.	
91		Addressed.	
16.0.57	the questions in TOR.	Addressed	
16 & 57	The Report has said that "PMU was	Addressed.	
	managed by a dynamic team of young		
	professionals who were in the phase		
	of their learning curve than in a		
	capacity to deliver the project outputs		
	(paragraph 18 and 165)". This was		
	from Mid-term review (MTR) report. In		
	that MTR report there is also		
	mentioning of the poor performance		
	monitoring and evaluation from UNEP.		
	MECCT does not see emphasis on this		
	in the TR or even in paragraph 20. The		
	whole shortcoming and issues were		
	put on Maldivian side especially on the		
	PMU. Hence, we don't see the		
	significance of highlighting the		
	limitations of one party in the Report.		
17 & 60	Additional Lesson to be added - The	Added the additional	
	MECCT team not only did activities	lesson learned.	
	stated in project document they have		
	been activity seeking opportunities to		
	partner with various organization to		
	achieve the project objectives. Such as		
	conducting the first Energy Audit		
	Certification course through the		
	Association of Energy Engineers.		
	Other such initiative is capacity		
	building arrangements that was done		
	during the early years of the project		
	where the team secured partnership		
	with Energy Efficiency Services		
	Limited (EESL) to conduct tailor made		
	course for standards and labelling		
	program. This was one of the key		
	sustainable capacity building		
	activities organized by the project		
	team which led to the successful		
	implementation of the Hakthari		
	Program.		
	1 3		

REVIEW FRAMEWORK / MATRIX 7.2

S. N.	Review Framework	Tasks	Remarks
1	Desk Review	 Relevant background documentation. Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget. Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc. Project deliverables (e.g., publications, assessments etc). Mid-Term Review or Mid-Term Review report of the project. Reviews of similar projects 	A detailed desk review was conducted before the field visit and before conducting the interviews.
2.	Interviews (individual or in groups)	 UNEP Task Manager (TM) Project Manager (PM) Project management team. Project partners, including relevant Ministries and Departments of the Government responsible for EE of appliances and buildings, as well as the university. Relevant resource persons. Representatives from civil society and specialist groups (such as women, and trade associations etc). 	Interviews conducted with key stakeholders and the details incorporated in the TR Report.
3.	Field visits	Visit to Maldives	A weeklong field visit was conducted to Maldives.
4.	Tools Used for the Review	 Review Criteria Review Ratings Table Inception Report Structure and Contents Main Review Report Structure and Contents Use of Theory of Change in Project Reviews Financial Tables In Report Template Presenting Recommendations and Lesson Learned Important note on report formatting and layout 	Tools as provided in the documents shared by UNEP.

7.3 PEOPLE CONSULTED DURING THE REVIEW

Organization	Name	Position	Role in the project	Gender
UNEP	Sudhir Sharma	GEF Task Manager, Climate Change Mitigation Program Management Officer, Energy and Climate, Asia Pacific Office	Project Manager	Male
UNEP	Manoj Muthumanickam	Project Specialist, GEF - Climate Change Mitigation Unit, UNEP	Day to day coordination with the Consultant and the Project team.	Male
MECCT	Mohamed Inaz	Project Technical Coordinator, MECCT	Team Lead	Male
MECCT	Ahmed Waheed	Project Director, MECCT	Project Director	Male
MECCT	Fathimath Raufa Mossa,	Program Analyst, MECCT	Project Analyst	Female
MNPHI	Zeeniya Ahmed Hameed	Permeant Secretary, Ministry of National Planning, Housing, and Infrastructure	Key decision- making stakeholder representing the MNPHI	Female
MNPHI	Mohamed Ali	State Minister, Ministry of National Planning, Housing, and Infrastructure	Minister, MNPHI, Government of Maldives	Male
MECCT	Shara Mauroof Ahmed	Energy Efficiency Division, MECCT	Standards and Labeling Officer	Female
MECCT	Aminath Seeza	Assistant Director, MECCT	Standards and Labeling Specialist	Male
Housing Development Cooperation (HDC) - URBANCO	Nazaha Faisal	Interior Designer, URBANCO	Building Code Implementation	Female
Housing Development Cooperation (HDC) - URBANCO	Ismail Shan Rasheed	Director, URBANCO	Building Code Implementation	Male
Maldives National University (MNU)	Abdulla Afeef	Senior Lecturer, MNU	Energy Audit and Energy Efficiency Course coordinator for Undergraduate and postgraduate students	Male

Organization	Name	Position	Role in the project	Gender
Maldives National University (MNU)	Ibrahim Nadheem	Head of Architecture Department, MNU	Energy Audit and Energy Efficiency Course coordinator for Undergraduate and postgraduate students	Male
Maldives Custom Services (MCS)	Ali Zubair	SP, MCS	Custom Officer	Male
Maldives Custom Services (MCS)	Adam Shafeeg,	DGS, MCS	Custom Officer	Male
Scout Association of Maldives (SAM)	Hussain Mohamed Haneef	Deputy, SAM	Scouts Association for generating awareness among school children	Male
Scout Association of Maldives (SAM)	Mariyam Laiza	Commissioner for Programs, SAM	Scouts Association for generating awareness among school children	Female
Scout Association of Maldives (SAM)	Mohamed Azan	Environment Analyst, SAM	Scouts Association for generating awareness among school children	Male
PwC	Rajeev Ralhan	Partner, PwC	Consultant for LCEI Project	Male
Ozone Until, MECCT	Miruza Mohamed	Director, MECCT	Ozone Unit Head	Female
EPOC Pvt. Ltd.	Hussain Rasheed	EPOC	Local ESCO	Male
UTILICO Pvt. Ltd.	Ali Ahsan	Managing Director, Utilico	Building Sector Project Implementation	Male

7.4 KEY DOCUMENTS CONSULTED

S. N.	Description	Source
1	Project Implementation Report (PIR) – FY 2016	UNE-Task Manager
2	Project Implementation Report (PIR) – FY 2017	UNE-Task Manager
3	Project Implementation Report (PIR) – FY 2018	UNE-Task Manager
4	Project Implementation Report (PIR) – FY 2019	UNE-Task Manager
5	Project Implementation Report (PIR) – FY 2020	UNE-Task Manager
6	Project Implementation Report (PIR) – FY 2021	UNE-Task Manager
7	Project Implementation Report (PIR) – FY 2022	UNE-Task Manager
8	Project Cooperation Agreement between UNE and ME	UNE-Task Manager
9	GEF CEO Endorsement Document	UNE-Task Manager
10	Project Co-Financing – Overall Report	UNE-Task manager /
		LCEI-PM
11	LCEI Final Report	UNE-Task Manager
12	LCEI Mid Term Review (MTR) Report	UNE-Task Manager
13	Report – Study Tour on Energy Efficiency Labelling	UNE-Task Manager
14	Terms of Reference – Terminal Review of LCEI Project	UNE-Task Manager
15	NDC Implementation Plan, Maldives	LCEI-PM
15	Update on NDCs, Maldives	LCEI-PM
16	Hakathari Label Design Details	LCEI-PM
17	Training Reports	UNE-Task Manager
18	Study Reports	UNE-Task Manager
19	EPI Monitoring Database	UNE-Task Manager
20	Workshop and Meeting Reports	UNE-Task Manager
21	Building Assessment Database	UNE-Task Manager
22	Public Advertisement Details	UNE-Task Manager

7.5 **REVIEW ITINERARY**

Terminal Review Meetings and Mission Schedule (14th May 2023 to 18th May 2023)

A. Pre-Mission Meetings

Date & Time	Meeting/Activity	Location	Participants
27 March 2023 02:00 to 03:00 pm	Meeting with UNEP's Project Specialist, GEF - Climate Change Mitigation Unit	Virtual	Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP: manojkumar.muthumanickam@un.org
05 April 2023 11:00 am to 12:00 pm	Meeting with LCEI Project Technical Coordinator & Project Specialist, GEF - Climate Change Mitigation Unit, UNEP	Virtual	 Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP: manojkumar.muthumanickam@un.org
03 May 2023 10.00 to 11.00 am	Meeting with LCEI Project Technical Coordinator & Project Specialist, GEF - Climate Change Mitigation Unit, UNEP	Virtual	 Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP: manojkumar.muthumanickam@un.org

B. Mission Meetings

Sunday, 14th May 2023

Time	Meeting/Activity	Location	Participants
10:00 to 11:00	Meeting with Project Director	MECCT	 Ahmed Waheed, Project Director, MECCT: ahmed.waheed@environment.gov.mv Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Fathimath Raufa Mossa, Program Analyst, MECCT: fathimath.raufa@environment.gov.mv
11:00 to 12:00	Ministry of National Planning, Housing, and Infrastructure (MNPHI)	MNPHI	 Fathimath Shaufa, Director, MNPHI: fathimath.shaufa@planning.gov.mv Zeeniya Ahmed Hameed, Permeant Secretary, MNPHI: zeeniya.ahmed@planning.gov.mv Mohamed Ali, State Minister, MNPHI: mohamed.ali@planning.gov.mv

			 Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Fathimath Raufa Mossa, Program Analyst, MECCT: fathimath.raufa@environment.gov.mv
13:00 to 14:00	Meeting with Energy Efficiency Section	MECCT	Shara Mauroof Ahmed, S&L Officer, MECCT: shara.mauroof@environment.gov.mv Aminath Seeza, Assistant Director, MECCT: aminath.seeza@environment.gov.mv Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Fathimath Raufa Mossa, Program Analyst, MECCT: fathimath.raufa@environment.gov.mv

Monday, 15th May 2023

Time	Meeting/Activity	Location	Participants
10:00 to 11:00	Housing Development Cooperation (HDC) - URBANCO	MECCT	 Nazaha Faisal, Interior Designer, URBANCO: <u>nazaha@urbanco.com.mv</u> Ismail Shan Rasheed, Director, URBANCO: <u>shan@urbanco.com.mv</u> Mohamed Inaz, Project Technical Coordinator, MECCT: <u>mohamed.inaz@environment.gov.mv</u>
11:00 to 12:00	Maldives National University	MECCT	 Abdulla Afeef, Senior Lecturer, MNU: abdulla.afeef@mnu.edu.mv Ibrahim Nadheem, Head of Architecture Department, MNU:
13:00 to 14:00	Maldives Islamic Bank (MIB)	MECCT	 Nahid Idrees, Unit Head – Retail, MIB: nahid.idrees@mib.com.mv Moosa Hoodh Ibrahim, Officer – CAD, MIB: moosa.hoodh@mib.com.mv Mohamed Inaz, Project Technical Coordinator, MECCT: mohamed.inaz@environment.gov.mv Fathimath Raufa Mossa, Program Analyst, MECCT: fathimath.raufa@environment.gov.mv

Time	Meeting/Activity	Location	Participants
09:00 to	Maldives Customs	MECCT	Ali Zubair, SP, MCS:
10:00	Service (MCS)		ali.zubair@customs.gov.mv
			Adam Shafeeg, DGS, MCS:
			adam.shafeeg@customs.gov.mv
			Fathimath Raufa Mossa, Program
			Analyst, MECCT:
			<u>fathimath.raufa@environment.gov.mv</u>
10:00 to	State Trading	STO Home	Aminath Shurufa, Planning Manager,
11:00	Organization (STO)	Improvement	STO; <u>info@sto.mv</u>
		Store	
11:00 to	Ranfaun Private	Ranfaun	Mohamed Fathih, Managing Director,
12:00	Limited	Store	Ranfaun Pvt Ltd: <u>info@ranfaun.com</u>

Wednesday, 17th May 2023

Time	Meeting/Activity	Location	Participants
10:00 to	Maldives Girl Guide	MECCT	Fathimath Raufa Mossa, Program
11:00	Association		Analyst, MECCT:
			<u>fathimath.raufa@environment.gov.mv</u>
			Exco Training, MGGA
11:00 to	The Scout Association	MECCT	Hussain Mohamed Haneef, Deputy,
12:00	of Maldives (SAM)		SAM
			Mariyam Laiza, Commissioner for
			Programs, SAM
			Mohamed Azan, Environment Analyst,
			SAM
			Fathimath Raufa Mossa, Program
			Analyst, MECCT:
			fathimath.raufa@environment.gov.mv

Thursday 18th May 2023

Time Meeting/Activity Location Participants				
_			Participants Participants	
10:00 to	PwC India / Riyan	Virtual	Rajeev Ralhan, Partner, PwC India:	
10:30	Private Limited		<u>rajeev.ralhan@pwc.com</u>	
			Manish Soni, Director, PwC India:	
			manish.soni@pwc.com	
10:30 to	Meeting with National	MECCT	Miruza Mohamed, Director, MECCT:	
10:45	Ozone Unit		miruza.mohamed@environment.gov.mv	
10:45 to	EPOC Private Limited	Virtual	Hussain Rasheed, EPOC:	
11:00			hussain.rasheed@epoch.associates	
			Fathmath Ihudha Amir, EPOC:	
			ihudha.amir@epoch.associates	
11:00 to	Utilico Private Limited	Virtual	Ali Ahsan, Managing Director, Utilico:	
11:15			aahsan@anser.com.au	

13:00 to	Meeting with Project	MECCT	Ahmed Waheed, Project Director,
13:30	Director and ex PMU -		MECCT:
	Wrap-up		ahmed.waheed@environment.gov.mv
			Mohamed Inaz, Project Technical
			Coordinator, MECCT:
			mohamed.inaz@environment.gov.mv
			Fathimath Raufa Mossa, Program
			Analyst, MECCT:
			<u>fathimath.raufa@environment.gov.mv</u>

C. Post-Mission Meetings

Date & Time	Meeting/Activity	Location	Participants
23 May 2023 05:00 to 06:00 pm	Meeting with Project Specialist, GEF - Climate Change Mitigation Unit, UNEP	Virtual	Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP: manojkumar.muthumanickam@un.org
04 August 2023 10:00 am to 12:00 pm	Meeting with GEF Task Manager, Climate Change Mitigation Program Management Officer, Energy and Climate, Asia Pacific Office UNEP, and Project Specialist, GEF - Climate Change Mitigation Unit, UNEP	UN Office New Delhi	 Sudhir Sharma, GEF Task Manager, Climate Change Mitigation Program Management Officer, Energy and Climate, Asia Pacific Office UNEP: sharma66@un.org Manoj Muthumanickam, Project Specialist, GEF - Climate Change Mitigation Unit, UNEP: manojkumar.muthumanickam@un.org

7.6 PROJECT BUDGET AND EXPENDITURES

Components	Planned Budget in USD (As provided in ToR)	Expenditure in USD (As per final report submitted)
Component – 1	694,539	669,278
Component – 2	1,923,373	1,913,230
Component – 3	568,181	534,952
Component – 4	342,530	340,609
PMC	306,378	302,845
Total	3,835,000	3,760,914

COFINANCING:

- 1. Planned Co-Financing Budget of LCEI Project US\$ 34,455,835.00.
- 2. Total Co-Financing realized as on 30th June 2022 US\$ 38,360,869.00.

S. N.	Co-Finance Partner Name	Type of Co- Finance	Planned Total in USD	Cumulative Actual Total in USD
1.	Ministry of Environment, Climate Change and Technology (National Budget)	In-Kind	4,505,835.00	4,963,878.00
2.	Housing Development Cooperation	In-Kind	-	23,242,868.00
3.	Maldives National University	In-Kind	-	418,687.00
4.	Maldives Islamic Bank	In-Kind	-	1,005,000.00
5.	Co-financier 1: MECCT – National Agency (Partner: NRDC China)	In-Kind	4,000,000.00	4,000,000.00
6.	Co-financier 2: MECCT – National Agency (Partner: GIZ Germany)	In-Kind	4,000,000.00	4,000,000.00
7.	Co-financier 3: MECCT – National Agency (Partner: ADB)	In-Kind	400,000.00	230,435.00
8.	Co-financier 4: MECCT – National Agency (CEMC / CCTF)	In-Kind	500,000.00	500,000.00
9.	Co-financier 5: MEE-National Agency (Partner: OFID/Saudi Fund)	In-Kind	20,800,000.00	00.00
	TOTAL	-	34,455,835.00	38,360,869.00

7.7 FINANCIAL MANAGEMENT

Financial Management Table:

Fina	ncial Management Components:	Rating	Evidence/ Comments
1	. Adherence to UNEP's policies and procedures:	HS	
	evidence that indicates shortcomings in the project's adherence ¹⁰ NEP or donor policies, procedures, or rules	No	
2	2. Completeness of project financial information ¹¹ :		
	sion of key documents to the reviewer (based on the responses to below)	HS:HU	
A.	Co-financing and Project Cost's tables at design (by budget lines)	Yes	Detailed co-finance table was provided
B.	Revisions to the budget	Yes	Details about revision to the budget was provided
C.	All relevant project legal agreements (e.g. SSFA, PCA, ICA)	Yes	All legal documents were provided
D.	Proof of fund transfers	Yes	·
E.	Proof of co-financing (cash and in-kind)	Yes	
F.	A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level)	Yes	Summary report details were shared.
G.	Copies of any completed audits and management responses (where applicable)	Yes/No or N/A	
H.	Any other financial information that was required for this project (list):	Yes	
	B. Communication between Finance and Project Management		Provided
	Staff	HS	
	ect Manager and/or Task Manager's level of awareness of the ect's financial status.	HS	
	Management Officer's knowledge of project progress/status and disbursements are done.	HS	
Fund	of addressing and resolving financial management issues among Management Officer and Project Manager/Task Manager.	HS	
Proje prog	act/communication between by Fund Management Officer, ect Manager/Task Manager during the preparation of financial and ress reports.	HS	
Proje	ect Manager, Task Manager and Fund Management Officer onsiveness to financial requests during the review process	HS	
Over	all rating	HS	

 ¹⁰ If the review raises concerns over adherence with policies or standard procedures, a recommendation maybe given to cover the topic in an upcoming audit, or similar financial oversight exercise.
 11 See also document 'Criterion Rating Description' for reference.

COMMUNICATION AND OUTREACH TOOLS 7.8

None.

BRIEF CV OF THE REVIEWER 7.9



Mr. Dube has 35 years of experience working in clean energy & environment sectors, is leading IIEC's business in India and South Asian countries. He is working on clean energy and climate changerelated programs funded by international agencies like World Bank, UNEP, UNDP, GIZ, and British High Commission. Before joining IIEC, he has worked as Chief of Party for Partnership to Advance Clean Energy - Deployment (PACE-D) Technical Assistance Project (www.pace-d.com) of USAID in India. Mr. Dube established the

PACE-D Technical Assistance Program in India and developed the strategies for the effective implementation of the project. PACE-D is a 5-year program (2012-2017) with \$ 19.5 million funding support from USAID.

Mr. Dube has worked as Vice President for Emergent Ventures India Pvt. Ltd. (2010-2012) and Senior Program Manager with ICF International (2006-2010). Mr. Dube has extensive experience in working on large-scale energy efficiency programs including capacity building of the Indian Bureau of Energy Efficiency (BEE) for implementation of utility DSM programs, energy performance improvement in buildings and industry and appliance standards, and labeling program. Mr. Dube is a member of the Advisory Committees for Perform Achieve & Trade (PAT) Scheme and EE Finance Scheme of BEE in India. He is also an expert on energy sector regulatory issues and worked extensively with National and State Regulators in India. In the past, Mr. Dube has worked with IIEC in the capacity of Senior Program Manager (2001-2006). During this time, he managed several large energy efficiency and environment management projects funded by national and international agencies. He has served as Deputy Chief of Party for USAID-funded 'Water & Energy Nexus-II (WENEXA-II)' and 'Energy Conservation & Commercialization-II (ECO-II)' Projects in India and as Country Coordinator for Collaborative Labelling & Appliance Standard Program (CLASP).

Countries of work experience: Bangladesh, Bhutan, India, Jordan, Malaysia, Maldives, the Philippines, and Thailand.

7.10 REVIEW TORS

Terminal Review of the UNEP/GEF project "Strengthening Low Carbon Energy Island Strategies (LCEI)" and "GEF ID 4629"

Section 1: PROJECT BACKGROUND AND OVERVIEW

(This section describes what is to be reviewed. Key parameters are: project timeframe, funding envelope, results framework and geographic scope)

1. Project General Information

Table 1. Project Summary

Table 1. Project Summary			
UNEP Sub-programme:	EA 1b: Countries increasingly adopt and/or implement low greenhouse gas emission developmen strategies and invest in clean technologies.	Division/Branch:	Economy Division, Climate Mitigation, Energy and Climate Branch
Expected Accomplishment(s):		Programme of Work Output(s):	Subprogramme 1 Climate change (b) (i) Increase in the number of countries supported by UNEP that make progress in adopting and/or implementing low greenhouse gas emission development plans, strategies and/or policies 1b(ii) Increase in climate finance invested by countries or institutions for clean energy, energy efficiency and/or amount of decarbonized assets
SDG(s) and indicator(s)	7.3 By 2030, double the global rate of improvement in energy entire 7.3.1 Energy intensity measured in terms of primary energy GDP		ent in energy efficiency.
GEF Core Indicator Targets (identify these for projects approved prior to GEF-7 ¹²)	Direct GHG emission reductions totaling 120,222 t CO2-e		
Dates of previous project phases:		Status of future project ohases:	Not applicable

¹² This does not apply to Enabling Activities.

FROM THE PROJECT 'S PIR REPORT (use latest version):

Project Title:	Strengthening Low Carbon Energy Island Strategies (LCEI)			
Executing Agency:	Ministry of Environment Climate Change and Technology (MECCT), Maldives			
Project partners:	Not applicable	<u> </u>	7, 1	
Geographical Scope:	Country wide			
-	A 4 1 12			
Participating	Maldives			
Countries:	4629		051 5070 0700 4500	
GEF project ID:	4029	UMOJA number*13:	GFL-5070-2720-4F28 P1-33GFL-000596	
Focal Area(s):	Climate Change	GEF OP #:	5	
GEF Strategic	CC 2		August 18, 2014	
Priority/Objective:		GEF approval date*:	,	
UNEP approval date:	April 03 2015	Date of first	May 11, 2015	
		disbursement*:		
Actual start date ¹⁴ :	September 15, 2015	Planned duration:	48 months	
Intended completion	March 31, 2019	Actual or Expected	30 June 2022	
date*:		completion date:		
Project Type:	FSP	GEF Allocation*: 3,885,000		
PPG GEF cost*:	68,000	PPG co-financing*:	150,000	
Expected MSP/FSP	34,455,835	Total Cost*:	38,558,835	
Co-financing*:				
Mid-term Review/eval.	Mid 2017	Terminal Review	July 2022 (starting)	
(Planned date):		(planned date):		
Mid-term Review/eval.	April 2018 (started)	No. of revisions*:	5	
(Actual date):	O-1-h 01 0001		D	
Date of last Steering	October 21, 2021	Date of last Revision*:	December 31, 2021	
Committee meeting: Disbursement as of 30	2,458,328	Date of planned	December 31, 2022	
June 2021*:	Z,400,320	Date of planned financial closure*:	December 31, 2022	
	June 30, 2022	Actual expenditures	1,972,471.42	
Date of planned	Julic 00, 2022	reported as of 30 June	1,2,2,7,1.72	
completion ¹⁵ *:		2021 ¹⁶ :		
Total co-financing	26,746,300	Actual expenditures	1,972,469	
realized as of 30 June	, ,	entered in Umoja as of		
2021:		31 March [2022] *:		
Leveraged financing: 17	Not applicable			

2. Project Rationale¹⁸

The Republic of the Maldives is located in the Indian Ocean, where some 300,000 people enjoy a chain of 26 natural atolls - 1,192 islands, over 190 inhabited - stretching 860 km. Tourism and fisheries make up 40% of GDP, the majority of exports and employment, both of which are energy intensive. The country relies almost entirely on imported fossil fuels for its energy needs, with diesel accounting for 82% of primary energy demand in 2009. Universal electricity access is provided via STELCO (including for Malé, the capital city), via FENAKA (consolidating six utilities across the country), and via Island Development Committees on the

¹³ Fields with an * sign (in yellow) should be filled by the Fund Management Officer.

¹⁴ Only if different from first disbursement date, e.g., in cases were a long time elapsed between first disbursement and recruitment of project manager.

¹⁵ If there was a "Completion Revision" please use the date of the revision.

¹⁶ Information to be provided by Executing Agency/Task Manager.

¹⁷ See above note on co-financing.

¹⁸ Taken from the project document.

smaller inhabited islands, with resort islands operating their own utility systems. The Maldives is also highly vulnerable to climate change, with 80% of the country being less than one meter above sea level.

- 19. The government of the Maldives is taking steps on the international and national stage to move towards a carbon-neutral future. Internationally, it is speaking up at various forums, and building partnerships. It has declared a goal to be carbon-neutral by 2020, and is collaborating with various development partners, national stakeholders, and others to achieve this. The government's approach is reflected in the project objective, to "mainstream energy efficiency measures into housing policies, guidelines, standards and building practices in the Maldives and to achieve a substantial reduction of GHG emissions as a result of improved buildings and building management practices and to leverage substantial investment in activities leading to increased energy efficiency in the Maldives." Further, one benefit of reducing the electricity demand will be to make it possible to delay investment in an expansion of the electricity supply that would otherwise be required to satisfy the projected annual increase in demand. This will be achieved by strengthening the building sector to address energy efficiency issues and promoting expansion of investment in energy efficiency technologies/design in the housing, public and tourism building sub-sectors.
- 20. To date, attention has been focused on renewable energy; for example, the Maldives is one of the eight pilot countries under the Scaling up Renewable Energy Project (SREP). Energy efficiency is a gap that is now being addressed, as it can provide even better environmental, social, and economic returns than renewables, but also requires more complex and diverse interventions.
- 21. Despite the popular image of idyllic white-sand islands, the Maldives is home to one of the most densely populated cities on earth, with 35% of Maldivians living on Malé, at 18,000 people/km2. Over 90% is covered with tightly packed multi-story buildings, and Malé also has the highest per capita utility electricity consumption in the Maldives. As a result, over 70% of all electrical energy is used on Malé, making it the natural choice for an intervention on electrical energy efficiency. Further, a number of substantial building projects have been scheduled for the medium term, providing a great opportunity to improve building stock and avoid 'lock in' of high consumption rates. Therefore, the building sector has been chosen for this intervention, as it is not currently being addressed by other activities, has a high potential for improvement, and is undergoing substantial development.
- 22. Currently, the building sector is generally under-investing in energy efficiency and other low carbon energy building technologies due to diffused responsibility for energy consumption over the lifetime of any given building. For example, there are no nationally coordinated efforts to promote energy efficient building and municipal technologies, such as efficient lighting. Heavy subsidies on electricity use mean that households do not value energy consumption as it is not a burden to them directly, although it is a strain on the government finances and is diverting funds from other needs. Building design, and building material and equipment purchasing, reflect this paradigm, with buildings observed as high thermal mass with minimal shading, instead relying on wide-spread air-conditioner use. Further, with Malé as the capital, this influences the perception of advancement in other islands, and new construction in the inhabited islands often mimics the approach taken on Malé.
- 23. GHG emissions from buildings result not only from energy use but also from Ozone Depleting Substances (ODS) which can have high Greenhouse Warming Potential (GWP). Leakage of ODS from equipment during manufacturing, installation, operation, and recovery leads directly to emissions of greenhouse gases, although these are covered under the Montreal Protocol (not the Kyoto Protocol). Good building material and design and relevant policy measures could have the effect of reducing both indirect emissions (through energy efficiency gains) and direct emissions (by use of low-GWP refrigerants). Under the Montreal Protocol, countries are phasing out hydrochlorofluorocarbons (HCFCs) through approved HCFC Phase-out Management Plans (HPMP). This provides an opportunity to select non-HCFC, low-GWP refrigerants and embrace energy efficiency in full measure to reap the benefits of ozone layer protection as well as climate change. Energy efficiency standards integrated with the standards for non-HCFC, low-GWP refrigerant can deliver these twin benefits, in RHVAC as well as in selecting insulation and foams (which can have these gases used as blowing agents).

3. Project Results Framework

- [Present the project objective(s), components, outputs, outcomes, and long-lasting impacts, as per the 24. Project Document (i.e., the results framework). Include the Theory of Change diagram, where available. Use tables as appropriate.]
- 25. The revised Project results framework suggested during the MTR and later updated by Project Steering Committee is given below:

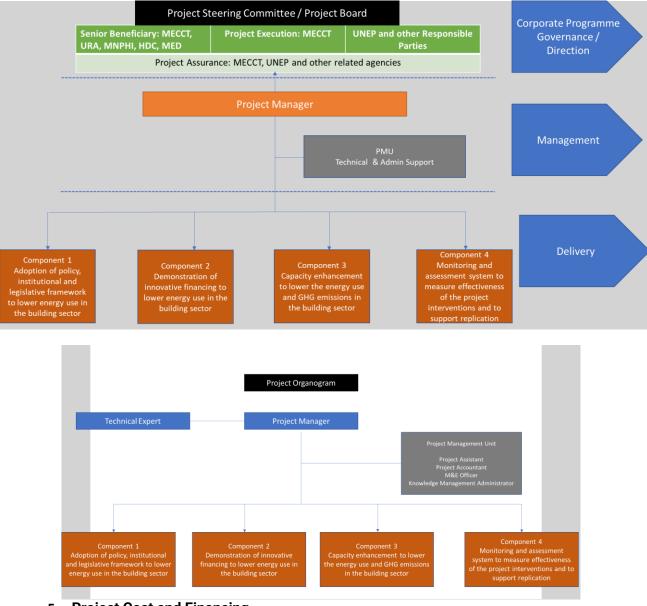
Components/Outcomes	Outputs	Activities
C1. Adoption of policy,	O1.1. Energy efficiency requirements are incorporated in the Maldives' building code	A1.1.1. Study and identify measures that can help to lower energy consumption through climatically suited building design and retrofitting of existing buildings. A1.1.2. Propose guidelines for cost-effective and practical energy efficiency improvement in new and existing buildings in the context of Maldives. A1.1.3. Conduct workshop for building sector stakeholders to validate guidelines. A1.1.4. Using the guidelines, incorporate energy efficiency requirements in Maldives' building code. A1.1.5: Development of certification scheme for Hulhumale' in collaboration with Housing Development Cooperation (HDC).
institutional and legislative framework to lower energy use in the building sector.	O1.2. Energy labelling program developed, and implementation initiated.	A1.2.1. Conduct market assessment and consumer awareness study to develop baseline for appliances energy efficiency and understand consumer behaviour patterns. A1.2.2. Develop labelling program and propose procedure to implement and monitor the implementation of the energy labelling program. A1.2.3. Process and procedures for implementing the labelling scheme integrated into respective authorities' mandate. A1.2.4: Initiate voluntary labelling scheme implementation. A1.2.5: Update government procurement policy to incorporate use of life cycle costing to promote procurement of energy efficient appliances in public buildings.
C2. Demonstration of innovative financing to lower energy use in the building sector.	O2.1. Innovative financing is demonstrated for energy efficient design of buildings.	A2.1.1. Assess the existing environment for financing new buildings. A.2.1.2. Develop innovative financing schemes to incentives construction of new energy efficient buildings. A2.1.3. Provide technical assistance to design energy efficient building and attain building design certification. A2.1.4. Provide financial support to implement energy efficiency measures in identified building(s) based on innovative financing options identified.

	T	A O O d
	O2.2. Innovative financing is demonstrated for energy efficiency retrofits in buildings.	A.2.2.1. Assess the existing financial environment for financing building retrofits. A.2.2.2. Select public building(s) and conduct investment-grade audits to identify costeffective energy efficiency improvements. A.2.2.3. Develop innovative financing schemes to incentivize retrofits in buildings. A.2.2.4: Implement the cost-effective efficiency measures through innovative financing schemes and validate the savings accrued from the retrofits.
	O2.3. Innovative financing is demonstrated for high-efficiency appliances.	A2.3.1. Assess the existing environment for financing appliances used in buildings. A2.3.2. Identify key partners and develop an innovative funding mechanism that supports the purchase of high energy efficiency appliances and recovers the capital through operational energy cost savings. A2.3.3. Implement a pilot funding mechanism for energy efficiency appliances and provide support to monitor and fine tune the business model
	O2.4: Scaling up financing for energy efficiency appliances and buildings	A.2.4.1: Based on the results, develop a full- scale system that allows the financing of high efficiency appliances and building energy retrofits.
C3. Capacity enhancement to lower the energy use and GHG emissions in the building sector.	O3.1. Educational and training programs focused on climatically suited low-energy building design are developed.	A3.1.1. Develop and support academic programs on low-energy building design in the tropics in collaboration with educational establishments that offer degree programs related to building construction. A3.1.2. Develop and support training programs on low-energy building design in the tropics for professionals (developers, architects, engineers, government officials) in collaboration with Ministry of Housing and Infrastructure and MEA. A3.1.3. Develop and support training programs on financing low-energy buildings for banks and financial institutions that provide long-term building loans.
	O3.2. Training programs focused on energy efficiency retrofits of buildings are developed.	A3.2.1. Develop and support training programs on conducting investment-grade energy audits of buildings A3.2.2. Develop and support training programs for buildings and facilities managers on adopting energy management system for buildings.
	O3.3. Training programs on energy efficient appliances are developed.	A.3.3.1. Build institutional capacity on program design, institutional mechanism, consumer awareness and M&V related to standards and labelling program. A.3.3.2. Design and conduct training programs for importers and vendors of

		building appliances on the relevance of energy performance labelling of appliances. A.3.3.3. Design and conduct training program for appliance life cycle cost procurement procedures.
C4. Monitoring and assessment system to measure effectiveness of the project interventions and to support replication.	O4.1. A monitoring and assessment system is in place to measure effectiveness of project implementation.	A4.1.1. Analyze the energy use in different types of buildings (residential, commercial, public, hotels/guesthouses, mixed purpose). A4.1.2. Energy use monitoring system is developed for buildings and tested in public building(s). A4.1.3: Develop database of energy use in existing buildings and appliances and analyze the annual trend to assess the impact of project interventions. A4.1.4: Based on the results, guidelines are prepared to promote energy use monitoring in buildings and receive data for updating database on energy use in buildings. A4.1.5: Track the impact of project interventions on the carbon emissions from the building sector.
	O4.2. Awareness and educational programs are developed to sensitize different stakeholders regarding building energy efficiency and the disseminate good practices for widespread replication.	A.4.2.1. Programs developed for awareness raising of the different building sector stakeholders and dissemination through various public channels. A4.2.2: Extracurricular activities and awareness programs developed for youth to inculcate behavioural and lifestyle changes to achieve low carbon development. A4.2.3: Document experience and good practices from the project for the benefit of other small island developing states.

4. Executing Arrangements

- The organizational structure for the implementation of this project builds into previous good practices of project implementation through existing partnership arrangements with Ministry of Environment, Climate Change and Technology (MECCT) and its related implementing partner entities to achieve, not only the described project outcomes, but also to support the ongoing capacity building process within the government to further enhance its implementation processes.
- UNEP is the GEF implementing agency (IA), coordinating all the reporting requirements, performing M&E and providing direction through the steering committee to achieve the project results framework.
- 28. MEECT, through its Climate Change Department, is the executing agency for the actual execution of the project components in the country. The Project Management Unit (PMU) based at MEECT builds further linkages to the on-going activities within MEECT. The Project team consist of a full time Project Manager, a full time Monitor and Evaluation Officer, a full time Project Accountant, a full time Project Assistant, a full time Knowledge Management Administrator, and the support of an international expert on project output quality assurance.
- 29. The PMU is responsible for reporting on a quarterly basis through the required reports to UNEP on the achievement of the project goals, as well as on the utilization of the project resources.



5. Project Cost and Financing

- [Present total project budget at design, broken down per component and per funding source (i.e. GEF grant and any co-financing. Use tables as appropriate. Present most recent figures on expenditure.]
- The planned project budget at approval was 38,340,835 USD. GEF grant allocation as per project components is presented in the below table. Co-financing from UNEP and the Maldivian government was estimated to be 34,455,835 USD, of which 100 % was estimated to be based on in-kind allocation.

Project Components	GEF Financing (\$)	Co-financing (\$)
1. Establish a monitoring and assessment system to create an energy use baseline and to track changes in energy use in buildings	245,888	450,000
2. Development of programmes through existing financial institutions focused on financing energy efficiency measures in new and existing buildings and establish a financing programme that provides	964,208	1,000,000

Total Project costs	3,885,000	34,455,835
Project Management Cost	226,829	533,484
of low efficiency appliances.		
development of processes to reduce the purchasing		
8. Energy labels and standards for appliances and	192,325	574,000
efficiency.		
implementation for legislation on building energy		
7. Development and adoption of a phased	279,275	648,351
management systems for government facilities.	21 1,005	000,000
6. Development and deployment of effective energy	214,309	550,000
efficient technology and measures.		
owners in making the decision to invest in energy		
public and financial sectors. Provision of public information to assist the general public and building		
5. Capacity building for the technical, business,	523,376	500,000
those measures.	F22 276	F00.000
efficiency and to access financing for implementing		
resorts and tourist facilities to improve energy		
analysis, determine cost effective measures for		
4. Through high level energy audits and their cost	257,975	700,000
buildings		
efficient design and technology in selected public		
3. Implement public demonstrations of good energy	980,815	29,500,000
energy efficiency appliances		
access to longer term finance to be provided only for		

32. Revised component wise budget and expenditure for a period up to March 2022 is as follows:

Components	Budget (in USD)	Expenditure till March 2022 (in USD)
Component 1	694,539	537,623
Component 2	1,923,373	454,389
Component 3	568,181	492,687
Component 4	342,530	223,601
PMC	306,378	264,169
Total	3,835,001	1,972,469

6. Implementation Issues

The following issues were identified and recommended by the MTR.

- The revision of the results framework to streamline the outputs and outcomes. Using the TOC approach, a more structured result framework was proposed by covering the three broad realms of project intervention in order to achieve the desired outcomes: generation and sharing of information and knowledge, development of institutional capacities, and testing of implementation strategies.
- The TOC should be used to streamline the large number of activities planned in the original results framework to focus on preparing and enabling the key drivers and equipping them with the necessary tools and approaches to scale up the pilot strategies that are proposed to be tested.
- Enhance the capacity of PMU to execute the project. The PMU would require support and reinforcement for the smooth execution of activities that involve complex processes and procedures of contracting and funds disbursal. This can be fulfilled by engaging an experienced international expert from the region with knowledge of energy efficiency in the building sector and good project management skills.

The issue identified in PIRs post MTR.

Maldives went through a change in political leadership in 2018 impacted the speed of work due to slowing down of approvals, specially this affected the MOU with Housing Development Corporation (HDC) with whom the major demonstration activity was planned in the revised project framework. The

- challenges of how to manage the political leadership change is critical to all such projects in ensuring timely implementation and ownership. The Covid Pandemic affected the project activities starting March 2020 which affected, both, the travel of international experts a well as meetings within country. This also affected the focus of the government as addressing Covid Pandemic required attention of the whole government plus allocation of government resources.
- The government procurement process and budget management add to the slowness of approval. This has to be addressed for the development partner funded projects as there is an additional layer of scrutiny. This significantly affected the delivery of project timelines.

Section 2. OBJECTIVE AND SCOPE OF THE REVIEW

(Apart from section 9, where you could insert up to 3 strategic questions that are in addition to the review criteria, this section is standard and does not need to be revised for each project)

7. Objective of the Review

In line with the UNEP Evaluation Policy¹⁹ and the UNEP Programme Manual²⁰, the Terminal Review (TR) 33. is undertaken at operational completion of the project to assess project performance (in terms of relevance, effectiveness, and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The Review has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and Government of Maldives. Therefore, the Review will identify lessons of operational relevance for future project formulation and implementation.

8. Key Review principles

- Review findings and judgements will be based on sound evidence and analysis, clearly documented in 34. the Review Report. Information will be triangulated (i.e., verified from different sources) as far as possible, and when verification is not possible, a single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.
- The "Why?" Question. As this is a Terminal Review and a follow-up project is likely in view of the NDC 35. targets of country as well as Net Zero Strategy, particular attention will be given to learning from the experience. Therefore, the "why?" question should be at the front of the consultant(s)' minds all through the review exercise and is supported by the use of a theory of change approach. This means that the consultant(s) need to go beyond the assessment of "what" the project performance was and make a serious effort to provide a deeper understanding of "why" the performance was as it was (i.e., what contributed to the achievement of the project's results). This should provide the basis for the lessons that can be drawn from the project.

Attribution, Contribution and Credible Association: In order to attribute any outcomes and impacts to a project intervention, one needs to consider the difference between what has happened with, and what would have happened without, the project (i.e., take account of changes over time and between contexts in order to isolate the effects of an intervention). This requires appropriate baseline data and the identification of a relevant counterfactual, both of which are frequently not available for reviews. Establishing the contribution made by a project in a complex change process relies heavily on prior intentionality (e.g., approved project design documentation, logical framework) and the articulation of causality (e.g., narrative and/or illustration of the Theory of Change). Robust evidence that a project was delivered as designed and that the expected causal pathways developed supports claims of contribution and this is strengthened where an alternative theory of change can be excluded. A credible association between the implementation of a project and observed positive effects can be made where a strong causal narrative, although not explicitly articulated, can be inferred by the chronological sequence of events, active involvement of key actors and engagement in critical processes.

¹⁹ https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies

²⁰ https://wecollaborate.unep.org

Communicating Review Results. A key aim of the Review is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the review process and in the communication of review findings and key lessons. Clear and concise writing is required on all review deliverables. Draft and final versions of the main Review Report will be shared with key stakeholders by the Task Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The consultant will plan with the Task Manager which audiences to target and the easiest and clearest way to communicate the key review findings and lessons to them. This may include some, or all, of the following: a webinar, conference calls with relevant stakeholders, the preparation of a review brief or interactive presentation.

9. Key Strategic Questions

- In addition to the review criteria outlined in Section 10 below, the Review will address the strategic questions²¹ listed below(no more than 3 questions are recommended). These are questions of interest to UNEP and to which the project is believed to be able to make a substantive contribution. Also included are five questions that are required when reporting in the GEF Portal and these must be addressed in the TR:
- Q1: What are the next set of measures, building on the project outputs and outcomes, that would enable the country to meet its NDC targets and Long-Term Net Zero Emission goals.
- Q2: What measures could be taken to more effective uptake and adoption of outputs by the stakeholders.
- Q2: (Where relevant) What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?
- 38. Address the questions required for the GEF Portal in the appropriate parts of the report and provide a summary of the findings in the Conclusions section of the report:
 - a) Under Monitoring and Reporting/Monitoring of Project Implementation:
- What was the performance at the project's-completion against Core Indicator Targets? (For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided²²).
 - b) Under Factors Affecting Performance/Stakeholder Participation and Cooperation:
- What were the progress, challenges, and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? (This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval).
 - Under Factors Affecting Performance/Responsiveness to Human Rights and Gender Equality: What were the completed gender-responsive measures and, if applicable, actual gender result areas? (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent)
 - d) <u>Under Factors Affecting Performance/Environmental and Social Safeguards:</u> What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latest PIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. (Any supporting documents gathered by the Consultant during this Review should be shared with the Task Manager for uploading in the GEF Portal).
 - <u>Under Factors Affecting Performance/Communication and Public Awareness:</u> What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g., website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive

²¹ The strategic questions should not duplicate questions that will be addressed under the standard review criteria described in section 10.

²² This does not apply to Enabling Activities

Management Actions? (This should be based on the documentation approved at CEO Endorsement/Approval).

10. Review Criteria

- 41. All review criteria will be rated on a six-point scale. Sections A-I below outline the scope of the review criteria. The set of review criteria are grouped in nine categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the availability of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance.
- 42. Annex 1 of these Terms of Reference provides a table with a list of various tools, templates and guidelines that can help Review Consultant(s) to follow a thorough review process that meets all of UNEP's needs.

A. Strategic Relevance

The Review will assess the extent to which the activity is suited to the priorities and policies of the donors, implementing regions/countries and the target beneficiaries. The Review will include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

i. Alignment to the UNEP's Medium-Term Strategy²³ (MTS), Programme of Work (POW) and Strategic Priorities

The Review should assess the project's alignment with the MTS and POW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW. UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building²⁴ (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology, and knowledge between developing countries.

ii. Alignment to Donor/GEF/Partner Strategic Priorities

Donor strategic priorities will vary across interventions. The Review will assess the extent to which the project is suited to, or responding to, donor priorities. In some cases, alignment with donor priorities may be a fundamental part of project design and grant approval processes while in others, for example, instances of 'softly earmarked' funding, such alignment may be more of an assumption that should be assessed.

iii. Relevance to Global, Regional, Sub-regional and National Environmental Priorities

The Review will assess the alignment of the project with global priorities such as the SDGs and Agenda 2030. The extent to which the intervention is suited, or responding to, the stated environmental concerns and needs of the countries, sub-regions or regions where it is being implemented will also be considered. Examples may include: UN Development Assistance Frameworks (UNDAF) or, national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc. Within this section consideration will be given to whether the needs of all beneficiary groups are being met and reflects the current policy priority to leave no-one behind.

²³ UNEP's Medium-Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents

²⁴ http://www.unep.fr/ozonaction/about/bsp.htm

iv. Complementarity with Relevant Existing Interventions/Coherence²⁵

An assessment will be made of how well the project, either at design stage or during the project inception or mobilization²⁶, took account of ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies within the same country, sector, or institution) that address similar needs of the same target groups. The Review will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include work within UNDAFs or One UN programming. Linkages with other interventions should be described and instances where UNEP's comparative advantage has been particularly well applied should be highlighted.

Factors affecting this criterion may include:

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven ness.

B. Quality of Project Design

43. The quality of project design is assessed using an agreed template during the review inception phase. Ratings are attributed to identified criteria and an overall Project Design Quality rating is established. The complete Project Design Quality template should be annexed in the Review Inception Report. Later, the overall Project Design Quality rating²⁷ should be entered in the final review ratings table (as item B) in the Main Review Report and a summary of the project's strengths and weaknesses at design stage should be included within the body of the Main Review Report.

Factors affecting this criterion may include (at the design stage):

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity

C. Nature of External Context

44. At review inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters, and political upheaval²⁸). This rating is entered in the final review ratings table as item C. Where a project has been rated as facing either an *Unfavourable* or *Highly Unfavourable* external operating context, <u>and/or</u> a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Review Consultant and Task Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Availability of Outputs²⁹

45. The Review will assess the project's success in producing the programmed outputs and making them available to the intended beneficiaries as well as its success in achieving milestones as per the project design document (ProDoc). Any <u>formal</u> modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the Theory of Change (TOC). In such

²⁵ This sub-category is consistent with the new criterion of 'Coherence' introduced by the OECD-DAC in 2019.

²⁶ A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

²⁷ In some instances, based on data collected during the review process, the assessment of the project's design quality may change from Inception Report to Main Review Report.

²⁸ Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team. From March 2020 this should include the effects of COVID-19.

²⁹ Outputs are the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities, and awareness of individuals or within institutions (UNEP, 2019).

cases a table should be provided showing the original and the reformulation of the outputs for transparency. The availability of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their provision. It is noted that emphasis is placed on the performance of those outputs that are most important to achieve outcomes. The Review will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs available and meeting expected quality standards.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision³⁰

ii. Achievement of Project Outcomes³¹

46. The achievement of project outcomes is assessed as performance against the outcomes as defined in the reconstructed³² Theory of Change. These are outcomes that are intended to be achieved by the end of the project timeframe and within the project's resource envelope. Emphasis is placed on the achievement of project outcomes that are most important for attaining intermediate states. As with outputs, a table can be used to show where substantive amendments to the formulation of project outcomes is necessary to allow for an assessment of performance. The Review should report evidence of attribution between UNEP's intervention and the project outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UNEP's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the project outcomes realized.

Factors affecting this criterion may include:

- Quality of project management and supervision
- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Communication and public awareness

iii. Likelihood of Impact

47. Based on the articulation of long-lasting effects in the reconstructed TOC (i.e., from project outcomes, via intermediate states, to impact), the Review will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states, or long-lasting impacts. The Evaluation Office's approach to the use of TOC in project reviews is outlined in a guidance note and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from project outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

48. The Review will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects (e.g., will vulnerable groups such as those living with disabilities and/or women and children, be disproportionally affected by the project?). Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental and Social Safeguards.

³⁰ For GEF funded projects 'project management and supervision' will refer to the project management performance of the Executing Agency and the technical backstopping provided by UNEP, as Implementing Agency.

³¹ Outcomes are the use (i.e., uptake, adoption, application) of an output by intended beneficiaries, observed as changes in institutions or behavior, attitude or condition (UNEP, 2019)

³² UNEP staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during a review will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a TOC will need to be constructed in the inception stage of the review.

- 49. The Review will consider the extent to which the project has played a <u>catalytic role³³ or has promoted scaling up and/or replication</u> as part of its Theory of Change (either explicitly as in a project with a demonstration component or implicitly as expressed in the drivers required to move to outcome levels) and as factors that are likely to contribute to greater or long-lasting impact.
- 50. Ultimately UNEP and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-lasting or broad-based changes. However, the Review will assess the likelihood of the project to make a substantive contribution to the long-lasting changes represented by the Sustainable Development Goals, and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s).

Factors affecting this criterion may include:

- Quality of Project Management and Supervision (including adaptive management)
- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness
- Communication and public awareness

E. Financial Management

51. Financial management will be assessed under three themes: adherence to UNEP's financial policies and procedures, completeness of financial information and communication between financial and project management staff. The Review will establish the actual spending across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output/component level and will be compared with the approved budget. The Review will verify the application of proper financial management standards and adherence to UNEP's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted. The Review will record where standard financial documentation is missing, inaccurate, incomplete, or unavailable in a timely manner. The Review will assess the level of communication between the Project Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the need for a responsive, adaptive management approach.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision

F. Efficiency

52. Under the efficiency criterion the Review will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution.

53. Focusing on the translation of inputs into outputs, *cost-effectiveness* is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. *Timeliness* refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The Review will also assess to what extent any project extension could have been

³³ The terms catalytic effect, scaling up and replication are inter-related and generally refer to extending the coverage or magnitude of the effects of a project. <u>Catalytic effect</u> is associated with triggering additional actions that are not directly funded by the project – these effects can be both concrete or less tangible, can be intentionally caused by the project or implied in the design and reflected in the TOC drivers, or can be unintentional and can rely on funding from another source or have no financial requirements. Scaling up and Replication require more intentionality for projects, or individual components and approaches, to be reproduced in other similar contexts. <u>Scaling up</u> suggests a substantive increase in the number of new beneficiaries reached/involved and may require adapted delivery mechanisms while <u>Replication</u> suggests the repetition of an approach or component at a similar scale but among different beneficiaries. Even with highly technical work, where scaling up or replication involves working with a new community, some consideration of the new context should take place and adjustments made as necessary.

avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The Review will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

- 54. The Review will give special attention to efforts made by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies, and complementarities³⁴ with other initiatives, programmes and projects etc. to increase project efficiency.
- 55. The factors underpinning the need for any project extensions will also be explored and discussed. Consultants should note that as management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to UNEP and Executing Agencies.

Factors affecting this criterion may include:

- Preparation and readiness (e.g. timeliness)
- Quality of project management and supervision
- Stakeholders' participation and cooperation

G. Monitoring and Reporting

56. The Review will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

i. Monitoring Design and Budgeting

57. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART³⁵ results towards the achievement of the project's outputs and outcomes, including at a level disaggregated by gender, marginalisation, or vulnerability, including those living with disabilities. In particular, the Review will assess the relevance and appropriateness of the project indicators as well as the methods used for tracking progress against them as part of conscious results-based management. The Review will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for Mid-Term and Terminal Review should be discussed, where applicable.

ii. Monitoring of Project Implementation

- 58. The Review will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards project objectives throughout the project implementation period. This assessment will include consideration of whether the project gathered relevant and good quality baseline data that is accurately and appropriately documented. This should include monitoring the representation and participation of disaggregated groups, including gendered, marginalised, or vulnerable groups, such as those living with disabilities, in project activities. It will also consider the quality of the information generated by the monitoring system during project implementation and how it was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The Review should confirm that funds allocated for monitoring were used to support this activity.
- 59. The performance at project completion against Core Indicator Targets should be reviewed. For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided.

iii. Project Reporting

60. UNEP has a centralised project information management system (Anubis) in which project managers upload six-monthly progress reports against agreed project milestones. This information will be provided to the Review Consultant(s) by the Task Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (e.g. the Project Implementation Reviews and

³⁴ Complementarity with other interventions during project design, inception or mobilization is considered under Strategic Relevance above.

³⁵ SMART refers to results that are specific, measurable, achievable, relevant and time oriented. Indicators help to make results measurable.

Tracking Tool for GEF-funded projects). The Review will assess the extent to which both UNEP and GEF reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups.

Factors affecting this criterion may include:

- Quality of project management and supervision
- Responsiveness to human rights and gender equity (e.g., disaggregated indicators, and data)

H. Sustainability

61. Sustainability³⁶ is understood as the probability of the benefits derived from the achievement of project outcomes being maintained and developed after the close of the intervention. The Review will identify and assess the key conditions or factors that are likely to undermine or contribute to the endurance of achieved project outcomes (i.e. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an <u>assessment of bio-physical factors</u> that may affect the sustainability of direct outcomes may also be included.

i. Socio-political Sustainability

62. The Review will assess the extent to which social or political factors support the continuation and further development of the benefits derived from project outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the Review will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

63. Some project outcomes, once achieved, do not require further financial input, e.g., the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g., to undertake actions to enforce the policy. Other project outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g., continuation of a new natural resource management approach. The Review will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the project outcomes have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

64. The Review will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure. In particular, the Review will consider whether institutional capacity development efforts are likely to be sustained.

Factors affecting this criterion may include:

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined)
- Communication and public awareness
- Country ownership and driven ness.

³⁶ As used here, 'sustainability' means the long-term maintenance of outcomes and consequent impacts, whether environmental or not. This is distinct from the concept of sustainability in the terms 'environmental sustainability' or 'sustainable development', which imply 'not living beyond our means' or 'not diminishing global environmental benefits' (GEF STAP Paper, 2019, Achieving More Enduring Outcomes from GEF Investment)

I. Factors Affecting Project Performance and Cross-Cutting Issues

(These factors are rated in the ratings table but are discussed within the Main Review Report as cross-cutting themes as appropriate under the other review criteria, above. If these issues have not been addressed under the Review Criteria above, then independent summaries of their status within the reviewed project should be given in this section).

i. Preparation and Readiness

65. This criterion focuses on the inception or mobilisation stage of the project (i.e., the time between project approval and first disbursement). The Review will assess whether appropriate measures were taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular the Review will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. (Project preparation is included in the template for the assessment of Project Design Quality).

ii. Quality of Project Management and Supervision

- 66. For GEF funded projects 'project management and supervision' may refer to the project management performance of the Executing Agency and the technical backstopping and supervision provided by UNEP as Implementing Agency. The performance of parties playing different roles should be discussed and a rating provided for both types of supervision (UNEP/Implementing Agency; Partner/Executing Agency) and the overall rating for this sub-category established as a simple average of the two.
- 67. The Review will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including Steering Groups etc.); maintaining project relevance within changing external and strategic contexts; communication and collaboration with UNEP colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. Stakeholder Participation and Cooperation

- 68. Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs, target users of project outputs and any other collaborating agents external to UNEP and the executing partner(s). The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources, and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups, should be considered.
- 69. The progress, challenges, and outcomes regarding engagement of stakeholders in the project/program occurring since the MTR should be reviewed. This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval.

iv. Responsiveness to Human Rights and Gender Equality

70. The Review will ascertain to what extent the project has applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the Review will assess to what extent the intervention adheres to UNEP's Policy and Strategy for Gender Equality and the Environment³⁷.

³⁷The Evaluation Office notes that Gender Equality was first introduced in the UNEP Project Review Committee Checklist in 2010 and, therefore, provides a criterion rating on gender for projects approved from 2010 onwards. Equally, it is noted that policy documents, operational guidelines and other capacity building efforts have only been developed since then and have evolved over time. https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender_equality_and_the_environment_Policy_and_strategy-2015Gender_equality_and_the_environment_policy_and_strategy.pdf.pdf?sequence=3&isAllowed=y

- 71. The report should present the extent to which the intervention, following an adequate gender analysis at design stage, has implemented the identified actions and/or applied adaptive management to ensure that Gender Equality and Human Rights are adequately taken into account. In particular the Review will consider to what extent project, implementation and monitoring have taken into consideration: (i) possible inequalities (especially those related to gender) in access to, and the control over, natural resources; (ii) specific vulnerabilities of disadvantaged groups (especially women, youth and children and those living with disabilities) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially women, youth and children and those living with disabilities) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.
- 72. The completed gender-responsive measures and, if applicable, actual gender result areas should be reviewed. This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent.

v. Environmental and Social Safeguards

- 73. UNEP projects address environmental and social safeguards primarily through the process of environmental and social screening at the project approval stage, risk assessment and management (avoidance, minimization, mitigation or, in exceptional cases, offsetting) of potential environmental and social risks and impacts associated with project and programme activities. The Review will confirm whether UNEP requirements38 were met to: review risk ratings on a regular basis; monitor project implementation for possible safeguard issues; respond (where relevant) to safeguard issues through risk avoidance, minimization, mitigation or offsetting and report on the implementation of safeguard management measures taken. UNEP requirements for proposed projects to be screened for any safeguarding issues; for sound environmental and social risk assessments to be conducted and initial risk ratings to be assigned are reviewed above under Quality of Project Design).
- 74. The Review will also consider the extent to which the management of the project <u>minimised UNEP's environmental footprint.</u>
- 75. Implementation of the management measures against the Safeguards Plan submitted at CEO Approval should be reviewed, the risk classifications verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. Any supporting documents gathered by the Consultant should be shared with the Task Manager.

vi. Country Ownership and Driven-ness

76. The Review will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, i.e., either: a) moving forwards from outputs to project outcomes or b) moving forward from project outcomes towards intermediate states. The Review will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices (e.g., representatives from multiple sectors or relevant ministries beyond Ministry of Environment). This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. Ownership should extend to all gender and marginalised groups.

vii. Communication and Public Awareness

77. The Review will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The Review should consider whether existing

³⁸ For the review of project concepts and proposals, the Safeguard Risk Identification Form (SRIF) was introduced in 2019 and replaced the Environmental, Social and Economic Review note (ESERN), which had been in place since 2016. In GEF projects safeguards have been considered in project designs since 2011.

communication channels and networks were used effectively, including meeting the differentiated needs of gendered or marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the Review will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate.

The project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions should be reviewed. This should be based on the documentation approved at CEO Endorsement/Approval.

Section 3. REVIEW APPROACH, METHODS AND DELIVERABLES

78. The Terminal Review will be an in-depth review using a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative review methods will be used as appropriate to determine project achievements against the expected outputs, outcomes, and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the review implementation phase in order to increase their (and other stakeholder) ownership of the review findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g., sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

The findings of the Review will be based on the following:

- (a) A desk review of:
- Relevant background documentation.
- Project design documents (including minutes of the project design review meeting at approval);
 Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget.
- Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.
- Project deliverables (e.g., publications, assessments etc).
- Mid-Term Review of the project.
- Reviews of similar projects.
- (b) **Interviews** (individual or in group) with:
- UNEP Task Manager (TM).
- Project Manager (PM)
- · Project management team.
- UNEP Fund Management Officer (FMO).
- Portfolio Manager and Sub-Programme Coordinator, where appropriate.
- Project partners, including relevant Ministries and Departments of the Government responsible for EE of appliances and buildings, as well as the university.
- Relevant resource persons.
- Representatives from civil society and specialist groups (such as women's, farmers, and trade associations etc).
- (c) Field visits
- (d) Other data collection tools

Additional details would be provided to the review consultant after onboarding.

11. Review Deliverables and Review Procedures

79. The Review Consultant will prepare:

- **Inception Report:** (see Annex 1 for a list of all templates, tables, and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, review framework and a tentative review schedule.
- Preliminary Findings Note: typically, in the form of a PowerPoint presentation, the sharing of
 preliminary findings is intended to support the participation of the project team, act as a means to
 ensure all information sources have been accessed and provide an opportunity to verify emerging
 findings.
- Draft and Final Review Report: containing an executive summary that can act as a stand-alone
 document; detailed analysis of the review findings organised by review criteria and supported with
 evidence; lessons learned and recommendations and an annotated ratings table.
- 80. A **Review Brief** (a 2-page overview of the evaluand and review findings) for wider dissemination through the UNEP website may be required. This will be discussed with the Task Manager no later than during the finalization of the Inception Report.
- 81. **Review of the Draft Review Report**. The Review Consultant will submit a draft report to the Task Manager and revise the draft in response to their comments and suggestions. The Task Manager will then forward the revised draft report to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Task Manager for consolidation. The Task Manager will provide all comments to the Review Consultant for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.
- 82. The final version of the Terminal Review report will be assessed for its quality by the UNEP Evaluation Office using a standard template and this assessment will be annexed to the final Terminal Review report.
- 83. At the end of the review process, the Task Manager will prepare a **Recommendations Implementation**Plan in the format of a table, to be completed and updated at regular intervals, and circulate the **Lessons**Learned.

12. The Review Consultant

- 84. The Review Consultant will work under the overall responsibility of the Task Manager Sudhir Sharma, in consultation with the Fund Management Officer Fatma Twahir, the Head of Unit/Branch Mark Radka the Portfolio Manager Geordie Colville and the Sub-programme Coordinators of the Climate Change, Niklas Hagelberg.
- 85. The Review Consultant will liaise with the Task Manager on any procedural and methodological matters related to the Review. It is, however, the consultant's individual responsibility (where applicable) to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the Review as efficiently and independently as possible.
- 86. The Review Consultant will be hired over a period of approximately 50 work-days spread over a period of 8 months and should have the following: a university degree in environmental sciences, energy, engineering, international development or other relevant sciences area is required and an advanced degree in the same areas is desirable; a minimum of 15 years of technical / evaluation experience is required, preferably including evaluating large, regional or global programmes and using a Theory of Change approach; and a good/broad understanding of energy efficiency, financing of energy efficiency measures in appliances & buildings and EE policy design is desired. English and French are the working languages of the United Nations Secretariat. For this consultancy, fluency in oral and written English is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

87. The Review Consultant will be responsible, in close consultation with the Task Manager, for overall quality of the review and timely delivery of its outputs, described above in Section 11 Review Deliverables, above. The Review Consultant will ensure that all review criteria and guestions are adequately covered.

13. Schedule of the Review

88. The table below presents the tentative schedule for the Review.

Table 3. Tentative schedule for the Review

Milestone	Tentative Dates
Review start (tentative)	1st August 2022
Inception Report	21st August 2022
Desk based review of documents	21st August to 14th September 2022
Review Mission	15 th September to 20 th September 2022
E-based interviews, surveys etc.	21 st September to 15 th October 2022
PowerPoint/presentation on preliminary findings	3 rd week of October 2022
and recommendations	
Draft Review Report to Task Manager (and Project	First week of November 2022
Manager) including mission (if any)	
Draft Review Report shared with wider group of	Last week of November 2022
stakeholders	
Final Review Report	Mid of January 2023
Final Review Report shared with all respondents	First week of February 2023

14. Contractual Arrangements

- 89. The Review Consultant(s) will be selected and recruited by the Task Manager under an individual Special Service Agreement (SSA) on a "fees only" basis (see below). By signing the service contract with UNEP/UNON, the consultant certifies that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) in the project's execution or implementing units. All consultants are required to sign the Code of Conduct Agreement Form.
- 90. Fees will be paid on an instalment basis, paid on acceptance and approval by the Task Manager of expected key deliverables. The schedule of payment is as follows:

91. Schedule of Payment:

Deliverable	Percentage Payment
Approved Inception Report (as per Annex I document #9)	30%
Approved Draft Main Review Report (as per Annex I document #10)	30%
Approved Final Main Review Report	40%

- 92. <u>Fees only contracts:</u> Where applicable, air tickets will be purchased by UNEP and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Task Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.
- 93. The consultant may be provided with access to UNEP's information management systems (e.g., PIMS, Anubis, SharePoint, etc.) and, if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the Review Report.
- 94. In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by UNEP, payment may be withheld at the discretion of the Head of Branch or Portfolio Manager until the consultants have improved the deliverables to meet UNEP's quality standards.

95. If the consultant fails to submit a satisfactory final product to the Project Manager in a timely manner, i.e., before the end date of their contract, UNEP reserves the right to employ additional human resources to finalize the report, and to reduce the consultant's fees by an amount equal to the additional costs borne by the project team to bring the report up to standard or completion.

7.11 GEF PORTAL INPUTS (FOR GEF FUNDED PROJECTS)

The project has concluded all the planned activities and delivered all the outputs. The outputs achieved for each of the components were reviewed through the activities undertaken to examine the contents and evaluate their relevance in the context of what the project was expected to achieve. The **table 7 below provides** the response to questions for GEF portal inputs. The answers are derived after critical assessment of project outcomes, outputs, and activities. The answers also point out where the project outputs are confusing or not in line with, they are expected to deliver. UNEP and LCEI Project Management made available the reports and other documents for TR. All these documents were reviewed to assess their quality and quantity, and comments are made on their usefulness and the timeliness of their delivery.

Table 6: GEF Portal Inputs

Question: What was the performance at the project's completion against Core Indicator Targets? (For projects approved prior to GEF-7³⁹, these indicators will be identified retrospectively and comments on performance provided⁴⁰).

Response: The project followed the good practices established by UNEP, MECCT and GEF for monitoring of the progress. The Results Framework is the cornerstone of the monitoring plan, which foresees a yearly and a six-monthly report. A Project Terminal Report was also foreseen in the project design.

A mid-term review and a final review have been foreseen in the monitoring plan and budgets were allocated for both.

The indicators included in the Results Framework are SMART, although it is noted that indicators and targets were only defined at outcome and project objective level.

The PIRs submitted by the project have presented the progress as per the results and found consistent with the Results Framework of the project.

Limited amount of evidence found in PIRs about the reporting on constraints and barriers encountered in implementation of various components to allow the monitoring to fulfil its function of flagging issues at the right time.

Question: What were the progress, challenges, and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? (*This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval*).

Response: There was a lack of technical capacity in Maldives. The implementation of energy efficiency for building and appliances was a new area of implementation. The MECCT and other stakeholders took their own time during the initial two years of the project but during the later years the technical capability was built within the country for delivering the project outputs. The project hired technical experts/organizations/consultants from outside the country and used their expertise in implementing the outcomes and activities effectively.

Given the baseline capacity and experience in Maldives, the timeframe for implementation and targets were too ambitious. After the mid-term review, the targets were revised, and the outcomes were reorganized for effective management. With this change, the project management and supervision drastically improved and met high quality standards.

The project engaged the key stakeholders in project design and implementation. There is evidence of responsiveness to stakeholder requests during project implementation.

Question: What were the completed gender-responsive measures and, if applicable, actual gender result areas? (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent).

³⁹ The GEF is currently operating under the seventh replenishment period of the GEF Trust Fund covering the period July 1, 2018, to June 30, 2022.

The GEF Portal Reporting Guide for FY20 Reporting Process indicates that GEF-6 projects that have yet to map existing indicators to GEF-7 Core Indicators need to do so at MTR stage or (if already there) at the time of the TE.

⁴⁰ This is not applicable for Enabling Activities

Response: The project was designed under GEF 5. ProDoc has considered developing and adopting propoor and gender sensitive policies in lending and financial mechanisms. For this, it was proposed to incorporate the collect gender aggregated data in the design of the energy survey. It also considers using tools for gender analysis in formulating and mainstreaming gender aspects in energy efficiency policies and strategies. Some gender segregated data have been gathered under the consumer behaviour study that was initially not part of the ProDoc. However, no gender segregated data has been used to develop and adopt pro-poor and gender-sensitive policies.

When advocacy programs and consultations related to project activities were conducted, the project ensured gender balance in the participation. Of all the trainings held during the project implementation, participation of approximately 40% female and 60% male participants has been ensured.

Question: What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latest PIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. (Any supporting documents gathered by the Consultant during this review should be shared with the Task Manager for uploading in the GEF Portal).

Response: The project had a slow start in creating the necessary team for executing the project and then it took time to create the coordination with different actors in the country that was critical to successful execution of the project. It was expected that towards the end of the second year and third year the activities would speed up. This has not happened due to various factors including the time of getting approvals for contracts and initiating the work. This was the first time the country has taken total ownership of the project execution. Thus, it has been a learning phase for the MECCT and other stakeholders. The progress which was supposed to speed up from the beginning could only happen from the end of the third year. After the mid-term review, the project management and supervision drastically improved and met high quality standards.

Question: What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g., website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions? (This should be based on the documentation approved at CEO Endorsement/Approval)

Response: The LCEI Project used the social media platforms of the MECCT to provide tips on energy efficiency. The project developed the posters and video spots and shared them with the help of Facebook and Twitter handles of the ministry. Posters with energy efficiency messages were printed and distributed to different stakeholders. The #LCEI is in use for all social media posts done through the project.

Posters and video spots were developed on standards and labelling program. Prior to the launching of the labelling program, general awareness on energy efficiency and conservation was disseminated. Immediately following the launch of the labelling program, the Hakathari web page was launched and posters and video clips informing about the labelling program and specifically on the appliances included in the program were disseminated.

In addition to this, posters with energy efficiency messages were printed and distributed to different stakeholders. The project was successful in knowledge management and communicating with stakeholders and beneficiaries.

Question: What are the main findings of the review.

Response: Sustainable Institutional arrangements have been established by the project. The MECCT and MoNPHI are likely to continue supporting the implementation of the building energy code and rating system. Scaling up of pilot initiatives for new buildings.

The project has demonstrated the successful partnership with the Maldives Islamic Bank and introduce a financing program to promote the purchase of Hakathari labelled appliances. Additional benefits were attained by leveraging private sector financing for the implementation of the financing program; and capturing the bank's interest in expanding their portfolio into the area of climate financing.

The overall performance of the project can be rated satisfactory.

7.12 IMPLEMENTATION PLAN OF RECOMMENDATIONS

Project Title and Reference No.: GEF ID 4629: Strengthening Low Carbon Energy Island (LCEI) Strategies in Maldives

Contact Person (TM/PM): Sudhir Sharma (sharma66@un.org)

	PLANS			
RECOMMENDATIONS	ACCEPTED (YES/NO/ PARTIALLY)	WHAT WILL BE DONE?	EXPECTED COMPLETION DATE	RESPONSIBLE OFFICER/ UNIT/ DIVISION/ AGENCY
1. The project has established excellent quality of partnerships with both public and private sector institutions in Maldives and with many international organizations. The continued implementation of energy efficiency guidelines for buildings, building code, energy efficiency labelling program for appliances and the training of energy auditors need funding support to sustain. Thus, it is recommended that MECCT should ensure funding either from its own resources or write a proposal to the Green Climate Fund or to other international funding agencies. The Hakathari labeling program is an excellently designed program and	Partially	As evident from the recommendation, the project has achieved its main mandate and project objectives. The suggested recommendation although adding value is beyond the scope of the project design. However, this recommendation is actively considered in the recent project designs whereas resources are allocated from the GEF fundings to develop grant proposals for further funding beyond the GEF proposal timelines. For this project context, UNEP would encourage MECCT, the executing agency, to actively consider this	Long term.	MECCT, Govt of Maldives

	g support to continue g the energy efficiency laldives.		recommendation for further implementation.		
with the Nardesign an eefficiency lasenergy efficiency lasenergy efficiency the information has eliminal additional prefrigerant relectrical appropriate coordination efficiency S	has collaborated well tional Ozone Unit to ffective energy abeling program and the ciency guidelines for he Hakathari label of the refrigerant. This ted the need for an crocess to implement requirements in opliances. This n between the Energy fection at MECCT and I Ozone Unit should	Yes	The National Ozone unit and the Energy Efficiency Section are part of the same ministry, i.e. Ministry of Climate Change, Environment and Energy. Hence this coordination is expected to continue beyond the project timelines.	Continuous	MECCT
under MECO importers a hundred per efficient app TR, only two associated are still impappliances. under the la zero duty profinancial incomporters to program. De	Efficiency Section CT should recruit more nd retailers to ensure a reent import of energy pliances. At the time of importers were found with the project. Others orting inefficient The products currently belling program are roducts, so there are no centives for the o participate in the uring the Covid times, s Parliament has	Partially	This is a high-level political decision and hence the implementation of the same is beyond the mandate of UNEP and MECCT as the executing agency. In the short term, UNEP would request MECCT to liaise with relevant agencies to explore the possibilities of taking these recommendations further.	Long term. Since this recommendation is beyond the mandate of the UNEP, definitive timelines cannot be fixed.	MECCT, Govt of Maldives

	passed an order to allow zero duty imports of all home appliances. The MECCT discussed this issue with Parliament during the import duty revision. It was informed that next revision can be made to give incentives to energy efficient products once labelling program is fully operational. After the completion of project duration, the efforts to systematically approach the Government and the importers have diluted. It is recommended that MECCT should continue with their efforts to persuade the Government of Maldives to amend the Order to discourage zero duty imports of appliances.				
4.	With support from LCEI Project, the Maldives National University (MNU) has developed energy efficient building design courses for undergraduate and post graduate architect students. The effective delivery of these courses needs funding support for infrastructure development and conducting onthe-job training. The Maldives Government should develop a mechanism to support this initiative as the future transformation of energy efficient building market would heavily depend on locally trained architects and experts. Also, the Maldives	Partially	The implementation of these recommendations is beyond the mandate of UNEP and MECCT as the executing agency. They will continue to liaise with relevant ministries to take up this recommendation appropriately. It may be worthwhile to note that Maldives is part of the global initiatives such as USAID's South Asia Regional Energy Partnership (SAREP) programme and HCFC phaseout (Montreal Protocol). These programmes provide additional opportunities to continue	Long term and continuous. Since this recommendation is beyond the mandate of the UNEP, definitive timelines cannot be fixed.	MECCT

Architects Association should volunteer to assist MNU in teaching the new courses.		implementation of the possible recommendations within the mandate of those projects.		
5. The Maldives Islamic Bank (MIB) has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. The MIB has also launched an innovative financing scheme for the purchase of Hakathari labelled airconditioners. At the time of TR, only two consumers had taken the benefit of the financing scheme. This may be due to the first-time exposure to the financing schemes for the citizens and they need more time to adopt and decide on the use of this facility. Also, the initial phase for raising awareness about the financing scheme was slow to pick-up pace. Given the above and in consideration of the fixed time frame for the project execution, the outreach plan to popularize the scheme couldn't work effectively. Thus, it is recommended that the MECCT and the Energy Efficiency Section should work with MIB and encourage them to design and launch a few effective consumer	Partially	Same as above	Same as above	MECCT

	awareness programs to promote the purchase of Hakathari labelled air-conditioners. The bank has the financial resources to cover the costs. It is only the technical support that is needed.				
6.	The Housing Development Cooperation (HDC) now known as URBANCO is a government promoted company working for certification of buildings in Maldives. URBANCO has adopted BREEAM Building certification system for certification of commercial and other categories of green buildings in Maldives. HDC (now URBANCO) was a member of the LCEI Project Steering Committee and facilitated by providing data for the development of the energy efficiency guideline. The LCEI Project has supported HDC to attain the BREEAM "very good" certification for their upcoming Green Office Building. At the time of TR, URBANCO still didn't have the capacity to assess commercial buildings as the available assessors were trained only in assessment of community housing projects and not the commercial buildings. URBANCO should be encouraged by the Maldives Government to engage more trained experts to accelerate	Partially	This is a recommendation which should be implemented by the Government of Maldives. UNEP would request MECCT to take up with the concerned to continue the capacity building initiatives.	Long term. Since this recommendation is beyond the mandate of the UNEP, definitive timelines cannot be fixed.	MECCT

	the certification of energy efficient or green buildings.				
7.	The projects like LCEI require continuous encouragement from UNEP to involve all relevant stakeholders and other project partners to ensure that specific plans and engagement strategies be developed to foster widening the base of stakeholders that can participate in building the actions for energy efficiency implementation, particularly regarding marginalized gender groups and urban poor. UNEP should continue encouraging MECCT for being sensitive towards gender and urban poor while scaling up the implementation of building and appliance sector energy efficiency projects.	Partially	Given the nature of the recommendation, UNEP would consider this in the development / implementation of all similar projects in the future. Further this aspect would be considered to the extent possible in the ongoing projects UNEP GEF CCM unit has with the country (Electric Mobility and CBIT).	Long term. Since this recommendation is beyond the mandate of the UNEP, definitive timelines cannot be fixed.	MECCT
8.	The Maldives Customs is playing a key role in monitoring the import of energy efficient home appliances from Malaysia and other countries. During the interview with Maldives Customs, it became apparent that the appliances which are being imported do come with the label on them but there is no label on the packing boxes. This makes it difficult to cross verify the appliances without opening the box. Thus, it is recommended that	Partially	This is a government decision beyond the scope of the project boundary. MECCT is well aware of this recommendation. Appropriate decisions would be taken by MECCT at an opportune time.	Long term. Since this recommendation is beyond the mandate of the UNEP, definitive timelines cannot be fixed.	MECCT, Govt of Maldives

Maldives Government should make it mandatory for importers to import the appliances with energy efficiency label displayed on both the appliance and the packing boxes.		
All of the above recommendations	UNEP GEF CCM unit will endeavor to share the recommendations with Maldives UN RC for sharing with all UN agencies. Also, we could send the report to the development partners. Over and above this, this report especially the recommendations plan will be circulated within UNEP to benefit the future project development in Maldives in this domain.	

The following is a summary of lessons learned from some of the project's experiences and based upon explicit findings of the review. They briefly describe the context from which the lessons are derived, and the potential for wider application:

Lesson Learned #1:

LCEI is the first project implemented in Maldives focusing on energy efficiency in buildings and home appliances. The project targeted the key areas like policy, regulations, financing, implementation of pilots, capacity building of public and private sector stakeholders, awareness raising, knowledge management, and reporting to international commitments of Maldives. Building on parallel activities on-going in the country, the project paved the way to drive some of the regulations under the building construction act, the energy act, and the climate change act. The project facilitated the enactment of Construction Act (4/2017), which paved the way to create an enabling environment for promoting energy efficiency in the building sector. In addition to this, Maldives Energy Act (18/2021) was ratified on 11th October 2021. It establishes a legal framework of standards and laws for the provision of energy in the Maldives, dealing with both the production and consumption of energy. The standards and labelling program were launched on 16th

	September 2021 as a voluntary program. These are excellent contributions to the country, and it can be replicated in other SIDS.
Context/comment:	The project paved the way for introduction of relevant policies and programs in Maldives, which is an example for replication in other SIDS.

Lesson Learned #2:	The Project Management Unit at MECCT collaborated well with the National Ozone Unit to streamline the standardization for energy labelled appliances. Maldives has set an example through developing the energy efficiency labelling program keeping the requirements of national ozone targets in mind. The energy efficiency labelling for refrigerants containing air conditioners and refrigerators is covered in the program. The Hakathari label provides the ODP and GWP level information of the refrigerant. This is one of the leading examples as many countries at advanced stages of labeling program implementation don't yet have this kind of information displayed on energy efficiency labels. The process is well streamlined so that appliances being vetted for energy efficiency labelling will also be checked for ODP and GWP requirements.
Context/comment:	Maldives has set an example through integrating the national ozone targets while designing the energy efficiency labelling program. Due to this, the appliances being vetted for energy efficiency labelling can also be checked for ODP and GWP requirements.

Lesson Learned #3:	The MECCT team not only did activities stated in project document they have been activity seeking opportunities to partner with various organization to achieve the project objectives. Such as conducting the first Energy Audit Certification course through the Association of Energy Engineers. Other such initiative is capacity building arrangements that was done during the early years of the project where the team secured partnership with Energy Efficiency Services Limited (EESL), India to conduct tailor made course for standards and labelling program. This was one of the key sustainable capacity building activities organized by the project team which led to the successful implementation of the Hakthari Program.
Context/comment:	The project helped Maldives in establishing international partnerships to build local capacity.

Lesson Learned #4:	The project was specifically designed to provide the foundation needed for sustainable energy efficiency actions in the Maldives. The foundation of the project was the building of local capacity to locate areas where improved energy efficiency is needed and the development of long-term financing mechanisms through local institutions to provide for the continuing investment in energy efficiency measures. The project achieved success in building the local capacity in Maldives. The project was able to engage with stakeholders from private sector, Government Ministries and departments, NGOs, financing institutions, architect association and the academia in Maldives. The partnership build with Maldives National University and the Maldives Islamic Bank are the successful examples for replication in other similar countries. The Maldives Islamic Bank has allocated up to USD 1,000,500.00 from its own funds for the financing scheme accessible for consumers who wish to purchase Hakathari labelled appliances. Similarly, the Maldives National University designed courses for the undergraduate and post graduate students.
Context/comment:	The mobilization of USD 1,000,500.00 from Maldives Islamic Bank for financing the Hakathari labelled appliances and designing of courses for undergraduate and post graduate students by the Maldives National University are the examples of meaningful participation of key stakeholders.

Lesson Learned #5:	The project highly focused on Capacity development to sustain the momentum. Several capacity building activities were undertaken by the project in the areas of energy auditing, developing, and implementing standards and labelling programs, energy efficiency financing, energy efficient building designs and energy modelling of buildings, training of trainers, life cycle costing, training for marketing and distribution of energy efficient appliances. This has built the local capacity to sustain the project outcomes even after the completion of implementation period.
Context/comment:	Long term sustainability of project outcomes has been ensured during implementation of project activities.

Lesson Learned #6:	Considering that the implementation of energy efficiency in building would require energy audits and technical expertise, the project has organized focused training sessions for energy auditors with support
	from the international organization "Association of Energy Engineers". This engagement has allowed
	internationally recognized energy auditor certifications for Maldivian energy auditors. In addition to this, it
	has also opened networking avenues for increasing their knowledge and continuing their professional
	development in this area. The project has engaged the Maldives National University, a public educational
	institute to sustain the capacity building efforts under the project. MNU worked in partnership with the
	project to update their course curriculums to incorporate energy efficiency and conservation aspects into
	their courses and developed energy auditor's module (stand-alone course) which would help in capacity

	building of professionals in the Maldives. For a small country like Maldives, this innovative approach of developing course curriculums will have a positive impact on continued capacity building activities.
Context/comment:	The Maldives National University updated the curriculum to incorporate energy efficiency and designed a training module for energy auditors. This will help in transforming the energy efficiency market.
Lesson Learned #7:	In partnership with the Maldives Islamic Bank (MIB), the project was able to launch a financing program to promote the purchase of energy efficiency labelled appliances. MIB is one of the most prominent banks in the Maldives with an established customer base attaining financing for small goods and appliances Additional benefits were attained by leveraging private sector financing for the implementation of the financing program; and capturing the bank's interest in expanding their portfolio into the area of climate financing.
Context/comment:	Maldives is one of the few countries to design and launch an innovative financing program to promote the sale of energy efficient appliances.
Lesson Learned #8:	Institutional arrangements have been established at MECCT to continue and strengthen the Hakathar labelling program. MECCT has planned the activities as the next steps for continued implementation and monitoring of the program. These activities include the implementation of standards and labelling program implementation of capacity building sessions for standards and labelling program; implementing public awareness activities on standards and labelling program; developing and gazetting the energy audit regulation; and developing and gazetting the new building certification. Getting the approvals from the Minister of MECCT and the Economic Council at the Ministry of Economic Development confirms the commitment to continue implementation. The LCEI Project has already integrated the processes and procedures into the functions of MECCT and Maldives Customs Services (MCS). For the implementation of the labelling program, a separate section was established at the Energy Department of the MECCT. This ensures the sustainability of the program.
Context/comment:	The approvals from the Minister of MECCT and the commitment from Economic Council at the Ministry of Economic Development confirms the long-term sustainability of project outcomes.
Lesson Learned #9:	The building sector is the major user of Refrigeration and Air Conditioning (RAC) equipment. Guidelines codes for promoting green/ energy efficient building material, and design and building construction using climate friendly alternatives of HCFC in RAC is a useful tool for achieving accelerated phaseout objectives. The draft compliance documents of the building code have been incorporated with the Energy Efficiency

	provisions. Compliance documents are developed for the Ministry of National Planning, Housing, and Infrastructure (MNPHI). MNPHI has ownership of the compliance documents under the Construction Act of Maldives. MNPHI had committed to continue with the legal process for finalization of the compliance documents. The following compliance documents were developed with respect to the Energy Efficiency Guideline for Buildings in the Maldives: a) Ventilation, b) Natural Light, c) Artificial Light, d) Energy Efficiency. As such, in addition to the efficiency level, the Hakathari Label also identifies the refrigerant information in RAC equipment. Presently, it is set to eliminate the equipment containing ozone depleting substances and provides the avenue for implementing standards for GWP in RAC equipment.
Context/comment:	The project facilitated that the draft compliance documents of the building code have been incorporated with the Energy Efficiency provisions.

Considering that the children and youth can play a major role in generating the awareness about energy Lesson Learned #10: efficiency in energy consumers, general public, their family members and the women, intense awareness raising sessions were organized by LCEI Project for school students, teachers and the associations like Maldives Girl Guides Association (MGGA) and the Scout Association of Maldives (SAM). The energy efficiency badge helped in raising awareness and increasing the knowledge on energy, energy efficiency and climate change in the youths. The badge was developed in cooperation with the MGGA and the SAM. The Scout Association of Maldives is a member of the World Organization of Scout Movement (WOSM) since 23 July 1990. The mission of Scouting is to contribute to the education of young people, through a value system based on the Scout Promise and Law to help build a better world where people are selffulfilled as individuals and play a constructive role in society. The Maldives Girl Guides Association is the largest voluntary organization for girls and young women in the Maldives. They are a member of World Association of Girl Guides and Girl Scouts (WAGGGS) which is of the world's largest voluntary organization for girls and young women. The project supported both organizations with printed badges to initiate the implementation. As there is a small fee associated with all badges, the associations will be able to continue the energy efficiency badge in a sustainable manner after the project ends. Project engaged the scout and guides associations in Maldives to sensitize the children about energy Context/comment: conservation.

QUALITY ASSESSMENT OF THE REVIEW REPORT

Review Title: Terminal Review Report of the UNEP-GEF project 'Strengthening Low Carbon Energy Island (LCEI) Strategies in Maldives' (GEF ID 4629)

Consultant: Mr. Sanjay Dube

All UNEP Reviews are subject to a quality assessment by the UNEP Evaluation Office. This is an assessment of the quality of the review product (i.e. Main Review Report).

	UNEP Evaluation Office Comments	Final Review Report Rating
Report Quality Criteria		
Quality of the Executive Summary Purpose: acts as a stand alone and accurate summary of the main	Final report (coverage/omissions):	5
review product, especially for senior management.	All required elements are addressed. The	
To include:	report is well-written and covers	
 concise overview of the review object 	everything else required.	
clear summary of the review objectives and scopeoverall review rating of the project and key features of	Final report (strengths/weaknesses):	
 performance (strengths and weaknesses) against exceptional criteria reference to where the review ratings table can be found within the report summary response to key strategic review questions summary of the main findings of the exercise/synthesis of main conclusions 	This section doesn't explicitly highlight the strategic questions in the executive summary, even though they might be addressed elsewhere.	
 summary of lessons learned and recommendations. 		
Quality of the 'Introduction' Section Purpose: introduces/situates the evaluand in its institutional context, establishes its main parameters (time, value, results, geography) and the purpose of the review itself. To include:	Final report (coverage/omissions): The Introduction is well-written. It provides a comprehensive overview of the project and the review itself.	5
 institutional context of the project (sub-programme, Division, Branch etc) date of PRC approval, project duration and start/end dates number of project phases (where appropriate) results frameworks to which it contributes (e.g. POW Direct Outcome) coverage of the review (regions/countries where implemented) implementing and funding partners total secured budget whether the project has been reviewed/evaluated in the past (e.g. mid-term, external agency etc.) concise statement of the purpose of the review and the key intended audience for the findings. 	Final report (strengths/weaknesses): This section does not clearly identify the institutional context of the project (i.e. which division or branch) and the target audience for the review.	
Quality of the 'Review Methods' Section Purpose: provides reader with clear and comprehensive description of review methods, demonstrates the credibility of the findings and performance ratings. To include: description of review data collection methods and information sources	Final report (coverage/omissions): The final report covers the essential aspects of the review methods, outlining data collection through desk reviews, stakeholder interviews, and field visits, along with information verification and analysis. Final report (strengths/weaknesses):	3

 justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face) number and type of respondents (see table template) selection criteria used to identify respondents, case studies or sites/countries visited strategies used to increase stakeholder engagement and consultation methods to include the voices/experiences of different and potentially excluded groups (e.g. vulnerable, gender, marginalised etc) details of how data were verified (e.g. triangulation, review by stakeholders etc.) methods used to analyse data (scoring, coding, thematic analysis etc) review limitations (e.g. low/ imbalanced response rates across different groups; gaps in documentation; language barriers etc) ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected. Is there an ethics statement? E.g. 'Throughout the review process and in the compilation of the Final Review Report efforts have been made to represent the views of both mainstream and more marginalised groups. All efforts to provide respondents with anonymity have been made. 	The report does not mention how many people were interviewed or the criteria used to select them, although annex 22 lists 22 respondent. There is also a lack of detail on the specific data sources used, the analysis methods employed, and how gender considerations and marginalized groups were included. Furthermore, the report heavily relies on generic descriptions from the Terms of Reference and offers no insights into how ethical and human rights issues were addressed during the review process.	
 Quality of the 'Project' Section Purpose: describes and verifies key dimensions of the evaluand relevant to assessing its performance. To include: Context: overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses) Results framework: summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) Stakeholders: description of groups of targeted stakeholders organised according to relevant common characteristics Project implementation structure and partners: description of the implementation structure with diagram and a list of key project partners Changes in design during implementation: any key events that affected the project's scope or parameters should be described in brief in chronological order Project financing: completed tables of: (a) budget at design and expenditure by components (b) planned and actual 	Final report (coverage/omissions): The report provides a solid foundation for understanding the project. It details the project goals, components, and activities, including any changes made during implementation. Final report (strengths/weaknesses): The report could have been strengthened in a few areas. First, providing a more specific overview of the challenges faced before the project (situational analysis) would better contextualize the project's goals. The implementation structure would have benefited from a written explanation alongside the provided organigram. Additionally, the financing section provides only high level figures and lacks completed budget tables.	4
Sources of funding/co-financing Quality of the Theory of Change Purpose: to set out the TOC at Review in diagrammatic and narrative forms to support consistent project performance; to articulate the causal pathways with drivers and assumptions and justify any reconstruction necessary to assess the project's performance. To include:	Final report (coverage/omissions): The report clearly explains the process of revising the Theory of Change (ToC), including why it was done and how it better reflects the project's impact on beneficiaries. It also details the revised project outcomes. Final report (strengths/weaknesses): This section lacks a table summarizing the changes made, particularly the reformulated results. On the positive side, the narrative explains the data sources used for the revised ToC and	4.5

 description of how the TOC at Review⁴¹ was designed (who was involved etc) confirmation/reconstruction of results in accordance with UNEP definitions articulation of causal pathways identification of drivers and assumptions identification of key actors in the change process summary of the reconstruction/results re-formulation in tabular form. The two results hierarchies (original/formal revision and reconstructed) should be presented as a two-column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'. This table may have initially been presented in the Inception Report and should appear somewhere in the Main Review report. 	identifies the main causal pathways with their corresponding outputs, outcomes, and other elements. However, the ToC doesn't consider human rights or gender dimensions, which are important aspects according to UNEP guidance.	
Quality of Key Findings within the Report	Final report (coverage/omissions):	5
Presentation of evidence: nature of evidence should be clear (interview, document, survey, observation, online resources etc) and evidence should be explicitly triangulated unless noted as having a single source.	The report uses evidence to support its ratings and maintains internal consistency, while the findings are scattered throughout the evaluation sections,.	· ·
Consistency within the report: all parts of the report should form consistent support for findings and performance ratings, which should be in line with UNEP's Criteria Ratings Matrix. Findings Statements (where applicable): The frame of reference for	Final report (strengths/weaknesses): While the information is within the report, it could have been presented more clearly by including concluding	
a finding should be an individual review criterion or a strategic question from the TOR. A finding should go beyond description and uses analysis to provide insights that aid learning specific to the evaluand. In some cases a findings statement may articulate a key element that has determined the performance rating of a criterion. Findings will frequently provide insight into 'how' and/or 'why' questions.	sentences summarising the report's key findings.	
Quality of 'Strategic Relevance' Section	Final report (coverage/omissions):	4
Purpose: to present evidence and analysis of project strategic relevance with respect to UNEP, partner and geographic policies and strategies at the time of project approval.	The report clearly demonstrates the project's alignment with UNEP, GEF, and national environmental priorities.	
To include:		
Assessment of the evaluand's relevance vis-à-vis: • Alignment to the UNEP Medium Term Strategy (MTS), Programme of Work (POW) and Strategic Priorities	Final report (strengths/weaknesses): The report mentions complementarity with existing interventions, providing specific examples of how the project	
Alignment to Donor/GEF/Partners Strategic Priorities	interacted and leveraged lessons from	
Relevance to Regional, Sub-regional and National Environmental Priorities	these initiatives would be valuable. However, there seems to be some redundancy in the report. Section 5.2.2 appears to repeat information on GEF	
Complementarity with Existing Interventions: complementarity of the project at design (or during)	priorities already covered in section 5.1.1.	

⁴¹ During the Inception Phase of the review process a *TOC at Review Inception* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions), formal revisions and annual reports etc. During the review process this TOC is revised based on changes made during project intervention and becomes the *TOC at Review*.

inception/mobilisation ⁴²), with other interventions addressing the needs of the same target groups.		
Quality of the 'Quality of Project Design' Section Purpose: to present a summary of the strengths and weaknesses of the project design, on the basis that the detailed assessment was presented in the Inception Report.	Final report (coverage/omissions): The report offers a thorough assessment of the project design, analyzing aspects like stakeholder involvement, project goals, and risk management. It highlights the project's strengths, such as identifying key challenges and building a clear decision- making structure.	4
	Final report (strengths/weaknesses): The report occasionally goes off track by mentioning findings from other reports (e.g., Mid-Term Review) and doesn't explicitly state which design criteria received high or low ratings.	
Purpose: to describe and recognise, when appropriate, key external features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval ⁴³), and how they affected performance.	Final report (coverage/omissions): The report effectively captures the impact of both the COVID-19 pandemic and the change of government on project implementation, demonstrating a thorough understanding of the external context.	4.5
While additional details of the implementing context may be informative, this section should clearly record whether or not a major and unexpected disrupting event took place during the project's life in the implementing sites.	Final report (strengths/weaknesses): The report clearly acknowledges the impact of COVID-19 and the change of government on the project, demonstrating a strong understanding of the external factors affecting implementation.	
Quality of 'Effectiveness' Section	Final report (coverage/omissions): The report uses a clear table to show	4
(i) Availability of Outputs: Purpose: to present a well-reasoned, complete and evidence-based assessment of the outputs made available to the intended beneficiaries.	how well the project delivered its planned outputs.	
To include:	Final report (strengths/weaknesses):	
 a convincing, evidence-supported and clear presentation of the outputs made available by the project compared to its approved plans and budget assessment of the nature and scale of outputs versus the project indicators and targets assessment of the timeliness, quality and utility of 	In the report, there's no feedback from the intended beneficiaries about the usefulness or timeliness of the outputs. Second, the report doesn't analyze how factors like gender, vulnerability, or marginalization affected how these	
 outputs to intended beneficiaries identification of positive or negative effects of the project on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. 	groups benefited from the project's outputs. Finally, the report doesn't explain why the project succeeded or struggled in delivering its outputs.	

⁴² A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity <u>during project implementation</u> is considered under Efficiency, see below.

⁴³ Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team.

through disability).		
ii) Achievement of Project Outcomes:	Final report (coverage/omissions):	3
<u>Purpose:</u> to present a well-reasoned, complete and evidence-based assessment of the uptake, adoption and/or implementation of outputs by the intended beneficiaries. This may include behaviour changes at an individual or collective level.	The report offers a comprehensive evaluation of project outcomes, detailing baselines, targets, and achievement levels.	
	achievement levels.	
To include:		
 a convincing and evidence-supported analysis of the uptake of outputs by intended beneficiaries assessment of the nature, depth and scale of outcomes versus the project indicators and targets discussion of the contribution, credible association and/or attribution of outcome level changes to the work of the project itself any constraints to attributing effects to the projects' work identification of positive or negative effects of the project on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability). 	Final report (strengths/weaknesses): While the report uses a table to summarize outcome achievement, it lacks a more thorough discussion. The assessment would have benefited from a detailed analysis of how beneficiaries used the project's outputs and whether they were adopted or implemented as planned. Additionally, the report does not explore how much the project contributed to the results, what factors influenced performance, and how disadvantaged groups were impacted.	
(iii) Likelihood of Impact:	Final report (coverage/omissions):	2
Purpose: to present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact, including an assessment of the extent to which drivers and assumptions necessary for change to happen, were seen to be holding. To include: • an explanation of how causal pathways emerged and change processes can be shown • an explanation of the roles played by key actors and change agents • explicit discussion of how drivers and assumptions played out • identification of any unintended negative effects of the project, especially on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).	The sub-criterion has been covered in the review, as required. Final report (strengths/weaknesses): There's an absence of details explaining how the project actually led to change (impact mechanisms). Additionally, the report doesn't discuss the long-term impact of the project's outcomes. The report is also silent on the status of the drivers, assumptions, and intermediate states identified in the ToC. There's no mention of potential unintended negative effects or how gender considerations were factored in.	
 Quality of 'Financial Management' Section Purpose: to present an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table (may be annexed). Consider how well the report addresses the following: adherence to UNEP's financial policies and procedures completeness of financial information, including the actual project costs (total and per activity) and actual co-financing used communication between financial and project management staff 	Final report (coverage/omissions): The report mentions the total cofinancing and its sources but doesn't delve deeper. Final report (strengths/weaknesses): This section lacks detail on how the cofinancing was used for different project activities. Additionally, there is no evidence to support key financial aspects like disbursement schedules. While the report presents the project budget compared to expenditures and mentions co-funding, it does not provide separate discussions within the text for the three sub-categories under financial management (e.g., disbursement timelines, budget revisions). A more detailed table is provided in the	4

Quality of 'Efficiency' Section	Final report (coverage/omissions):	4
<u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under efficiency (i.e. the primary categories of cost-effectiveness and timeliness).	The report acknowledges that the project delivered outputs efficiently despite the extension.	
To include:	Final report (strengths/weaknesses):	
 time-saving measures put in place to maximise results within the secured budget and agreed project timeframe discussion of making use, during project implementation, of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. 	This section does not mention any cost- saving measures implemented during that time. There is also no discussion on how UNEP minimized its environmental impact throughout the project.	
 implications of any delays and no cost extensions the extent to which the management of the project minimised UNEP's environmental footprint. 		
Quality of 'Monitoring and Reporting' Section	Final report (coverage/omissions):	4
Purpose: to present well-reasoned, complete and evidence-based assessment of the evaluand's monitoring and reporting. Consider how well the report addresses the following:	The report covers all the required aspects of monitoring design, budgeting, and reporting quality.	
 quality of the monitoring design and budgeting (including SMART results with measurable indicators, resources for MTE/R etc.) quality of monitoring of project implementation (including use of monitoring data for adaptive management) quality of project reporting (e.g. PIMS and donor reports) Thank you for reaching out. 	Final report (strengths/weaknesses): The report focuses more on the structure and content of progress reports than on how the monitoring data itself was actually used. There is no mention of how this data informed adaptive management practices throughout the project. In other words, the report describes what monitoring was done, but not how it influenced project decisions or improvements.	
Quality of 'Sustainability' Section	Final report (coverage/omissions):	5
<u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under sustainability (i.e. the endurance of benefits achieved at outcome level). Consider how well the report addresses the following:	The report is well-supported by examples that strengthen the overall assessment of the project's sustainability.	
socio-political sustainability	Final report (strengths/weaknesses):	
 financial sustainability institutional sustainability 	The report excels in its assessment of project sustainability. It provides a comprehensive analysis across the social, political, financial, and institutional aspects that can influence a	
Quality of Factors Affecting Performance Section	project's long-term success. Final report (coverage/omissions):	4
Purpose: These factors are not always discussed in stand-alone sections and may be integrated in the other performance criteria as appropriate. However, if not addressed substantively in this section, a cross reference must be given to where the topic is addressed and that entry must be sufficient to justify the performance rating for these factors. Consider how well the review report, either in this section or in cross-	The report (coverage/ornissions). The report addresses environmental and social safeguards but lacks specifics. While it mentions these safeguards, it doesn't delve into the details of how they were implemented or how effective they were.	7
referenced sections, covers the following cross-cutting themes: • preparation and readiness	Final report (strengths/weaknesses): The report could have been strengthened by providing information on whether the project underwent a screening process to identify potential	
	risks and if there were mechanisms in	

	T	
 quality of project management and supervision⁴⁴ stakeholder participation and co-operation responsiveness to human rights and gender equality environmental and social safeguards country ownership and driven-ness communication and public awareness Quality of the Conclusions Section	place to manage those risks throughout the project. Final report (coverage/omissions):	2
(i) Conclusions Narrative: Purpose: to present summative statements reflecting on prominent aspects of the performance of the evaluand as a whole, they should be derived from the synthesized analysis of evidence gathered during the review process. To include: • compelling narrative providing an integrated summary of the strengths and weakness in overall performance (achievements and limitations) of the project • clear and succinct response to the key strategic questions • human rights and gender dimensions of the intervention should be discussed explicitly (e.g. how these dimensions were considered, addressed or impacted on)	The report covers the overall project performance. The report fails to address the human rights and gender dimensions of the intervention, which are crucial aspects to consider when assessing the performance of a project. Final report (strengths/weaknesses): The conclusion does not provide a clear narrative summarizing the project's main achievements and challenges. It seems to repeat elements from the introduction and implementation sections, lacking a strong, summative statement that justifies the overall project rating. Additionally, the key strategic questions presented earlier in the report are missing from the conclusion.	
ii) Utility of the Lessons: Purpose: to present both positive and negative lessons that have potential for wider application and use (replication and generalization) Consider how well the lessons achieve the following: • are rooted in real project experiences (i.e. derived from explicit review findings or from problems encountered and mistakes made that should be avoided in the future) • briefly describe the context from which they are derived and those contexts in which they may be useful • do not duplicate recommendations	Final report (coverage/omissions): The report's lessons learned section offers valuable insights into the project's successes and areas for improvement. Final report (strengths/weaknesses): The lessons themselves are presented as a list of project achievements rather than being formulated in a way that can be easily applied to other contexts.	2
(iii) Utility and Actionability of the Recommendations: Purpose: to present proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results. Consider how well the lessons achieve the following: • are feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when • include at least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions	Final report (coverage/omissions): The recommendations section identifies clear actions to address the project's shortcomings and assigns responsibility for implementing them. As the majority of the recommendations are addressed to third parties with no legal obligation (contractual/legal agreement) to comply, only the transmission of the recommendation by UNEP to the	3

⁴⁴ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UNEP. This includes providing the answers to the questions on Core Indicator Targets, stakeholder engagement, gender responsiveness, safeguards and knowledge management, required for the GEF portal.

 represent a measurable performance target in order that the UNEP Unit/Branch can monitor and assess compliance with the recommendations. NOTES: In cases where the recommendation is addressed to a third party, compliance can only be monitored and assessed where a contractual/legal agreement remains in place. Without such an agreement, the recommendation should be formulated to say that UNEP project staff should pass on the recommendation to the relevant third party in an effective or substantive manner. The effective transmission by UNEP of the recommendation will then be monitored for compliance. Where a new project phase is already under discussion or in preparation with the same third party, a recommendation can be made to address the issue in the next phase. 	respective parties can be monitored for compliance. Final report (strengths/weaknesses): Timelines and measurable targets are missing.	
Quality of Report Structure and Presentation (i) Structure and completeness of the report: To what extent does the report follow the UNEP Evaluation Office structure and formatting guidelines? Are all requested Annexes included and complete?	Final report (coverage/omissions): The report has all sections and is complete Final report (strengths/weaknesses): Annexes are all included	5
(ii) Writing and formatting: Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information?	Final report (strengths/weaknesses): The report is well written.	5
OVERALL REPORT QUALITY RATING		3.9

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the review report is calculated by taking the mean score of all rated quality criteria.