

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE

Independent terminal evaluation of project

Towards sustainable energy for all in Mozambique: Promoting market-based dissemination of integrated renewable energy systems for productive activities in rural areas

UNIDO ID: 150263

GEF Project ID: 9225

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I. PROJECT BACKGROUND AND CONTEXT

1. Project factsheet¹²

	Towards sustainable energy for all in Mozambique: Promoting
Project title	market-based dissemination of integrated renewable energy
	systems for productive activities in rural areas
UNIDO ID	150263
GEF Project ID	9225
Region	Africa
Country(ies)	Mozambique
Project donor(s)	GEF
Project implementation	26.0 (1.1) (2015)
start date	26 October, 2015
Expected duration	48 months
Expected implementation	24 Ostahan 2022
end date	24 October, 2023
GEF Focal Areas and	GEF-6: Climate Change
Operational Project	GEF-0. Cliffiate Change
Implementing agency(ies)	UNIDO
Government coordinating	Ministry of Land, Environment and Rural Development (MITADER)
agency	Willistry of Land, Environment and Rural Development (WillADER)
Executing Partners	 Ministry of Land, Environment and Rural Development (MITADER); Ministry of Energy and Mines Resources (MIREME); Ministry of Agriculture and Food Security (MASA); Ministry of Education and Human Development (MEC); National Sustainable Development Fund (FNDS); Energy Fund (FUNAE); and SADC Centre for Renewable Energy and Energy Efficiency (SACREEE).
UNIDO RBM code	IC32 Clean energy access
Donor funding	USD 2,851,384
Project GEF CEO endorsement / approval	18 July, 2017
date	,, -
UNIDO input	USD 60,000 (Grants), USD 140,000 (In-kind)
Co-financing at CEO	
Endorsement, as applicable	USD 11,284,997
Total project cost (USD), excluding support costs and PPG	USD 14,136,381
Mid-term review date	May – July 2021
Planned terminal evaluation date	1 st July – 24 th October 2023

(Source: Project document)

¹ Data to be validated by the Consultant

2. Project context

In Mozambique, the rural electrification rate reached only 27% as the extension of electricity grids has proven to be technically difficult, very costly and sometimes an inefficient solution due to the remoteness and sparse population density. The agricultural sector -one of the most important sectors of the economy-faces serious challenges in accessing electricity and other forms of modern energy forcing it to rely on expensive diesel, firewood and/or charcoal for its operations. Even though it has been estimated that Mozambique has a potential of 7 GW on renewable projects, the use of modern energy for productive uses is still very limited. As such, the United Nations Industrial Development Organization (UNIDO) – as an implementing agency of the Global Environment Facility (GEF) – and the Government of Mozambique are implementing the project "Towards sustainable energy for all in Mozambique: Promoting market-based dissemination of integrated renewable energy systems for productive activities in rural areas" which seeks – among other outcomes – to demonstrate the technical feasibility and commercial viability of renewables in productive sectors including agriculture and agro-food processing industries.

The project is aligned with the GEF Focal area strategy of Climate Change-1 (CCM-1) Program 1 through the promotion of renewable energy integrated systems such as solar PV and biomass usage for energy generation displaces the use of carbon-intensive fuels (e.g., diesel generators), thus contributing to the reduction of GHG emissions and benefiting the development of a low-emission development path.

The Project consists of four (4) components, as listed below:

- Component 1: Establishment of a conducive policy and regulatory environment. The activities to
 be undertaken under Component 1 are intended to enhance the regulatory and policy environment
 to promote the involvement of the private sector in developing integrated RE systems for rural
 areas. Besides, Component 1 will create institutional capacity in the local counterparts to guarantee
 that the activities continue once the Project is closed.
- Component 2: Capacity building and knowledge management. Component 2 aims at improving and developing the capabilities and knowledge of market players and enablers in the RE sector
- Component 3: Technology Demonstration and scaling up. The activities to be undertaken under Component 3 aim at demonstrating the application of RE technologies in agricultural activities located in rural areas of Mozambique, namely: solar PV water pumping and biogas/biomass usage in agro-food processing industries
- Component 4: Monitoring and Evaluation. The objectives of this component are to (a) establish and conduct adequate and systematic M&E and reporting of all project indicators following UNIDO and GEF procedures to ensure successful project implementation; (b) establish a dedicated website for the Project; and (c) ensure that the dissemination programme is implemented and project milestones/reports etc., are regularly posted on the website

The project was approved on 18 July 2017, with a total funding of USD 2,851,384. The original end date of the project was 26 October 2021 before it was extended one year twice, ending on 24 October 2023. The project aimed to carry out a series of components and activities to lead the marked-based adoption of integrated renewable energy systems (solar PV for irrigation and waste-to-energy) in small to medium-scale farms and rural agro-food processing industries in Mozambique

The main counterpart was the Ministry of Land, Environmental and Rural Development (MITADER); Ministry of Energy and Mines Resources (MIREME); Ministry of Agriculture and Food Security (MASA), Ministry of Education and Human Development (MEC), National Sustainable Development Fund (FNDS), Energy Fund (FUNAE), and SADC Centre for Renewable Energy and Energy Efficiency (SACREEE). The Project's Mid-Term Review (MTR) was carried out between May and July 2021.

3. Project objective and expected outcomes

The project objective is to promote market-based dissemination of integrated renewable energy systems for productive uses in rural areas of Mozambique, focusing on solar PV and Waste-to-Energy solutions in small to medium-scale farms and agro-food processing facilities. The project seeks to act as a trigger for demonstration and rapid replication in integrating RE technology and promoting these technologies in small and medium-scale businesses, particularly in rural areas. The project aims to overcome policy, technology, operation and financial benefits to achieve greater cost-effective RE project deployment.

Expected Outcomes:

Components	Expected Outcomes
Component 1: Establishment of a conducive policy and Regulatory environment	 Policy and regulatory environment promoting integrated renewable energy systems in rural areas established
Component 2: Capacity building and knowledge management	Capacity of key players strengthened and information available for market enablers and players
Component 3: Technology Demonstration and scaling up	 Integrated RE systems demonstrated Investments in integrated RE Systems scaled up Increased confidence and awareness of technical feasibility and commercial viability of integrated RE systems
Component 4: Monitoring and Evaluation	Project progress towards objectives continuously monitored and evaluated

4. Project implementation arrangements

UNIDO employed a National Project Coordinator (NPC). In collaboration with the Project Manager who is responsible for the project at UNIDO HQs, the NPC is responsible for the overall coordination of the project, including (i) coordinating the project activities with the stakeholders; (ii) certifying that the expenditures are line with approved budgets and work-plans; (iii) facilitating, monitoring, and reporting on the procurement of inputs and delivery of outputs; and (v) reporting to UNIDO on project delivery and impact.

Additionally, a PSC was established at the inception of the project to monitor the project's progress, guide its execution, and support the project in achieving its listed outputs and outcomes. The PSC consists of representatives from the Ministerial directorates (MITADER, MIREME, MASA, MEC, FNDS, FUNAE, UEM, and UNIDO. The PSC is chaired by FUNAE, which is responsible for coordinating the efforts of all government bodies involved to achieve the project's objective. The PSC responsibilities include (a) revision and approval of annual work plans and budgets; (b) revision and approval of annual GEF reporting; (c) revision and approval of project amendments in accordance with the GEF Council Document C.39/Inf.3; and (d) provide guidance on strategic issues and activities, as per approved project document.

The project management structure as designed is provided in **Error! Reference source not found.**

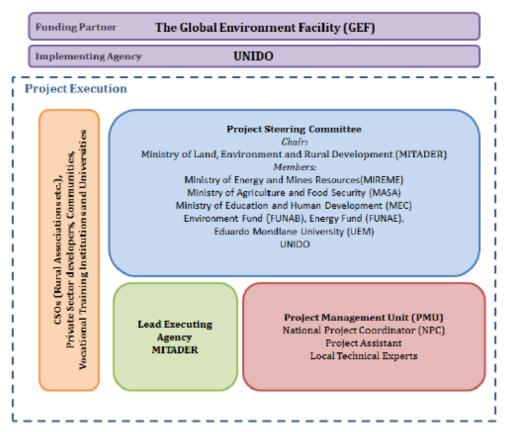


Figure 1: Project implementation arrangements

5. Main findings of the Mid-term review (MTR)

The findings of the Mid-Term Review (MTR) are as follows:

Financial Implementation: Until June 30, 2021, according to the contracts signed in the Project under the heading on Technologies Demonstration and Scaling up, US\$ 453,254 of US\$ 2,227,340 was used; however, they remain available, although already partially committed for activities.

Project Management: Within UNIDO, responsibilities were focused in one UNIDO department at UNIDO HQs under the Project Manager. At the national level of in-country project management, UNIDO has employed a National Project Coordinator (NPC), where the NPC is responsible for the overall coordination of the project, including (i) coordinating the project activities with the stakeholders; (ii) certifying that the expenditures are in line with approved budgets and work-plans; (iii) facilitating, monitoring, and reporting on the procurement of inputs and delivery of outputs; and (v) reporting to UNIDO on project delivery and impact.

Assessment against the MTR criteria:

Relevance: The Project is highly relevant for all the stakeholders and beneficiaries. It is considered relevant by all stakeholders as it aligns with the Country's objectives. It is also relevant to national and international policies, UNIDO, and the donor. The Project was well harmonized with interventions of other donors and well aligned with the priorities of the Government of Mozambique and the local counterparts.

Ownership: the level of the government of Mozambique's ownership of the project was inadecuate. The interviewees also mentioned that the leading counterpart changed from MITADER to FUNAE during the project implementation. The initial beneficiaries of the project have carried out part of the initiative and presented concrete results but dropped out during the initial phase because of the co-financing conditions.

There were also changes in the access and modality of financing changes in the North and Center zones of intervention influenced by movements due to the cyclone, imposing the displacement of populations.

Efficiency: The reviewer was unable to undertake a detailed analysis of the financial efficiency of the project because the UNIDO accounting system does not allow disaggregation of financial disbursement by outputs. Other challenges indicated are linked to bureaucracy at the beginning of the project, customs fees for importing equipment that is not favorable, low rate of development of RES at the local level, and limited understanding of the subject of RE.

Effectiveness: the reviewer considers that there are opportunities that should be taken into account to achieve the intended results, such as the approval of legislation for projects outside the national electricity grid that is being prepared, which will improve the investment environment for RE projects. In the ADPP project implementation phase in Zambezia and Sofala provinces, some of the sources of water weren't delivering enough water to correspond to the capacity of the bigger solar systems; for this reason, were tailor-designed smaller solar water pumping systems, which corresponded to the water capacity.

As most small-scale farmers live in remote smaller communities, smaller decentralized solar-powered irrigation systems will be needed. A holistic approach needs to be introduced, enabling the farmers to build resilience to climate change, with the introduction of nature-friendly agriculture production methods which capture CO2 in the soil, agroforestry systems, rain water harvesting systems, decentralized solar-powered irrigation systems, organization of the farmers, access to markets and credit.

Impact: Because the project will still be ongoing and has not yet achieved its immediate objectives, it is unlikely to produce the expected long-term effect on the implementation of the project "Towards sustainable energy for all in Mozambique: Promoting mark-based dissemination of integrated renewable energy systems for productive activities in rural areas.

Sustainability: Sustainability is a measure of the ability of the stakeholders to achieve and maintain developmental objectives after the end of the project. Since the project is still in progress with delay in meeting any of its objectives or adjusting the goals during the project period, the reviewer considers that at this stage, one cannot talk about sustainability while the country still has challenges related to exchange rates, strict banking rules, including the sanctions that the government still goes through due to hidden debts.

Summary of Recommendations

The recommendation is divided into three sections: Recommendation directed to UNIDO, the Government of Mozambique, and the donor.

Key Recommendations to UNIDO:

- A need to clarify the process of evaluation and selection of competitors that, in addition to predefined criteria, must indicate the composition of the ad hoc commission created for this purpose in replacement of the clusters provided for in the initial design. No evidence was found on the indication of the ad hoc commission.
- 2. A need to enhance and clarify the role of the project's coordinating so that in the time that remains, the execution of the activities planned by the different stakeholder partners can be boosted.
- 3. A need to make the Memorandum signed UNIDO UEM viable to ensure the quality of training provided for components 2 and 3 and ensure the project's sustainability.
- 4. Complete delayed activities of 2020 (e.g., Activity 1.1.2 Development of Guidelines on private sector involvement in renewable energy projects in rural areas and presentation to authorities).
- 5. A need to setup project deadlines/milestones for the Year 2021 / 2022
- 6. To speed up the implementation of the project for all areas where there was no evidence of the ongoing work (e.g., Standards development and dissemination with the involvement of INNOQ and other relevant stakeholders in the year 2021 as part of component 1).
- As part of component 2, there needs to speed up the action plan for the five created UEM working groups to make Progress.

- 8. Joint monitoring (e.g., monthly Focal Points): in Country Project Coordinator on the field > rate of implementation technical meetings (e.g., monthly): identify needs
- Need to continue sensitizing the 5 clusters created under the Memorandum of Understand with the UEM to accelerate training actions on renewable energies and ensure the sustainability of subsequent efforts to promote Promoting market-based dissemination of integrated renewable energy systems for productive activities in rural areas (component)
- 10. The need to find a partnership to operationalize the working groups created by UEM/UNIDO and provide technical assistance as mentioned. The training of the primary beneficiaries in knowledge or technology use or computer skills and internet to have access and actively participate in the competition funds application. To support technical assistance for financing and Innovation to the Project and Leadership of the PSC, FUNAE needs to activate the credit line.
- 11. Improve the engagement and communication of different stakeholders within the Project to allow for ownership of the project
- 12. Take advantage of the opportunity created by the projects resulting from the BCI SUPER credit line to serve as demonstration and training units.
- 13. With the current financing model to promote the use of renewable energies, it is necessary to review the mechanism for demonstration projects to include public entities.

Key Recommendations to the Government:

- 1. A need for continuous improvement in the performance of the government partner, as at the beginning, there were several changes to the project, and the absence of leadership was evident, in particular the entity that had the responsibility of coordinating the processes to create a favorable environment for project implementation as the initial design, as an example. No evidence was found on the active functioning of the task force for legislative reform activity delayed to date.
- 2. A need evidence that the project activities are part of the partners' work plan, including public institutions.
- 3. The government needs to take active leadership to accelerate the approval of the legislative package on renewable energy, including norms and guidelines to create a good environment for the private sector to embark on clean energy projects and boost the productive sector, particularly in rural areas.
- 4. Accelerate activation of the Taskforce action plan created for law reform, including standards.
- 5. A need active involvement of INNOQ to accelerate approval of standards and guidelines.
- 6. In general, we understand that the project's current situation is for the acquisition of ER PV systems and thus guaranteeing their dissemination in rural areas, regardless of components 1 and 2.

Key Recommendations to the Donor:

- 1. For demonstration and training projects, the funding policy should be reviewed in relation to the need for a 70% share
- 2. For demonstration and training projects, the new financing modality should be disclosed to allow the participation of public entities.

Key Lessons Learned:

- 1. One of the significant challenges of implementing solar-powered irrigation systems in rural areas is the sustainability of all operations. These reports focus, therefore, on four essential elements to secure the project's sustainability.
- One critical point is to organize the farmers in some institutional arrangement (clubs or associations
 or other) to promote synergies, facilitate coordination and training, and solve common issues more
 efficiently. Training needs to be provided to farmers in sustainable agriculture techniques geared
 to improve production and secure the necessary income to acquire what they cannot produce. The

- collective consciousness amongst the members also impacts the security and safety of the systems against theft, as there is a common interest in protecting the systems.
- 3. The second element is the maintenance of the systems. First, the farmers have been trained in maintaining the plans, and agreements were made to pay part of the investment to farmers' club-controlled saving and credit groups to maintain the systems and new assets. IDAI interrupted this as the farmers in some target areas lost everything and needed to start from zero. New agreements have been made that they shall set money aside for maintenance costs.
- 4. The third element is the involvement and cooperation with suitable equipment suppliers. The project's leading suppliers have been actively training the water committees and beneficiaries in the use and maintenance of the systems. They are also capable of providing spare parts. Contacts between the users and supplying companies have been established.
- 5. The fourth element is the flexibility in defining locations for installations. As the implementation of the projects progressed, and the company supplying the solar pumps detected that some of the planned areas didn't have the required water capacity, new solutions needed to be found, and either smaller pumps were installed or the installations were moved to other locations with the capacity of water needed.

6. Budget information

Table 1: Financing plan summary

\$	Project Preparation	Project	Total (\$)
Financing (GEF / others)	81,553.28	2,851,384.00	2,932,937.28
Co-financing (Cash and In-kind)	-	11,284,997	11,284,997
Total (\$)	81,553.28	14,136,381	14,217,934.28

Source: Project document / progress report

Table 2: Financing plan summary - Outcome breakdown³

Project outcomes	Donor (GEF/other) (\$)	Co-Financing (\$)	Total (\$)
Establishment of a conducive policy and regulatory environment	139,664	282,211	421,875
Capacity building and knowledge management	274,600	399,000	673,600
3. Technology demonstration and scaling up	2,227,340	9,914,405	12,141,745
4. Monitoring and Evaluation	74,000	152,000	226,000
5. Project management	135,780	537,381	673,161
Total (\$)	2,851,384	11,284,997	14,136,381

Source: Project document / progress report

³ Source: Project document.

Table 3: Co-Financing source breakdown

Name of Co-financier (source)	In-kind	Cash	Total Amount (\$)
UNIDO	140,000	60,000	200,000
National Sustainable Development Fund (FNDS)	-	1,633,330	1,633,330
National Directorate for Rural Development (DNDR)	300,000	-	300,000
SACREEE	200,000	60,000	260,000
BCI	-	4,000,000	4,000,000
ADPP, Ajuda de Desenvolvimento do Povo para o Povo	-	500,000	500,000
JFS, João Ferreira dos Santos, Agro-Industrial Group	-	191,667	191,667
ELECTROTECNICA	700,000	H	700,000
FENAGRI	-	2,500,000	2,500,000
Chamber of Commerce of Mozambique	-	1,000,000	1,000,000
Total Co-financing (\$)	1,340,000	9,944,997	11,284,997

Source: Project document

Table 4: UNIDO budget execution (Grants 2000003222 (PPG phase) & 2000003742)

			Released Budget	Expenditure	Funds Available
Grant	Year		USD	USD	USD
2000003222	2015	Staff & Intern Consultants		0.00	0.00
2000003222	2015	Local travel	0.00		0.00
2000003222	2015	Nat.Consult./Staff	3,332.60	3,332.60	0.00
2000003222	2015	Contractual Services	40,000.00	40,000.00	0.00
2000003222	2015	Other Direct Costs	6.54	6.54	0.00
2000003222	2015	Result	43,339.14	43,339.14	0.00
2000003222	2016	Staff & Intern Consultants		0.00	0.00
2000003222	2016	Local travel	4,593.44	4,593.44	0.00
2000003222	2016	Nat.Consult./Staff	8,742.75	8,742.75	0.00
2000003222	2016	Contractual Services	24,000.00	24,000.00	0.00
2000003222	2016	Other Direct Costs	1,042.50	1,042.50	0.00
2000003222	2016	Result	38,378.69	38,378.69	0.00
2000003222	2017	Local travel	0.00		0.00
2000003222	2017	Nat.Consult./Staff	0.00		0.00
2000003222	2017	Contractual Services	380.47	380.47	0.00

2000003222	2017	Other Direct Costs	0.00	0.00	0.00
2000003222	2017	Result	380.47	380.47	0.00
2000003222	2018	Local travel	-594.10	-594.10	0.00
2000003222	2018	Other Direct Costs	49.08	49.08	0.00
2000003222	2018	Result	-545.02	-545.02	0.00
2000003222	Result		81,553.28	81,553.28	0.00
2000003742	2017	Local travel	0.00		0.00
2000003742	2017	Nat.Consult./Staff	0.00		0.00
2000003742	2017	Contractual Services	0.00		0.00
2000003742	2017	Equipment	0.00		0.00
2000003742	2017	Other Direct Costs	0.00		0.00
2000003742	2017	Result	0.00		0.00
2000003742	2018	Staff & Intern Consultants	7.29	7.29	0.00
2000003742	2018	Local travel	2,857.18	2,857.18	0.00
2000003742	2018	Nat.Consult./Staff	41,177.62	41,177.62	0.00
2000003742	2018	Contractual Services	20,000.00	20,000.00	0.00
2000003742	2018	Train/Fellowship/Study	1,871.30	1,871.30	0.00
2000003742	2018	Premises	550.26	550.26	0.00
2000003742	2018	Equipment	195,097.26	195,097.26	0.00
2000003742	2018	Other Direct Costs	4,836.02	4,836.02	0.00
2000003742	2018	Result	266,396.93	266,396.93	0.00
2000003742	2019	Staff & Intern Consultants	34,546.71	34,546.71	0.00
2000003742	2019	Local travel	22,844.79	22,844.79	0.00
2000003742	2019	Nat.Consult./Staff	63,440.22	63,440.22	0.00
2000003742	2019	Contractual Services	1,001,142.70	1,001,142.70	0.00
2000003742	2019	Train/Fellowship/Study	0.00		0.00
2000003742	2019	International Meetings	3,101.76	3,101.76	0.00
2000003742	2019	Premises	0.00		0.00
2000003742	2019	Equipment	41,690.43	41,690.43	0.00
2000003742	2019	Other Direct Costs	5,369.55	5,369.55	0.00
2000003742	2019	Result	1,172,136.16	1,172,136.16	0.00
2000003742	2020	Staff & Intern Consultants	46,117.27	46,117.27	0.00
2000003742	2020	Local travel	15,872.64	15,872.64	0.00
2000003742	2020	Nat.Consult./Staff	95,507.41	95,507.41	0.00
2000003742	2020	Contractual Services	260,428.77	260,428.77	0.00
2000003742	2020	Train/Fellowship/Study	0.00		0.00
2000003742	2020	International Meetings	0.00		0.00
2000003742	2020	Premises	0.00		0.00

2000002742		Equipment	663.76	663.76	0.00
2000003742	2020	Other Direct Costs	11,114.90	11,114.90	0.00
2000003742	2020	Result	429,704.75	429,704.75	0.00
2000003742	2021	Staff & Intern Consultants	52,708.73	52,708.73	0.00
2000003742	2021	Local travel	2,699.08	2,699.08	0.00
2000003742	2021	Nat.Consult./Staff	132,349.07	132,349.07	0.00
2000003742	2021	Contractual Services	-267.17	-267.17	0.00
2000003742	2021	Train/Fellowship/Study	0.00		0.00
2000003742	2021	International Meetings	0.00		0.00
2000003742	2021	Premises	0.00		0.00
2000003742	2021	Equipment	2,368.44	2,368.44	0.00
2000003742	2021	Other Direct Costs	18,617.59	18,617.59	0.00
2000003742	2021	Result	208,475.74	208,475.74	0.00
2000003742	2022	Staff & Intern Consultants	52,382.04	52,382.04	0.00
2000003742	2022	Local travel	14,238.87	14,238.87	0.00
2000003742	2022	Nat.Consult./Staff	90,301.66	90,301.66	0.00
2000003742	2022	Contractual Services	257,503.34	257,503.34	0.00
2000003742	2022	Train/Fellowship/Study	1,135.82	1,135.82	0.00
2000003742	2022	International Meetings	0.00		0.00
2000003742	2022	Premises	0.00		0.00
2000003742	2022	Equipment	9,096.33	9,096.33	0.00
2000003742	2022	Other Direct Costs	9,663.69	9,663.69	0.00
2000003742	2022	Result	434,321.75	434,321.75	0.00
2000003742	2023	Staff & Intern Consultants	131,826.07	68,833.59	62,992.48
2000003742	2023	Local travel	10,664.47	4,912.13	5,752.34
2000003742	2023	Nat.Consult./Staff	28,950.77	91,616.96	-62,666.19
2000003742	2023	Contractual Services	159,150.00	-153.95	159,303.95
2000003742	2023	Train/Fellowship/Study	-69.87		-69.87
2000003742	2023	Premises	504.90		504.90
2000003742	2023	Equipment	3,838.43	0.00	3,838.43
2000003742	2023	Other Direct Costs	5,483.90	86.91	5,396.99
2000003742	2023	Result	340,348.67	165,295.64	175,053.03
2000003742	Result		2,851,384.00	2,676,330.97	175,053.03
Overall Result			2,932,937.28	2,757,884.25	175,053.03

Source: UNIDO Project Management database as of 16 May, 2023

II. Scope and purpose of the evaluation

The purpose of the evaluation is to independently assess the project to help UNIDO improve performance and results of ongoing and future programmes and projects. The terminal evaluation (TE) will cover the whole duration of the project from its starting date in 10/26/2015 to the estimated completion date in 10/24/2023.

The evaluation has two specific objectives:

- (i) Assess the project performance in terms of relevance, effectiveness, efficiency, coherence, sustainability and progress to impact; and
- (ii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing projects by UNIDO.

III. Evaluation approach and methodology

The TE will be conducted in accordance with the Charter of the Office of Evaluation and Internal Oversight⁴, the Evaluation Policy⁵, the UNIDO Guidelines for the Technical Cooperation Project and Project Cycle⁶, and UNIDO Evaluation Manual.

In addition, the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluations, the GEF Monitoring and Evaluation Policy and the GEF Minimum Fiduciary Standards for GEF Implementing and Executing Agencies will be applied.

The evaluation will be carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project will be informed and consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Independent Evaluation Unit (ODG/EIO/IED) on the conduct of the evaluation and methodological issues.

The evaluation will use a theory of change approach and mixed methods to collect data and information from a range of sources and informants. It will pay attention to triangulating the data and information collected before forming its assessment. This is essential to ensure an evidence-based and credible evaluation, with robust analytical underpinning.

The theory of change will identify causal and transformational pathways from the project outputs to outcomes and longer-term impacts, and drivers as well as barriers to achieve them. The learning from this analysis will be useful to feed into the design of the future projects so that the management team can effectively manage them based on results.

1. Data collection methods

Following are the main instruments for data collection:

- (a) **Desk and literature review** of documents related to the project, including but not limited to:
 - The original project document, monitoring reports (such as progress and financial reports, midterm review report, output reports, back-to-office mission report(s), end-of-contract report(s) and relevant correspondence.
 - Notes from the meetings of committees involved in the project.

⁴ UNIDO (2020). Director General's Bulletin: Charter of the Office of Evaluation and Internal Oversight (DGB/2020/11, 11 December 2020)

⁵ UNIDO. (2018). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/2018/08)

⁶ UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006)

- (b) **Stakeholder consultations** will be conducted through structured and semi-structured interviews and focus group discussion. Key stakeholders to be interviewed include:
 - · UNIDO Management and staff involved in the project; and
 - Representatives of donors, counterparts and stakeholders.
- (c) Field visit to project sites in Mozambique
- (d) Online data collection methods: will be used to the extent needed and possible

2. Evaluation key questions and criteria

The key evaluation questions are the following:

- (a) How well has the project performed in terms of relevance, coherence, effectiveness, efficiency, and sustainability?
- (b) What have been the project's key results (outputs, outcome)? To what extent have the expected results been achieved or are likely to be achieved?
- (c) To what extent does the project generate or is expected to generate higher-level effects (impact)?
- (d) To what extent will the achieved results and benefits be sustained after completion of the project (sustainability)?
- (e) What are the key drivers and barriers to achieving the long-term objectives? To what extent has the project helped put in place the conditions likely to address the drivers, overcome barriers and contribute to the long-term objectives?
- (f) Has the project adequately considered/addressed gender in its design and intervention?
- (g) Has the project adequately considered/addressed environmental and social safeguards, human rights and disability in its design and intervention?
- (h) What are the key risks (e.g. in terms of financial, socio-political, institutional and environmental risks) and how may these risks affect the continuation of results after the project ends?
- (i) Have recommendations from the mid-term evaluation been addressed and implemented?
- (j) What lessons can be drawn from the successful and unsuccessful practices in designing, implementing and managing the project?

The evaluation will assess the likelihood of sustainability of the project results after the project completion. The assessment will identify key risks (e.g. in terms of financial, socio-political, institutional and environmental risks) and explain how these risks may affect the continuation of results after the project ends. Table 5 below provides the key evaluation criteria to be assessed by the evaluation. The details questions to assess each evaluation criterion are in annex 2.

Table 5: Project evaluation criteria

<u>#</u>	Evalua	tion criteria	Mandatory rating
Α	Progre	ess to Impact	Yes
В	Projec	t design	Yes
1	•	Overall design	Yes
2	•	Project results framework/log frame	Yes
С	Project performance and progress towards		Yes
	results	3	
1	•	Relevance	Yes
2	•	Coherence	Yes
3	•	Effectiveness	Yes
4	•	Efficiency	Yes
5	•	Sustainability of benefits	Yes

D	Gender mainstreaming	Yes
Е	Project implementation management	Yes
1	 Results-based management (RBM) 	Yes
2	 Monitoring and Evaluation, Reporting 	Yes
F	Performance of partners	
1	 UNIDO 	Yes
2	 National counterparts 	Yes
3	 Implementing partner (if applicable) 	Yes
4	 Donor 	Yes
G	Environmental and Social Safeguards (ESS), Disability and Human Rights	Yes
1	 Environmental Safeguards 	Yes
2	 Social Safeguards, Disability and Human Rights 	Yes
Н	Overall Assessment	Yes

Other Assessments required by the GEF for GEF-funded projects:

The terminal evaluation will assess the following topics, for which ratings are not required:

- a. **Need for follow-up**: e.g. in instances financial mismanagement, unintended negative impacts or risks.
- b. Materialization of co-financing: e.g. the extent to which the expected co-financing materialized, whether co-financing was administered by the project management or by some other organization; whether and how shortfall or excess in co-financing affected project results.
- c. Environmental and Social Safeguards⁷: appropriate environmental and social safeguards were addressed in the project's design and implementation, e.g. preventive or mitigation measures for any foreseeable adverse effects and/or harm to environment or to any stakeholder.

3. Rating system

In line with the practice adopted by many development agencies, the UNIDO Independent Evaluation Unit uses a six-point rating system, where 6 is the highest score (highly satisfactory) and 1 is the lowest (highly unsatisfactory) as per **Error! Reference source not found.**.

Table 6. Project rating criteria

Definition Score Category Level of achievement presents no shortcomings (90% -Highly satisfactory 100% achievement rate of planned expectations and targets). Satisfactory Level of achievement presents minor shortcomings (70% -**SATISFACTORY** 89% achievement rate of planned expectations and targets). Moderately Level of achievement presents moderate shortcomings (50% - 69% achievement rate of planned expectations and satisfactory targets).

⁷ Refer to GEF/C.41/10/Rev.1 available at: http://www.thegef.org/sites/default/files/council-meetingdocuments/C.41.10.Rev_1.Policy_on_Environmental_and_Social_Safeguards.Final%20of%20Nov%2018.pdf

3	Moderately unsatisfactory	Level of achievement presents some significant shortcomings (30% - 49% achievement rate of planned expectations and targets).	
2	Unsatisfactory	Level of achievement presents major shortcomings (10% - 29% achievement rate of planned expectations and targets).	UNSATISFACTORY
1	Highly unsatisfactory	Level of achievement presents severe shortcomings (0% - 9% achievement rate of planned expectations and targets).	

IV. Evaluation process

The evaluation will be conducted from July to October 2023. The evaluation will be implemented in various phases which are not strictly sequential, but in many cases iterative, conducted in parallel and partly overlapping:

- i. Inception phase: The evaluation team will prepare the inception report providing details on the methodology for the evaluation and include an evaluation matrix with specific issues for the evaluation; the specific site visits will be determined during the inception phase, taking into consideration the findings and recommendations of the mid-term review.
- ii. Desk review and data analysis;
- iii. Interviews, survey and literature review;
- iv. Country visits; debriefing to key stakeholders in the field;
- v. Data analysis and report writing, (virtual) debriefing to staff at UNIDO HQ
- vi. Issuance and publication of final report and dissemination of evaluation results (incl. Management Response Sheet) by EIO/IEU

V. Time schedule and deliverables

The evaluation is scheduled to take place from July to October 2023. The evaluation field mission is tentatively planned for 04-15 September 2023. At the end of the field mission, there will be a presentation of the preliminary findings for all stakeholders involved in this project in Mozambique. The tentative timelines are provided in **Error! Reference source not found.**

After the evaluation field mission, the evaluation team leader will either visit UNIDO HQ for debriefing and presentation of the preliminary findings of the terminal evaluation or conduct it on-line. The draft TE report will be submitted 4 to 6 weeks after the end of the mission. The draft TE report is to be shared with the UNIDO PM, UNIDO Independent Evaluation Unit, the UNIDO GEF Coordinator and GEF OFP and other stakeholders for receipt of comments. The ET leader is expected to revise the draft TE report based on the comments received, edit the language and form and submit the final version of the TE report in accordance with UNIDO ODG/EIO/EID standards.

Table 7: Tentative timelines

Timelines	Tasks
Two weeks after contract completion (July 2023)	Desk review and writing of inception report
Shortly before the field mission (August 2023)	Briefing with UNIDO project manager and the project team based in Vienna through Skype

September 2023	Field visit to Mozambique
Upon completion of field mission (September 2023) Latest 4 weeks before the end of the assignment	Debriefing in Vienna Preparation of first draft evaluation report
Two weeks after submission of draft evaluation report	Internal peer review of the report by UNIDO's Independent Evaluation Unit and other stakeholder comments to draft evaluation report
October 2023	Final evaluation report

VI. Evaluation team composition

The evaluation team will be composed of one international evaluation consultant acting as the team leader and one national evaluation consultant. The evaluation team members will possess relevant strong experience and skills on evaluation management and conduct together with expertise and experience in innovative clean energy technologies. Both consultants will be contracted by UNIDO.

The tasks of each team member are specified in the job descriptions annexed to these terms of reference. The ET is required to provide information relevant for follow-up studies, including terminal evaluation verification on request to the GEF partnership up to three years after completion of the terminal evaluation.

According to UNIDO Evaluation Policy, members of the evaluation team must not have been directly involved in the design and/or implementation of the project under evaluation.

The UNIDO Project Manager and the project team in UNIDO's HQ and Maputo office will support the evaluation team. The UNIDO GEF Coordinator and GEF OFP(s) will be briefed on the evaluation and provide support to its conduct. GEF OFP(s) will, where applicable and feasible, also be briefed and debriefed at the start and end of the evaluation mission.

An evaluation manager from UNIDO Independent Evaluation Unit will provide technical backstopping to the evaluation team and ensure the quality of the evaluation. The UNIDO Project Manager and national project teams will act as resourced persons and provide support to the evaluation team and the evaluation manager.

VII. Reporting

Inception report

This Terms of Reference (ToR) provides some information on the evaluation methodology, but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager, the Team Leader will prepare, in collaboration with the national consultant, an inception report that will operationalize the ToR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible UNIDO Evaluation Manager.

The Inception Report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework ("evaluation matrix"); division of work between the International Evaluation Consultant and

national consultant; mission plan, including places to be visited, people to be interviewed and possible surveys to be conducted and a debriefing and reporting timetable⁸.

Evaluation report format and review procedures

The draft report will be delivered to UNIDO's Independent Evaluation Unit (the suggested report outline is in Annex 4) and circulated to UNIDO staff and national stakeholders associated with the project for factual validation and comments. Any comments or responses, or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to UNIDO's Independent Evaluation Unit for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback, and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The ET will present its preliminary findings to the local stakeholders at the end of the field visit and take into account their feed-back in preparing the evaluation report. A presentation of preliminary findings will take place at UNIDO HQ after the field mission.

The TE report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in annex 4.

VIII. Quality assurance

All UNIDO evaluations are subject to quality assessments by UNIDO Independent Evaluation Unit. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process of UNIDO Independent Evaluation Unit, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report by UNIDO's Independent Evaluation Unit).

The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as Annex 5. The applied evaluation quality assessment criteria are used as a tool to provide structured feedback. UNIDO Independent Evaluation Unit should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final evaluation report are reviewed by UNIDO Independent Evaluation Unit, which will submit the final report to the GEF Evaluation Office and circulate it within UNIDO together with a management response sheet.

⁸ The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO ODG/EVQ/IEV.

Annex 1: Project Logical Framework

Results	Indicators	Baseline and Targets	Means of Verification	Assumptions and Risks		
Objective						
To promote market- based dissemination of integrated renewable energy systems for productive uses in rural areas of Mozambique	Incremental avoided or reduced CO2eq emissions (tonnes of CO2eq)	Baseline: No emissions reductions would occur if the current practices are not changed in Mozambique, which are mainly based on the use of fossil fuels. Target: 7,760 tons of CO2eq emissions avoided or reduced during the technology lifetime.	GEF climate change mitigation tracking tool Demonstration site's assessments	A: Data to calculate CO2eq emission reductions are available A: Current support and interest from private sector in developing integrated RE systems in productive sectors of rural areas is sustained R: Economic, financial or political crisis threaten the sustainability of the project and prevent the development of integrated RE systems in rural areas		
Component 1 Establishn	nent of a conducive po	licy and regulatory environment				
Outcome 1.1. Policy and regulatory environment promoting integrated renewable energy systems in rural areas established	Number of modified, updated and/or new policies for private sector engagement in the integration of RE systems in rural areas developed and proposed by the Taskforce Number of new RE standards adopted by INNOQ	Baseline: Current policies and regulations are insufficient to incentivize the integration of RE systems in rural areas and to promote the involvement of the private sector in this type of projects Target: Policies and regulations are improved in order to incentivize the integration of RE systems in rural areas with the involvement of the private sector	 Developed and approved policies, regulations, guidelines and standards available in the Official Bulletin of Mozambique or similar official publications Final Project Evaluation 	A: Sustained government support to agreed activities and involvement of government bodies including MITADER, MIREME, FUNAE, FNDS, CNELEC (future ARENE), and DINA, among others R: Economic and political instability threatens the development of the project and the creation of new policies and regulations		
Outputs:						
Output 1.1.1. Policy framework for private	Number of established	Baseline: Currently there is no team specifically dedicated to the development of policies and	Official communication from the Government on the creation of the Taskforce	A: Sustained government support for the creation of the Taskforce and interest from the several		

sector engagement integrated renewable energy systems in rural areas adapted and presented for adoption	"Policy and Regulatory Taskforces" Number of Workshops conducted on Policy and Regulatory Framework Modification Number of women participating in the Taskforce	regulations aiming at the integration of RE systems in rural areas with the engagement of the private sector. Targets: A Taskforce is established One Workshop conducted At least 40% of the Taskforce should be women	 Workshop reports or meeting minutes Interviews to MITADER 	government bodies in being part of it including MITADER, MIREME, FUNAE, FNDS, CNELEC (future ARENE), and DINA, among others R: Economic and political instability threatens the development of the project R: Lack of interest from some government bodies to participate in the Taskforce R: Lack of interest from women to participate in the Taskforce
Output 1.1.2. Guidelines on private sector involvement in renewable energy projects in rural areas developed and adopted	Number of consultation campaigns conducted Number of consulted private sector actors Number of modified, updated and/or new guidelines on private sector involvement in RE projects in rural areas developed and presented to authorities	Baseline: No specific guidelines to address the private sector involvement in RE projects in rural areas exist Target: At least 1 consultation campaign conducted considering gender dimensions At least 10 private sector actors should be approached during the consultation campaign At least 1 guideline should be generated considering gender dimensions	 Findings from the consultation campaign to private sector actors Issued guidelines to be used by private sector actors 	A: There is interest from the private sector to get involved in RE projects in rural areas R: Insufficient resources to conduct a consultation campaign R: Low response from private sector actors during consultation campaign reduces the collected data
Output 1.1.3. Standards for typical integrated renewable energy systems for rural areas developed and adopted	Number of modified, updated and/or new standards for typical integrated RE systems for rural areas developed and presented	Baseline: Insufficient capacity and knowledge of universities and vocational training institutions on RE integrated systems Target: Ten (10) training sessions targeting twenty five (25)	 Training sessions registries and records Interviews to targeted financial institutions and other private sector organizations 	A: There is interest from universities and vocational training institutions in receiving tailor-made training and knowledge on RE R: Insufficient infrastructure or tools to

	Number of dissemination workshops	academicians from universities and vocational training institutions on integrated RE systems At least 40% of participants should be weener.		successfully deliver the training sessions		
Component 2 Capacity be	be women Component 2 Capacity building and knowledge management					
Outcome 2.1. Capacity of key players strengthened and information available for market enablers and players	Number of key players with enhanced capacity on specific areas of RE technologies	Baseline: Insufficient capacity and knowledge among key players Targets: Selected key government institutions, financial institutions as well as universities and vocational training institutions have the required knowledge to analyze, promote, develop and facilitate RE projects.	 Training sessions registries and records Government websites, library or records Final Project Evaluation 	A: There is interest from the GoM in receiving tailor-made training and knowledge on RE R: Limited resources from local institutions to provide support to carry out the capacity building in terms of infrastructure, space, training materials and tools.		
Outputs						
Output 2.1.1. Five training sessions for fifty (50) government officials at both national and provincial levels on RE integrated systems conducted	Number of training sessions delivered to government officials on RE integrated systems Number of attendees (government officials at both national and provincial levels) Percentage of women attending the training sessions for government officials	Baseline: Insufficient capacity and knowledge among government officials on RE integrated systems Target: Five (5) training sessions delivered to fifty (50) government officials at both national and provincial levels on RE integrated systems. At least 40% of participants should be women	 Training sessions registries and records Interviews to targeted government officials 	A: There is interest from the GoM in receiving tailor-made training and knowledge on RE related information R: Insufficient infrastructure or tools to successfully deliver the training sessions		
Output 2.1.2. Ten training sessions targeting 250 participants from financial institutions, and private sector	Number of training sessions delivered on RE integrated	Baseline: Insufficient capacity and knowledge of financial institutions and other private sector	Training sessions registries and records	A: There is interest from the financial institutions and other private sector organizations in receiving tailor-made training and		

organizations on integrated renewable energy systems conducted	systems addressed to financial institutions and other private sector organizations Number of attendees from financial institutions Number of attendees from other private sector organizations Percentage of women attending the training sessions from financial institutions or other private sector organizations	organizations on RE integrated systems Target: Ten (10) training sessions targeting two hundred and fifty (250) participants from financial institutions and other private sector organizations on integrated RE systems At least 20% of participants should be women	Interviews to targeted financial institutions and other private sector organizations	knowledge on RE R: Insufficient infrastructure or tools to successfully deliver the training sessions
Output 2.1.3. Training of universities and vocational training institutions staff (25) on various aspects of integrated RE systems on a train-the-trainer basis conducted	Number of training sessions delivered on RE integrated systems addressed to universities and vocational training institutions Number of trainers trained from universities Number of trainers trained from vocational training institutions Number of women trainers trained	Baseline: Insufficient capacity and knowledge of universities and vocational training institutions on RE integrated systems Target: Ten (10) training sessions targeting twenty five (25) academicians from universities and vocational training institutions on integrated RE systems At least 40% of participants should be women	 Training sessions registries and records Interviews to targeted financial institutions and other private sector organizations 	A: There is interest from universities and vocational training institutions in receiving tailor-made training and knowledge on RE R: Insufficient infrastructure or tools to successfully deliver the training sessions

Component 3 Technolog	y demonstration and	scaling up		
Outcome 3.1. Integrated RE systems demonstrated	Number of demonstration projects that integrate RE systems, in rural areas Number of scaled-up projects in rural areas Percentage women using the financial mechanism	Baseline: No demonstration projects showing the bankability of RE integrated systems in rural areas exist Target: At least four (4) demonstration projects successfully conducted Install solar water pumping systems for irrigation Installing biogas digesters for agro-food processing in rural areas Gender-sensitive financial mechanism is used by women	 Evaluating reports of demonstration projects Project Reports or information from MITADER /MIREME Final Project Evaluation 	A: There is interest from project developers and cofinancers in carrying out demonstration projects R: Economic and political instability threatens the development of the demonstration projects
Outputs				
Output 3.1.1. Demonstration projects on integrated renewable energy systems with about 250kW of installed capacity implemented in selected productive sectors with high visibility and replication potential	Number of demonstration projects on integrated RE systems installed in rural areas	Baseline: No demonstration projects exist to show the bankability of integrated RE systems in productive sectors of rural areas Target: Install demonstration projects focusing in RE systems in productive sectors of rural areas to achieve 250kW of capacity	 Project Reports or information from MITADER/MIREME Financial institutions products offering 	A: There is interest from financial institutions to offer financial services to customers in rural areas R: High perceived risk hinders the active involvement of financial institutions
Outputs				
Output 3.2.1. Financial mechanism established to support the installations of solar water pumping systems for irrigation and Waste- to-Energy projects for agro-food processing in rural areas to achieve 1.2MW of installed capacity	Number of solar water pumping installations for irrigation in rural areas Number of biogas digesters for agro-food processing	Baseline: No appropriate financial mechanism is in place to drive the installation of solar water pumping systems or biogas digesters in rural areas Target: Install thirty (30) solar water pumping systems and thirty (30) biogas digesters for agro-food	 Financial institutions products offering Project Reports or information from MITADER / MIREME 	A: There is interest from financial institutions and sufficient promotion from the GoM to participate in the establishment of a financial mechanism A: Local capabilities to operate the financial mechanism are established

	installed in rural areas Gender-sensitive financial mechanism developed	processing in rural areas to achieve 1.2MW of capacity The financial mechanism design include a gender approach		R. Lack of interest from the private sector in investing in RE projects R: Economic and political instability threatens the development of the financial mechanism	
Outcome 3.3. Increased confidence and awareness of technical feasibility and commercial viability of integrated RE systems	Percentage of project's results disseminated	Baseline: No demonstration projects exists to show the bankability of integrated RE systems in productive sectors of rural areas Target: 100% of projects' results are publicly disseminated through at least 1 dissemination campaign	Dissemination campaign strategy and report	A: After being informed, relevant stakeholders are interested and confident on the benefits of integrating RE systems in rural areas R: Information is not the main barrier for the development of RE systems in rural areas.	
Outputs					
Output 3.3.1. Demonstration and investment projects are independently evaluated and results widely disseminated	Percentage of evaluated projects (number of evaluated projects over total number projects installed) Percentage of projects whose evaluated results were publicly disseminated (by any means of communication) Number of dissemination campaigns	Baseline: No demonstration projects exists to show the bankability of integrated RE systems in productive sectors of rural areas Target: 100% of installed projects are evaluated 100% of projects' results are publicly disseminated At least 1 dissemination campaign is conducted with a workshop/meeting specifically targeting rural women	 Results from evaluating processes Project Reports or information from MITADER / MIREME Dissemination Campaign Media (radio, TV, billboards, etc.) 	A: At least one demonstration project is installed R: Economic and political instability threatens the development and installation of projects	
Component 4 Monitoring and Evaluation					
Outcome 4.1. Project progress towards objectives continuously monitored and evaluated	Number of progress and evaluation reports	Baseline: No baseline exists Target:	 Project progress reports, mid- project evaluation and project terminal evaluation reports 	A: Continued support by the project stakeholders to successfully monitor and evaluate the project	

		Project effectively monitored and evaluated		R: Economic and political instability threatens the development and installation of projects
Outputs				
Output 4.1.1. Mid-term review and terminal evaluation carried out	Number of evaluation reports carried out	Baseline: No baseline exists Target: 1 mid-term review and one terminal evaluation conducted	 Mid-project evaluation and project terminal evaluation reports 	A: Continued support by the project stakeholders to successfully evaluate the project R: Economic and political instability threatens the development and installation of projects
Output 4.1.2. Project progress monitored, documented and recommended actions formulated	Number of progress reports developed	Baseline: No baseline exists. Target: At least a progress report developed once a year	Project progress reports	A: Continued support by the project FUN to successfully monitor the project R: Economic and political instability threatens the development and installation of projects

Annex 2: Detailed questions to assess evaluation criteria: See Annex 2 of the UNIDO Evaluation Manual

Annex 3: Job descriptions



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International evaluation consultant, team leader
Main Duty Station and Location:	Home-based
Missions:	Missions to Maputo, Mozambique
Start of Contract (EOD):	1 July 2023
End of Contract (COB):	20 October 2023
Number of Working Days:	35 working days spread over the above mentioned period

1. ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Unit (EIO/IEU) is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. EIO/IEU is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

2. PROJECT CONTEXT

The project focuses on increasing renewable energy participation through a market-based approach by means of adopting solar PV and Waste-to-Energy solutions in small to medium-scale farms and agro-food processing facilities. The added value of this project will be to promote these technologies in small and medium-scale businesses, particularly in rural areas. Without GEF intervention, these technologies are unlikely to have widespread uptake, even where useful organic waste streams or sufficient solar resources are available. The project seeks to act as a trigger to demonstration and rapid replication in the integration of RE technology. GEF funding is used to support all outcomes of the project, especially the ones involving support from international consultants, the implementation of investment projects, and project evaluation activities.

Through its 4 components, the project will support the market-based adoption of integrated renewable energy systems (solar PV for irrigation and waste-to-energy) in small to medium-scale farms and rural agrofood processing industries in Mozambique. The components are the following:

- Establishment of a conducive policy and regulatory environment: the project will enhance the regulatory and policy environment in order to promote the involvement of the private sector in the development of integrated RE systems for rural areas;
- Capacity building and knowledge management: the project will improve and develop the
 capabilities and knowledge of market players and enablers in the RE sector including relevant
 government officials (national and provincial level) as well as representatives from financial
 institutions, private sector, universities and vocational training institutions;
- 3. Technology demonstration and scaling up: the project will demonstrate the technical and financial feasibility of RE technologies in agricultural activities located in rural areas, specifically: solar PV water pumping and biogas/biomass usage in agro-food processing industries through the installation of demonstration projects. The objectives of these projects, besides delivering GHG emission reductions, include generating case studies and best practices on the use of RE technologies in agro-food processing industries that have high replication potential across Mozambique. In this regard, UNIDO/GEF is offering a grant to support these demonstration projects in rural Mozambique to mitigate the high up-front costs required for such investment projects; and
- 4. Monitoring and Evaluation: The objectives of this component are to (a) establish and conduct adequate and systematic M&E and reporting of all project indicators following UNIDO and GEF procedures to ensure successful project implementation; (b) establish a dedicated website for the project; and (c) ensure that the dissemination programme is implemented and project milestones/reports etc., are regularly posted on the website.

DUTIES AND RESPONSIBILITIES

As such, the consultant is expected to evaluate the project according to the Terms of Reference. S/he will act as leader of the evaluation and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Independent Evaluation Unit. The Consultant will be expected to carry out the following tasks/duties:

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data) Define technical issues and questions to be addressed by the national technical evaluator prior to the field visit Determine key data to collect in the field and adjust the key data collection instrument if needed In coordination with the project manager, the project management team and the	 Adjusted table of evaluation questions, depending on country specific context; Draft list of stakeholders to interview during the field missions. Identify issues and questions to be addressed by the local technical expert 	5 days	Home- based

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
national technical evaluator, determine the suitable sites to be visited and stakeholders to be interviewed			
2. Prepare an inception report which streamlines the specific questions to address the key issues in the TOR, specific methods that will be used and data to collect in the field visits, confirm the evaluation methodology, draft theory of change, and tentative agenda for field work. Provide guidance to the national evaluator to prepare initial draft of output analysis and review technical inputs prepared by national evaluator, prior to field mission.	 Draft theory of change and Evaluation framework to submit to the Evaluation Manager for clearance Guidance to the national evaluator to prepare output analysis and technical reports 	5 days	Home based
3. Briefing with the UNIDO Independent Evaluation Unit, project managers and other key stakeholders at UNIDO HQ (included is preparation of presentation).	 Detailed evaluation schedule with tentative mission agenda (incl. list of stakeholders to interview and site visits); mission planning Division of evaluation tasks with the National Consultant 	2 day	Through an on-line channel (e.g., Zoom or Microsoft teams)
Conduct field mission to Mozambique in September 2023 ⁹ .	Conduct meetings with relevant project stakeholders, beneficiaries, the GEF Operational Focal Point (OFP), etc. for the collection of data and clarifications Agreement with the National Consultant on the structure and content of the evaluation	10 days	(specific project site to be identified at
	report and the distribution of writing tasks • Evaluation presentation of the evaluation's preliminary findings, conclusions and recommendations to stakeholders in the country,		inception phase)

The exact mission dates will be decided in agreement with the Consultant, UNIDO HQ, and the country counterparts.

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
	including the GEF OFP, at the end of the mission		
5. Present overall findings and recommendations to the stakeholders at UNIDO HQ	After field mission(s): Presentation slides, feedback from stakeholders obtained and discussed	2 day	Home- based
6. Prepare the evaluation report, with inputs from the National Consultant, according to the TOR			
Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report	Draft evaluation report	8 days	Home- based
Share the evaluation report with UNIDO HQ and national stakeholders for feedback and comments.			
7. Revise the draft project evaluation report based on comments from UNIDO Independent Evaluation Unit and stakeholders and edit the language and form of the final version according to UNIDO standards.	Final evaluation report	3 day	Home- based
	TOTAL	35 days	

REQUIRED COMPETENCIES

Core values:

- 1. Integrity
- 2. Professionalism
- 3. Respect for diversity

Core competencies:

- 1. Results orientation and accountability
- 2. Planning and organizing
- 3. Communication and trust
- 4. Team orientation
- 5. Client orientation
- 6. Organizational development and innovation

Managerial competencies (as applicable):

- 1. Strategy and direction
- 2. Managing people and performance
- 3. Judgement and decision making
- 4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced degree in environment, energy, engineering, development studies or related areas.

Technical and Functional Experience:

- A Minimum of 15 years' practical experience in evaluation of development projects and programmes, including experience at the international level involving technical cooperation in developing countries. Experience in the evaluation of GEF projects and knowledge of UNIDO activities an asset. Exposure to the needs, conditions and problems in developing countries.
- Good working knowledge in environmental management
- Knowledge about GEF operational programs and strategies and about relevant GEF policies such as those on project life cycle, M&E, incremental costs, and fiduciary standards
- Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks
- Working experience in developing countries

Languages: Fluency in written and spoken English is required. Knowledge of Portuguese highly desirable.

All reports and related documents must be in English and presented in electronic format.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Unit.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	National evaluation consultant
Main Duty Station and Location:	Home-based
Mission/s to:	Travel to potential sites within Mozambique
Start of Contract:	1 July 2023
End of Contract:	20 October 2023
Number of Working Days:	22 days spread over the above mentioned period

ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Unit (EIO/IEU) is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. EIO/IEU is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

PROJECT CONTEXT

The project focuses on increasing renewable energy participation through a market-based approach by means of adopting solar PV and Waste-to-Energy solutions in small to medium-scale farms and agro-food processing facilities. The added value of this project will be to promote these technologies in small and medium-scale businesses, particularly in rural areas. Without GEF intervention, these technologies are unlikely to have widespread uptake, even where useful organic waste streams or sufficient solar resources are available. The project seeks to act as a trigger to demonstration and rapid replication in the integration of RE technology. GEF funding is used to support all outcomes of the project, especially the ones involving support from international consultants, the implementation of investment projects, and project evaluation activities.

Through its 4 components, the project will support the market-based adoption of integrated renewable energy systems (solar PV for irrigation and waste-to-energy) in small to medium-scale farms and rural agrofood processing industries in Mozambique. The components are the following:

1. **Establishment of a conducive policy and regulatory environment:** the project will enhance the regulatory and policy environment in order to promote the involvement of the private sector in the

- development of integrated RE systems for rural areas;
- Capacity building and knowledge management: the project will improve and develop the
 capabilities and knowledge of market players and enablers in the RE sector including relevant
 government officials (national and provincial level) as well as representatives from financial
 institutions, private sector, universities and vocational training institutions;
- 3. Technology demonstration and scaling up: the project will demonstrate the technical and financial feasibility of RE technologies in agricultural activities located in rural areas, specifically: solar PV water pumping and biogas/biomass usage in agro-food processing industries through the installation of demonstration projects. The objectives of these projects, besides delivering GHG emission reductions, include generating case studies and best practices on the use of RE technologies in agro-food processing industries that have high replication potential across Mozambique. In this regard, UNIDO/GEF is offering a grant to support these demonstration projects in rural Mozambique to mitigate the high up-front costs required for such investment projects; and
- 4. Monitoring and Evaluation: The objectives of this component are to (a) establish and conduct adequate and systematic M&E and reporting of all project indicators following UNIDO and GEF procedures to ensure successful project implementation; (b) establish a dedicated website for the project; and (c) ensure that the dissemination programme is implemented and project milestones/reports etc., are regularly posted on the website.

DUTIES AND RESPONSIBILITIES

The national evaluation consultant will evaluate the projects according to the terms of reference (TOR) under the leadership of the team leader (international evaluation consultant). S/he will perform the following tasks:

MAIN DUTIES	Concrete/measurable outputs to be achieved	Expected duration	Location
Desk review Review and analyze project documentation and relevant country background information; in cooperation with the team leader, determine key data to collect in the field and prepare key instruments in English (questionnaires, logic models); If need be, recommend adjustments to the evaluation framework and Theory of Change in order to ensure their understanding in the local context	Evaluation questions, questionnaires/interview guide, logic models adjusted to ensure understanding in the national context A stakeholder mapping, in coordination with the project team	3 days	Home- based
Carry out preliminary analysis of pertaining technical issues determined with the Team Leader In close coordination with the project staff team verify the extent of achievement of project outputs prior to field visits Develop a brief analysis of key contextual conditions relevant to the project	Report addressing technical issues and question previously identified with the Team leader Tables that present extent of achievement of project outputs	5 days	Home- based

MAIN DUTIES	Concrete/measurable outputs to be achieved	Expected duration	Location
	Brief analysis of conditions relevant to the project		
Coordinate the evaluation mission agenda, ensuring and setting up the required meetings with project partners and government counterparts, and organize and lead site visits, in close cooperation with project staff in the field.	Detailed evaluation schedule List of stakeholders to interview during the field missions	2 days	Home- based
Coordinate and conduct the field mission with the team leader in cooperation with the Project Management Unit, where required; Consult with the Team Leader on the structure and content of the evaluation report and the distribution of writing tasks. Conduct the translation for the Team Leader, when needed.	 Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission Agreement with the Team Leader on the structure and content of the evaluation report and the distribution of writing tasks. 	8 days	Home- based
Follow up with stakeholders regarding additional information promised during interviews Prepare inputs to help fill in information and analysis gaps (mostly related to technical issues) and to prepare of tables to be included in the evaluation report as agreed with the Team Leader Revise the draft project evaluation report based on comments from UNIDO Independent Evaluation Unit and stakeholders and proof read the final version	Part of draft evaluation report prepared.	4 days	Home- based
TOTAL	1	22 days	

REQUIRED COMPETENCIES

Core values:

- 1. Integrity
- 2. Professionalism
- 3. Respect for diversity

Core competencies:

- 1. Results orientation and accountability
- 2. Planning and organizing
- 3. Communication and trust

- 4. Team orientation
- 5. Client orientation
- 6. Organizational development and innovation

Managerial competencies (as applicable):

- 1. Strategy and direction
- 2. Managing people and performance
- 3. Judgement and decision making
- 4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced university degree in environmental science, engineering or other relevant discipline like developmental studies with a specialization in industrial energy efficiency and/or climate change.

Technical and functional experience:

- A Minimum of five years' experience in conducting and managing reviews or evaluations (of development projects), preferably in the field of renewable energy. Exposure to the needs, conditions and problems in developing countries.
- Good working knowledge in environmental management
- Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks
- Working experience in developing countries

Languages: Fluency in written and spoken English and Portuguese is required.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Unit.

Annex 4- Outline of an in-depth project evaluation report

Executive summary (maximum 5 pages)

Evaluation purpose and methodology

Key findings

Conclusions and recommendations

Project ratings

Tabular overview of key findings – conclusions – recommendations

1. Introduction

- 1.1. Evaluation objectives and scope
- 1.2. Overview of the Project Context
- 1.3. Overview of the Project
- 1.4. Theory of Change
- 1.5. Evaluation Methodology
- 1.6. Limitations of the Evaluation
- 1.7.

2. Project's contribution to Development Results - Effectiveness and Impact

- 2.1. Project's achieved results and overall effectiveness
- 2.2. Progress towards impact
 - 2.2.1.Behavioral change
 - 2.2.1.1. Economically competitive Advancing economic competitiveness
 - 2.2.1.2. Environmentally sound Safeguarding environment
 - 2.2.1.3. Socially inclusive Creating shared prosperity
 - 2.2.2.Broader adoption
 - 2.2.2.1. Mainstreaming
 - 2.2.2.2. Replication
 - 2.2.2.3. Scaling-up
 - 2.2.2.4.

3. Project's quality and performance

- 3.1. Design
- 3.2. Relevance
- 3.3. Efficiency
- 3.4. Sustainability
- 3.5. Gender mainstreaming

4. Performance of Partners

- 4.1. UNIDO
- 4.2. National counterparts
- 4.3. Donor

5. Factors facilitating or limiting the achievement of results

- 5.1. Monitoring & evaluation
- 5.2. Results-Based Management
- 5.3. Other factors
- 5.4. Overarching assessment and rating table

6. Conclusions, recommendations and lessons learned

- 6.1. Conclusions
- 6.2. Recommendations
- 6.3. Lessons learned
- 6.4. Good practices

Annexes (to be put online separately later)

- Evaluation Terms of Reference
- Evaluation framework
- List of documentation reviewed
- · List of stakeholders consulted
- Project logframe/Theory of Change
- Primary data collection instruments: evaluation survey/questionnaire
- Statistical data from evaluation survey/questionnaire analysis

Project Title: UNIDO ID: Evaluation team: Date: Quality review done by: **Quality criteria** UNIDO EIO/IEU Rating assessment notes The inception report is well structured, logical, clear and complete **2.** Was the evaluation report well-structured and timely? (Clear language, correct grammar, clear and logical structure) **3.** The report presents a substantive description of the 'object' of the evaluation. The evaluation's purpose, objective and scope are clearly defined. The report presents a transparent description of the evaluation methodology and clearly explains how the evaluation was designed. Findings respond directly to the evaluation criteria and evaluation questions. They are clearly formulated and based on evidence derived from data collection and analysis. Conclusions presented are based on findings, are substantiated by evidence and present strengths and weaknesses. Recommendations are relevant to the evaluation object and purpose and supported by evidence and conclusions.

impacts and c) environmental issues Rating system for quality of evaluation reports

9. Report includes a section on lessons learned.
10 The report adequately addresses a) gender mainstreaming, b) human rights & social

Annex 5: Checklist on evaluation report quality

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, and unable to assess = 0.

Rating system for quality of evaluation reports

A rating scale of 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

Annex 6: Guidance on integrating gender in evaluations of UNIDO projects and Projects

A. Introduction

Gender equality is internationally recognized as a goal of development and is fundamental to sustainable growth and poverty reduction. The UNIDO Policy on gender equality and the empowerment of women and its addendum, issued respectively in April 2009 and May 2010 (UNIDO/DGB(M).110 and UNIDO/DGB(M).110/Add.1), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions.

According to the UNIDO Policy on gender equality and the empowerment of women:

Gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not suggest that women and men become 'the same' but that women's and men's rights, responsibilities and opportunities do not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. It is therefore not a 'women's issues'. On the contrary, it concerns and should fully engage both men and women and is a precondition for, and an indicator of sustainable people-centered development.

Empowerment of women signifies women gaining power and control over their own lives. It involves awareness-raising, building of self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discriminations and inequality.

Gender parity signifies equal numbers of men and women at all levels of an institution or organization, particularly at senior and decision-making levels.

The UNIDO projects/projects can be divided into two categories: 1) those where promotion of gender equality is one of the key aspects of the project/project; and 2) those where there is limited or no attempted integration of gender. Evaluation managers/evaluators should select relevant questions depending on the type of interventions.

B. Gender responsive evaluation questions

The questions below will help evaluation managers/evaluators to mainstream gender issues in their evaluations.

B.1. Design

- Is the project/project in line with the UNIDO and national policies on gender equality and the empowerment of women?
- Were gender issues identified at the design stage?
- Did the project/project design adequately consider the gender dimensions in its interventions? If so, how?
- Were adequate resources (e.g., funds, staff time, methodology, experts) allocated to address gender concerns?
- To what extent were the needs and priorities of women, girls, boys and men reflected in the design?
- Was a gender analysis included in a baseline study or needs assessment (if any)?

- If the project/project is people-centered, were target beneficiaries clearly identified and disaggregated by sex, age, race, ethnicity and socio-economic group?
- If the project/project promotes gender equality and/or women's empowerment, was gender equality reflected in its objective/s? To what extent are output/outcome indicators gender disaggregated?

B.2. Implementation management

- Did project monitoring and self-evaluation collect and analyse gender disaggregated data?
- Were decisions and recommendations based on the analyses? If so, how?
- Were gender concerns reflected in the criteria to select beneficiaries? If so, how?
- How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- If the project/project promotes gender equality and/or women's empowerment, did the project/project monitor, assess and report on its gender related objective/s?

B.3. Results

- Have women and men benefited equally from the project's interventions? Do the results affect
 women and men differently? If so, why and how? How are the results likely to affect gender relations
 (e.g., division of labour, decision making authority)?
- In the case of a project/project with gender related objective/s, to what extent has the project/project achieved the objective/s? To what extent has the project/project reduced gender disparities and enhanced women's empowerment?