



Terminal Evaluation Report

‘Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for all Progress’

Report Submitted to
UNDP, Lesotho

Terminal Evaluation Timeframe	11 May 2022 to 20 September 2022
Project Implementation Period Evaluated	October 2016 to September 2022
Date of final TE report	20 September 2022

GEF Project ID:	5742
UNDP PIMS Project ID:	5367
Country:	Lesotho
Region:	Africa
GEF Focal Area:	Climate Change
FA Objectives, (OP/SP):	CCM-3, Promote investment in renewable energy technologies
GEF Executing Agency:	United Nations Development Program (UNDP)
Implementing Partner	Ministry of Energy and Meteorology (MEM)
Other Partners involved:	Lesotho Highlands Development Authority (LHDA), Lesotho Electricity Company (LEC), Rural Electrification Unit (REU), Lesotho Electricity and Water Authority (LEWA), Bureau of Statistics (BoS), Department of Standards and Quality Assurance (DSQA)

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Disclaimer

The analysis and recommendations of this report do not necessarily reflect the views of the United Nations Development Programme, its Executive Board or the United Nations Member States. This document reflects the views of its authors.

Acknowledgements

The authors wish to thank UNDP Lesotho CO and the SE4All Project Team for the guidance, assistance and information provided during the Terminal Evaluation.

LIST OF ACRONYMS

ACE	African Clean Energy
AfDB	African Development Bank
ATS	Appropriate Technologies Services
BBCDC	Bethel Business and Community Development Centre
BoS	Bureau of Statistics
CAA	Country Action Agenda
CIF	Climate Investment Funds
CPD	Country Programme Document
CTA	Chief Technical Advisor
DoE	Department of Energy (of MEM)
DSQA	Department of Standards and Quality Assurance
EA	Executing Agency
EAF	Energy Access Fund
EoP	End of Project
ERC	Energy Research Centre (of NUL)
ESC	Energy ‘Shopping’ Canters
EU	European Union
EUDL	European Union Delegation to Lesotho
FREA	Facility of Rural Energy Access
FSS	Financial Support Scheme
GEF	Global Environment Facility
IAEA	Implementing Agency
IAEA	International Atomic Energy Agency IP
IP	Investment Prospectus
IPP	Independent Power Producer
kWh	kilowatt-hour
LAC	Local Appraisal Committee LCOE
LCOE	Levelized Cost of Energy
LEC	Lesotho Electricity Company
LEMP	Lesotho Electrification Masterplan
LEWA	Lesotho Electricity and Water Authority
LHDA	Lesotho Highlands Development Authority
LPG	Liquified Petroleum Gas
LREBRE	Lesotho Renewable Energy-Based Rural Electrification Project
LSES	Lesotho Solar Energy Society
M	Maloti
M&E	Monitoring and evaluation
MDP	Ministry of Development Planning
MEM	Ministry of Energy and Meteorology
MoF	Ministry of Finance
MW	Megawatt
MTEC	Ministry of Tourism, Environment, and Culture
MTR	Mid-Term Review
NDC	Nationally Determined Contributions
NUL	National University of Lesotho
NSDP	National Strategic Development Plan
PA	Project Assistant
PBI	Performance-Based Incentive
PIMS	UNDP-GEF Project Information Management System
PM	Project Manager
PIR	Project Implementation Review

PPA	Power Purchase Agreement
PSC	Project Steering Committee
PSIC	Public Sector Investment Committee
PV	Photovoltaic
QoSSS	Quality of Service and Supply Standards
RE	Renewable Energy
RET	Renewable Energy Technology
REUG	RE User Groups
REU	Rural Electrification Unit
SAPP	Southern African Power Pool
SECS	Sector Energy Consumption Survey
SE4All	Sustainable Energy for All
SHS	Solar Home System
SREP	Scaling-up Renewable Energy Programme
SUG	Stove User Groups
TE	Terminal Evaluation
TED	Technology for Economic Development
ToR	Terms of Reference
UAF	Universal Access Fund
UNCDF	United Nations Capital Development Fund
UNDAF	UN Development Assistance Framework
USD	United States dollar
UNDP	United Nations Development Programme
WB	World Bank

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EXECUTIVE SUMMARY

Project summary table

Table 1: Project Summary

Project Title:		Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for all Progress		
			<i>at endorsement (million USD)</i>	<i>Realized at completion (million USD)</i>
GEF Project ID:	5742	GEF financing:	3.500	2.153
UNDP PIMS Project ID:	5367	UNDP contribution:	0.400	0.091
Country:	Lesotho	Government:	8.468	10.179
Region:	Africa	European Union	7.900	4.743
		Other partners (private)	2.500	0.213
Focal Area:	Climate Change	Total co-financing	19.268	15.226
FA Objectives, (OP/SP):	CCM-3, Promote investment in renewable energy technologies	TOTAL PROJECT COST	22.768	17.379
Executing Agency:	Ministry of Energy and Meteorology (MEM)	GEF endorsement:	09.05.2016	
		ProDoc Signature (date project began)	13.10.2016	
Other Partners involved:	Lesotho Highlands Development Authority (LHDA), Lesotho Electricity Company (LEC), Rural Electrification Unit (REU), Lesotho Electricity and Water Authority (LEWA), Bureau of Statistics (BoS), Department of Standards and Quality Assurance (DSQA)	Closing date	11.10.2021 (Planned) 11.10.22 (Actual)	

Introduction and brief description of the project

Lesotho is a small landlocked country, which is surrounded by South Africa. The landscape of the country is mountainous and rugged with elevations from 1,388 m to 3,482 m. the country is challenging for development – because of its topography. The geo-morphological and topographic conditions have largely confined favourable socio-economic conditions to the lowlands, the foothills, and the Senqu River Valley, leaving the rugged mountain region mainly for grazing¹. Lesotho does not possess any indigenous sources of oil, coal, or natural gas and has no oil refinery. Barring the generation of some electricity using hydropower, Lesotho is totally dependent on imported fossil fuels for its energy requirements. Apart from importing fossil fuels, Lesotho also imports some of its electricity.

Although, Lesotho has good renewable energy resources (hydro, solar and wind), these resources are yet to be fully used for meeting the energy needs to the nation. The renewable energy sources have the potential to play an increased role in the country's energy mix. A very large percentage of population in the country still don't have access to electricity. The problem of non-electrification is comparably more predominant in the rural areas. Furthermore, some areas in the mountainous regions of the country have no electricity, as it is not possible to extend the distribution grid to them. The Government is

¹ As per project document

cognizant of the fact that it is an insurmountable task to serve the un-electrified 91.35% of the country's rural population through grid extension, because of the very high costs due to mountainous terrain. There is awareness among decision makers of the need to shift towards more decentralized, sustainable, and modern forms of energy for the much-dispersed rural areas in terms of cooking, lighting, and heating during the winter months. The 'Sustainable Energy for All Initiative', of the Government proposes to utilize the Renewable Energy resources (solar, wind and hydro), to meet the energy needs of the rural communities.

With this background, the project, 'Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress' has been implemented in Lesotho. At the global environmental level, the objective of the project was to catalyse investments in renewable energy-based mini-grids and Energy Centres to reduce GHG emissions. From the development perspective the objective of the project was to contribute to the achievement of Lesotho's Vision 2020 and SE4All goals. The project objective was to be achieved by introducing a conducive regulatory framework and by establishing a financial support scheme that together would facilitate private sector participation in village energization through renewable energy mini-grids and establishment of Energy centres in the country.

The project has been implemented through the 'National Implementation Modality (NIP)', by the Department of Energy (DoE) under the supervision of the Ministry of Energy and Meteorology (MEM) as the national implementing partner. The project has been implemented with COSS (Country Office Support Services) as per UNDP's procedures. The start date of the project was 13 October 2016 (date of signing of the project document). The expected operational closure of the project is 11 October 2022 (the original planned closure was 11 October 2021; the project was given an extension of one year).

As the project has come to its end, 'Terminal Evaluation (TE)' of the project has been carried out in order to ascertain the outcomes and impact of the programme, measured against its original purpose, objectives, whilst in the process capturing the evaluative evidence of the relevance, effectiveness, efficiency and sustainability of the results of the project, which will set the stage for future similar initiatives. This is as per the standard practice for all UNDP-GEF projects. The TE has been carried out by a team of independent evaluators comprising of an international consultant (Dinesh Aggarwal, India) and a National Consultant (Dr. Taelo Letsela). The findings of the TE are presented in this report, summary of which is given in the paragraphs below.

Project Objectives, Logical Frame Work and Achievements

As mentioned before, the objective of the project was to catalyse investments in renewable energy-based mini-grids and Energy centres to reduce GHG emissions and contribute to the achievement of Lesotho's Vision 2020 and SE4All goals. The objective was proposed to be achieved through the participation of the private sector working hand in hand with village community organizations. Under the project, it was proposed to put in place an enabling environment for the development of the renewable energy systems and develop a suitable business model and financial instruments for their viability and replication. It was expected that such an act would showcase a new business model that combines confidence with sustainability and replication. It was expected that the Outcomes of the project would apart from benefiting rural households and small commercial enterprises, also connect the private sector, financial institutions, technical training, and local organizations to promote the establishment of distribution channels to develop the renewable energy market for the provision of electricity services in Lesotho.

One of the other expectations was that the project will pioneer the functioning of an effective market for the widespread use and commercialization of renewable energy technologies for private sector-driven isolated mini-grid rural electrification in Lesotho.

Table 2, below provides the Project Objectives along with the summary of the planned outcomes and outputs. It also shows the corresponding set of indicators for monitoring and verification of the achievements against the Objectives, the Outcomes, and the Outputs. Also given in the Table is the brief of the status of the planned outputs and outcomes, at the time of the TE.

Table 2: Project Results Framework² and achievements at TE

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
Project Objective: To catalyse investments in renewable based mini-grids and Energy Centres to reduce GHG emissions and contribute to the achievement of Lesotho's Vision 2020 and SE4All goals.	Emission reductions (in tCO ₂ over 20 Yr. timeline).	<ul style="list-style-type: none"> Reduction of 213680 tonnes of CO₂ (project and immediate post project over the 20-year lifetime of the RET systems⁴ Estimated cumulative indirect GHG emission reduction of 641040 tonnes of CO₂ by 2025 applying a replication factor of 3 	<ul style="list-style-type: none"> Due to delay in establishment of the mini-grids and very low sales of RE solutions from the energy centres, the achievement of GHG emission reductions can at best be 3565 tons of CO₂e 	MU
	Energy produced (MWh) by RETs.	RET based electricity generation of 211 MWh/rear	<ul style="list-style-type: none"> There is no generation of electricity using RETs. Due to delay in establishment of mini-grids. Depending upon the performance of the mini-grids there will be generation of electricity using RETs in the future when the mini grids are completed. 	Unable to Assess (U/A)
	Number of jobs created	Total of 1125 jobs created ⁵	<ul style="list-style-type: none"> As no mini-grids were completed and construction was only beginning there were no discernible jobs that are created as yet. As per the project team, the concessioner for the mini-grid has 59 full time staff and 293 casual workers. Jobs have been created during construction. Once the mini-grids are established and operationalised there will be creation of permanent jobs. It will depend on the performance of the mini-grids, which cannot be predicted at this state. 	Unable to Assess (U/A)
	Number of beneficiary households in rural areas	3000 beneficiary households in rural areas ⁶ .	<ul style="list-style-type: none"> As no mini-grids could be operationalised during the implementation of the project, there are no discernible beneficiaries of mini-grids. 	Unable to Assess (U/A)

² Source: Project Document

³ GEF Rating Scale: 6 = Highly Satisfactory (HS) - exceeds expectations, no shortcomings; 5 = Satisfactory (S) - meets expectations and no or minor shortcomings; 4 = Moderately Satisfactory (MS) - more or less meets expectations and some shortcomings; 3 = Moderately Unsatisfactory (MU) – somewhat below expectations and significant shortcomings; 2 = Unsatisfactory (U) - substantially below expectations and major shortcomings; 1 = Highly Unsatisfactory (HU) -severe shortcomings; Unable to Assess (U/A): available information does not allow an assessment

⁴ In the project document computations include mini-grid and energy centres which would get implemented (using the funds and financing developed under the project) post implementation of the pilots under the projects. MTR mentions 3473 tonnes CO₂. MTR considered only the pilots to be established under the project

⁵ MTR mentions 375. Once again, the difference seems to be due to inclusion of jobs created post implementation of the GEF project in the project document.

⁶ The MTR mentions 1000. The difference could be due to inclusion of additional beneficiaries due to creation of mini-grid and energy centres after implementation of the GEF project

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
			<ul style="list-style-type: none"> The beneficiaries of the energy centres are very few due to poor sales from the energy centres. Post implementation of the mini-grids the number of beneficiaries would depend upon the number of households opting for electricity supply (depending upon the tariff and affordability) and the performance of the mini-grid. These parameters cannot be assessed at TE as the connections have not yet been done. 	
Component 1: Development of cornerstone SE4All Policies and Strategies to facilitate investment in renewable energy-based mini-grids Outcome 1: SE4All cornerstone policies and strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids. Indicator: Existence of policies and strategies Target: To be completed and approved by Government within 12 months of project initiation.				
Output 1.1: Developed and approved SE4All Country Action Agenda (CAA), following extensive stakeholder consultations.	Existence of Country Action Agenda.	To be completed and approved by Government within 12 months of project initiation.	<ul style="list-style-type: none"> Mini Grid Regulations approved Draft CAA document approval not yet done 	MS
Output 1.2: Approved/adopted SE4All Investment Prospectus (IP)	Existence of Investment Prospectus.	To be operationalized within 12 months of project initiation.	<ul style="list-style-type: none"> Draft IP document Approval of IP is pending 	MS
Output 1.3: Strategies and investment plans related to mini-grid applications and village energization schemes	Existence of strategies and investment plans. Investment of \$ 10 million in RETs in rural areas over 5 years after project completion.	To be completed within 18 months of project start.	<ul style="list-style-type: none"> Approved Mini-grid regulations provides for methods to determine the electricity tariff to be charged. The investment realized in the RET is the sales of some Solar Lights at the Energy Centres established under the SE4All project. Although, the concession agreements have been signed for the mini-grids, actual investment done till the time of TE was marginal. The concessioner for mini-grids has been able to get the approval from the FIs for funding, however actual investment is not much (as is evident from the progress made towards establishment of the mini-grids) 	MU
Component 2: Baseline energy data collection and monitoring for SE4All Outcome 2: Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision- making on the basis of quality energy data Indicator: Capacity of stakeholders developed. Target: To be completed within 12 months of project initiation				
Output 2.1: National survey conducted on energy supply, consumption and demand, disaggregated by sector, district and application	Completion of national energy survey.	To be completed within 9 months of project initiation and results validated by stakeholders by the end of Year 1.	<ul style="list-style-type: none"> Based on National Energy Survey, a Report on Household level energy survey was prepared and published Finalization of the sectoral survey reports is pending 	MS
Output 2.2: Energy database and information system established for data collected under Output 2.1	Existence of energy database and information system.	To be completed within 9 months of project initiation.	<ul style="list-style-type: none"> There is no activity by the project for this Output At the time of TE, no data on the energy collected under Output 2.1 could be assessed at the BOS site. The website has data regarding energy consumption pattern at an 	U

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
			aggregate level. The report 'Energy Statistics 2021 available at the website of BoS provides secondary data on production, consumption and imports/exports of energy commodities.	
Output 2.3: Energy modelling software in place to analyse the data, model scenarios and produce information that will promote RE policies	Energy modelling software being utilised.	To be completed within months of project initiation and approved by the Government by the end of year 1.	<ul style="list-style-type: none"> No energy modelling software has been developed/procured under the project There were road shows and exhibitions that were conducted by the Project to promote RET in the beneficiary districts. A promotional video was also produced. 	U
Output 2.4: All energy-related data and plans in the country harmonized with the proposed National Energy Policy and New Climate Change Strategy	Harmonised data available.	To be completed within 18 months of project start.	<ul style="list-style-type: none"> As per PIR for the year 2022 this Output has been dropped after deliberations between the project team and UNDP. 	Unable to Assess (U/A)
Component 3: Village-based energisation schemes Outcome 3: Successful establishment of a village-based energy service delivery model for replication nationally. Indicator: Availability of business model Target: To be completed within months of project start				
Output 3.1: Completed pre-feasibility studies for mini-grids in 20 village communities spanning 5 of Lesotho's 10 districts.	Pre-feasibility studies completed.	Completed within 12 months of project start.	<ul style="list-style-type: none"> Pre-feasibility studies were carried out in a timely manner 	S
Output 3.2: Operational mini-grids in 10 village communities and 10 Energy Centres in the 5 identified districts, viz; Mophale's Hoek, Mokhotlong, Thaba-Tseka, Quthing's Nek and Quthing	Mini-grids and Energy Centres operational.	All 60 village-based RET mini-grids and 20 Energy Centres (project and immediate post-project) constructed and operational.	<ul style="list-style-type: none"> Concession Agreements for 10 mini-grids has been signed with 1 Power (1 Power is the concessioner for all the 10 mini-grids). However, they are yet to be operationalised. At the time of TE, the construction of the mini-grids was only beginning with erection of poles for distribution. No activity at the generation sites in all mini grids. For most of the mini-grids markings of the poles has been done (including erection of some poles). As per the concessioner, procurement of hardware for mini-grids has been partly done. Operations of the mini-grids is not expected during the remaining implementation period of the project. Amendments has been made in the grant agreements between UNCDF and 1 Power, for the mini-grids, wherein the balance grant for the mini-grids will be paid to 1 Power, if it achieves even a single electricity consumer connection for 5 mini-grids (out of total 10 mini-grids) In case of Energy centres, financing agreements has been signed for 10 EC between UNCDF and the promoters of EC along with the payment of upfront financial support. The energy centres have been established; however, the operational 	MU

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
			performance of the ECs is poor to almost non-existent.	
Output 3.3⁷: identify 50 additional sites for the construction of mini-grids and 10 additional sites for Energy Centres, and secure the interest of the private sector to develop these sites.			<ul style="list-style-type: none"> This Output seems to have been dropped. However, there is no record or evidence in this regard nor that such as action was approved by the PSC. 	Unable to Assess (U/A)
Output 3.4: Capacity of national and district-level energy officials developed on best practices and opportunities for decentralized village energisation models in off-grid areas	Existence of capacity development material.	Capacity development completed within 24 months of project start.	<ul style="list-style-type: none"> No formal training could be organised for the national and district level energy officials. Training that was done was mainly to the beneficiary communities. 	U
Output 3.5: Financial Support Scheme established to support private sector investment in village-based energisation through mini-grid / Energy Centres	Evidence of private sector investment in in village-based energisation through mini-grids/Energy Centres.	\$ 5 million invested by project end.	<ul style="list-style-type: none"> The project has established the FSS being administered through UNCDF to provide grants for mini-grids. The FSS also has provision to provide performance-based grants to the operators of the ECs. At the time of TE, the actual investment in the mini-grids is quite low, as the work to establish the mini-grids has just been initiated. However, the grants for establishment of the mini-grids are planned to be disbursed before the closure of the project (by amending the agreement between 1 Power and UNCDF. The amendment to the grant contract was completed in June 2022) The investments made by the developers of ECs is low and comprises a small inventory of a RE products (mainly solar PV lights), as most of the ECs are operating from existing shops in the villages. For such shops, RE products is one of the several items sold. USD 0.6 million has already been provided as grant for development of the mini-grids. Another USD 0.3 million is likely to be disbursed as grant for the mini-grids by the end of the project. Apart from the grants from the project, by the end of the project there will be some investment by the developer of the mini-grid. Apart from the mini-grids, there is some investment in the ECs. Based on the information/documents shared with the TE team, the payments made 	MS

⁷ Output 3.3 is not there in the results framework in the project document. However, it is covered in the Inception Report and the MTR report.

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
			<p>by 1 Power for procurement of capital goods, till end of May 2022 is USD 0.747 million (0.113 for backup generators+0.484 for Battery bank+0.043 for Power House+0.107 for PV panels). The investment made by 1 Power till May 2022 is approx., 20% of the CAPEX (being 20% advance paid to the suppliers). Thus, even after completion and operationalization of the mini-grids, the total investment in the mini-grids would be about USD 3.5 million (including USD 0.9 million grant provided by the project)</p> <p>Apart from this some investment has also happened in the VECs and on other heads by 1 Power. Thus, on a rough basis the total investment mobilisation by the end of the project is expected to be of the order of USD 1.5 million (including about USD 0.6 million by the private sector).</p>	
Component 4: Outreach programme and dissemination of results Outcome 4: Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region. Indicator: Existence of outreach programme Target: Increased awareness among stakeholders in place to promote and develop RET-based mini-grids for village energy services				
Output 4.1: National Plan to implement outreach /promotional activities targeting both domestic and international investors.	Availability of national plan.	Completed within 24 months of project initiation.	<ul style="list-style-type: none"> The idea of this Output was promotion of the idea of mini-grids and VECs amongst the potential international and national investors to attract investments for the mini-grids. There is no evidence to suggest formulation of a national plan for outreach/promotional activities targeting the domestic and international investors. The outreach and training that was done focussed on the beneficiary communities not necessarily the investors as envisaged. 	U
Output 4.2: Capacity development of concerned ministries/institutions to monitor and document project experience	Existence of capacity development material.	10 staff from Government/other Institutions successfully trained by the end of project.	<ul style="list-style-type: none"> A consultancy along with the Bureau of Statistics organised a training program for the officials of DoE on SPSS (statistical software package for data analysis). 	MU
Output 4.3: Published material (including video) and informational meetings with stakeholders on project experiences/best practices and lessons learned	Existence of published material.	Completed within 3 months of project end.	<ul style="list-style-type: none"> A presentation was made by the Project Officer regarding the activities and progress under the project at Energy Sector Coordination Forum meeting in November 2021 Considering the delays and lacking in the performance of the project towards creation of mini-grids and the performance of the energy centres, there are not many results and good practices to disseminate, 	U

Project Objective/ Component/ Outcome/Output	Indicator	Target	Status at TE	Rating at TE ³
			during the implementation of the project. • The workplan for the year 2022, has provided for hiring a consultant to capture project activities	
Output 4.4⁸: Lessons learned and results dissemination workshops	Availability of workshops proceedings.	Completed within 3 months of project completion.	• Till the time of TE there is no visible action to achieve this Output. • Activities under this Output are to be carried out towards the end of the projects planned implementation. Workplan for the year 2022 has included this activity to accomplish this Output	S

Evaluation Ratings

As per the requirements of the TOR for Terminal Evaluations, Table 3 provides the ratings for relevance, effectiveness, efficiency, impacts and sustainability of the project.

The Table also provides the ratings for Monitoring and Evaluation (M&E), Implementing Agency (IA) & Executing Agency (EA) Execution, and Assessment of Outcomes. Ratings have been provided using the obligatory GEF rating scale.

Table 3: Terminal Evaluation Ratings

1. Monitoring and Evaluation	Rating ⁹	2. Implementing Agency (IA) & Executing Agency (EA) Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation	MS
M&E Plan Implementation	MS	Quality of Execution - Executing Agency	MS
Overall quality of M&E	MS	Overall quality of Implementation / Execution	MU
3. Assessment of Outcomes	Rating ¹⁰	4. Sustainability	Rating ¹¹
Relevance	R	Financial resources	L
Effectiveness	MS	Socio-political	L
Efficiency	U	Institutional framework and governance	L
Overall Project Outcome Rating	MU	Environmental	L
		Overall likelihood of sustainability	L

Summary of Conclusions

The objective of the project was creation of favourable legal, regulatory and market environment and building institutional, administrative, and technical capacities to promote rural electrification through isolated renewable energy-based mini-grids and to provide RE based energy solutions to the communities through Energy Centres. The global environmental objective of the project was reduction in the emission of GHGs, through generation of electricity using renewable sources of energy. The idea of the project was to lay the foundations for a successful, post-project, rural energization initiative. The

⁸ Output 4.6 is not there in the results framework in the project document. However, this is covered in the text of the project document

⁹ Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS): Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems

¹⁰ Ratings for Relevance; Relevant (R)

¹¹ Ratings for Sustainability: Likely (L): negligible risks to sustainability; Moderately Likely (ML): moderate risks; Moderately Unlikely (MU); significant risks; Unlikely (U): severe risks

objectives of the project were to be achieved through achievement of the following four targeted Outcomes of the project.

- Outcome 1: SE4All cornerstone policies and strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids.
- Outcome 2: Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision- making on the basis of quality energy data
- Outcome 3: Successful establishment of a village-based energy service delivery model for replication nationally.
- Outcome 4: Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region.

The implementation of the project started in a timely manner with the inception meeting of the project happening within three months of the project start date. However, actual implementation of the project (particularly component 3) suffered due to failure to follow sequential activities (e.g., the initiatives for implementation of the pilot mini-grids were to start right in the first year of the project implementation) as was envisaged in the project design. This was clearly due to no annual work planning for the first two years of project implementation and the challenges with the FSS. A lot of time was spent trying to setup a FSS which delayed the implementation of the ECs and the mini grids.

The way project was designed, the activities for achieving different targeted outcomes were required to be carried out sequentially, as different outcomes were to support each other. For example, Outcome 1 and Outcome 2 were to support achievement of Outcome 3. Dissemination of results of Outcome 1, Outcome 2 and Outcome 3 were to be carried out under Outcome 4 to achieve the larger objective of replication, thereby leading to the achievement of the objectives of the project. In the present case, non-achievement or partial achievement or delayed achievement of one of the Outcome/Output, has impacted the achievement of the other Outcomes/Outputs of the project.

One of the remarkable achievements of the project under Outcome 1, is the approval of the regulations for the mini-grids. The other two documents produced under Outcome 1 (namely the Investment Prospects and Country Action Agenda) could not obtain the approval from the government at cabinet level as envisaged. It is important to note that as per the project design, the idea of the investment prospects was to produce a document, which makes available a catalogue of investment opportunities in the area of RE based mini-grids and other RE/EE energy solutions to the prospective private sector investors. The project did produce the investment prospects compiling the proposals of investments by the private investors.

In the absence of appreciable results during the implementation timelines of the project, there were no best practices and results to disseminate under Component 4 of the project. Thus, no major dissemination activity under Component 4 aimed at replications took place.

Post implementation of the project, the results of the project will depend on the performance of the mini-grids, whose implementation at the time of TE was still at preliminary stage. The performance of the mini-grids and hence the results of the project (post implementation) will depend on the demand for electricity by the consumers (there may be issues regarding actual consumption of electricity by the consumers, given the tariff and affordability issues) and technical performance of the mini-grids. It is important to note that the proposed tariff to be charged is purely based on the actual consumption, and there are no charges for the extent of connected/contracted load.

Recommendations

Table 4: Recommendations

#	Recommendation	Rational and Description	Timing/Dates for Action
	Corrective actions for the design, implementation, monitoring and evaluation of the project		
1	Future efforts towards promotion of mini-grids may ensure promotion of other RE technologies (other than solar PV).	<p>All the mini-grid pilots under the project are based on solar PV. The project has not been able to mainstream any other RE technology (e.g., mini-hydro, biomass) for establishment of mini-grids.</p> <p>Given the situation of Lesotho, wherein there is a water stream almost everywhere in the mountain areas, specific efforts may be put to pre-identify the potential locations for mini/micro hydro based mini-grids and such potential hydro based mini-grids be promoted.</p> <p>Sustainability of mini-grids based on Hydro is higher (compared to solar PV) as it does not require periodic replacement of batteries although such hydro schemes may be susceptible to weather changes especially droughts.</p>	At the time of design of other similar projects in the country
2	It is recommended that the project document for all future GEF projects include all the Mandatory Annexes (including a multi-year workplan).	<p>One of the reasons for under performance of the project is delay in the establishment of the pilot projects for mini-grids. This has happened partly due to oversight regarding the need to prioritise the sequential activities leading to establishment of the mini-grids. This has happened partially due to non-preparation of the annual workplans for the initial two years of project implementation.</p> <p>The reason for missing out on preparation of the annual workplans could be the absence of multi-year workplan in the project document. The absence of a multi-year workplan is one of the reasons for missing timely action towards the implementation of many important activities (including the pilot projects for mini-grids and Energy Centres).</p> <p>The template of the Project Document for GEF 5, mentions 'multi-year workplan as one of the mandatory Annexes (normally Annex 3 in the Project Documents) to the Project Document. The project document for the present GEF project had missed on this.</p>	At the time of design of other GEF projects in the country
3	It is recommended that for the GEF projects in the focal area of climate change mitigation, the computation of global environmental benefits should be done keeping in mind the GEF methodology and in a conservative manner.	Computations of direct GHG emission reduction for all the GEF projects in the focal area of climate change should be done as per the GEF definition of 'Direct GHG Emission Reductions'. This will avoid non-achievement of the core-indicators at the end of the project.	At the time of design of other GEF projects in the focal areas of 'climate change mitigation' in the country
	Actions to follow up or reinforce initial benefits from project		
4	During the project implementation, Bureau of Statistics, Lesotho collected data during a survey to establish sectoral energy consumption pattern. The report on the energy consumption by the households has already been published. It is recommended that during the remaining project implementation period the reports	The project supported the collection of data for the sectoral study of energy consumption by different sectors. The data collection was carried out by the Bureau of Statistics, Lesotho. For some of the sectors, there are still some data gaps. The report on the energy consumption by the households has already been published. It is recommended that during the remaining project implementation period the reports for the sectors for which data is available be published.	Immediate, during rest of the project implementation time

#	Recommendation	Rational and Description	Timing/Dates for Action
	for the sectors for which data is available may be published.		
5	<p>The unspent funds are of the order of USD 225,000. It is recommended that this unspent grant funds for the Energy Centres may be used in either of the following two ways</p> <ul style="list-style-type: none"> • New locations for mini-grids (one or two) may be identified and concession granted with the disbursement of the grant funds (@USD 90,000 per mini-grid as is being done presently) • The balance grant funds for the Energy Centres may be utilized for helping the concessioners of the Energy Centres to procure the inventory of the RE/EE products. Fifty percent of the procurement price may be given as a grant at the time of the procurement of the RE/EE products 	Given the present situation, it is unlikely that the grant funding meant for the Energy Centres would get utilized by the end of the project, unless adaptive measures are taken as suggested.	Immediate, during rest of the project implementation time
6	With the regulations for mini-grids already in place, the future development projects may focus on the procedures to mainstream private sector investments for creation of mini-grids. As a further step towards this, the government and the regulators may explore the possibilities of going for Tariff based bidding process to allocate concessions to the private sector.	Interactions with the communities at the time of TE, indicated that there is a high level of desire in the communities to get electricity. This can help to exponentially replicate creation of mini-grids in rest of the unelectrified villages.	At the time of design of other similar projects in the country
7	It is recommended that the project be provided a no cost extension of six months in its implementation timelines.	Implementation of the project suffered due to Covid 19. The impact has been particularly severe for establishment of the mini-grids. It is expected that an extension would lead to establishment of the mini-grids within the implementation timelines of the project, thereby enhancing the achievements and results of the project as the mini-grids would get established and operational.	Immediate
	Proposals for future directions underlining main objectives		
8	It is recommended that future design of the project of this nature consider a mobile model of the VEC, wherein a bigger EC is established at selected locations and the remote areas are served by mobile vans.	Given the remoteness of VEC locations, the market size is quite limited. On top of it the cost of serving the markets is quite high exacerbated by the bad roads in these remote areas.	At the time of design of other similar projects in the country
9	It is recommended that the regulations provide for different tariff determination methods for the electricity based on the time of the day concept. Charging different tariffs, based on the time of the day concept would be possible with the use of smart meters. The availability of electricity at a lesser price during the day would lead to the development of cottage-level enterprises and micro businesses. Such a provision would also ensure an increase in the load for the	The cost of delivery of electricity during day time and during the night time is different (particularly for the Solar PV). This is largely because the delivery of electricity during the daytime doesn't require batteries (or minimal batteries).	As soon as possible

#	Recommendation	Rational and Description	Timing/Dates for Action
	concessioner thereby improving the commercial viability of the operations		
	Best/worst practices in addressing issues relating to relevance, performance, and success		
10	It is recommended that future projects of this nature may provide the grant to the concessioners at the time of procurement of the energy appliances.	One of the lessons learned is that the new scheme (of 50% grant on the sales price of the appliance, instead of performance-based incentives to concessioners) for the grants for the Energy Centres has increased the working capital requirements (due to time lag from the time of sale of energy appliance and realization of the 50% of the balance sales realization as a grant). As it is not easy for the concessioners to increase the availability of funds (cash flow), the stocks at the Energy Centres don't get replenished. This in turn leads to a decrease in sales.	At the time of design of other GEF projects in the country
11	It is recommended that an amendment be carried out in the regulations to do away with the restriction to provide electricity connection to the consumers outside the geographical area of the concession. Natural expansion of the mini-grid to nearby areas over the period may be allowed, if the expansion is not impacting the delivery of services within the assigned concession area	The provisions in the regulations does not allow a concessioner to offer connection to a household on the border (or outside the concession area).	As soon as possible

1. INTRODUCTION

1.1 Context, purpose of the terminal evaluation and objectives

The project, ‘Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress’ has been implemented in Lesotho. The objective of the project was to catalyse investments in renewable energy-based mini-grids and Energy Centres to reduce GHG emissions and contribute to the achievement of Lesotho’s Vision 2020 and SE4All goals. The project objective was to be achieved by introducing a conducive regulatory framework and by establishing a financial support scheme that together would facilitate private sector participation in village energisation through renewable energy mini-grids and establishment of Energy Centres in the country. The objectives were proposed to be achieved through the participation of the private sector working hand in hand with village community organisations. Under the project, it was proposed to put in place an enabling environment for the development of the renewable energy systems and develop a suitable business model and financial instruments for their viability and replication. It was expected that such an act would showcase a new business model that combines confidence with sustainability and replication. It was expected that the Outcomes of the project would apart from benefiting rural households and small commercial enterprises, also connect the private sector, financial institutions, technical training, and local organisations to promote the establishment of distribution channels to develop the renewable energy market for the provision of electricity services in the country.

One of the other expectations was that the project will pioneer the functioning of an effective market for the widespread use and commercialisation of renewable energy technologies for private sector-driven isolated mini-grids for rural electrification in Lesotho.

The project implementation was started in October 2016 (signature on Project Document) with the project implementation period of 5 years the planned project closure was in October 2021. As the project has been granted a one year no-cost extension the actual operational project closure date is October 2022.

The project has been implemented with funding from the Global Environment Facility (GEF) and the Executing Agency for the project was United Nations Development Programme (UNDP). With the project approaching its end, a terminal evaluation of the project has been carried out. This is as per the standard practice for all UNDP-GEF projects.

The UNDP CO invited a team (comprising of an International Consultant and a National Consultant) of consultants to carry out the Terminal Evaluation of the project as per the scope and terms of reference given in **Annex A**. The broader defined objectives of the terminal evaluation were as follows:

- To compare planned outputs of the project to actual outputs.
- Identify (if applicable) the causes and issues which contributed to non-achievement of the targets of the project.
- Draw lessons that can both improve the sustainability of benefits from the project, and aid in the overall enhancement of UNDP programming.

A team of consultants, comprising of an international consultant, Dinesh Aggarwal (India), and a national consultant Dr. Taelo Letsela (Lesotho), was selected and contracted by the UNDP, Lesotho country office (CO) to carry out the terminal evaluation. Findings of the TE are presented in this report.

1.2 Scope and methodology of the terminal evaluation

The evaluation has been carried out in accordance with the UNDP-GEF Guidance for Conducting Terminal Evaluations of UNDP-supported Projects, as provided in the ‘Handbook on Planning, Monitoring and Evaluating for Development Results’. Prior to the start of the Terminal Evaluation, an inception report was prepared and shared with the UNDP CO in Lesotho and the project team as well as the PSC and other project stakeholders. The inception report provided the outlines of the approach and methodology to be followed while carrying out the evaluation. It also provided the proposed timelines for the evaluation. The inception report included a table providing the criteria for the evaluation and the list of main evaluation questions. The table of terminal evaluation criteria and the questions is given in **Annex B**. Accordingly, the methodology for carrying out the Terminal Evaluation was comprised of following activities:

- **Review of Documents:** Review of ‘Project Design Document’ and all relevant sources of information including documents prepared during the preparation phase. The review of documents included a review of financial data, the mid-term evaluation report, a sample of back-to-office reports, samples of project communication material, Project Implementation Reviews, etc. **Annex C** provides the list of documents reviewed.
- **Mission to Lesotho, interviews with stakeholders and site visits.** A mission to Lesotho was organised from the 04 July 2022 to 19 July 2022. The mission started with a briefing by the UNDP CO and the project team. After the mission a presentation on the initial findings was carried out online on 22 July 2022 to the UNDP CO, PMU, and other stakeholders to get the feedback on the initial findings and observations during the mission. During the mission, interviews with different stakeholders and project participants were carried out. The mission included discussions with the officials of the organisations where the mini-grids and energy centres supported by the GEF project have been implemented. During the field mission discussions were also held with the targeted beneficiaries/households at the locations where the pilot activities under the project were carried out. **Annex D** provides the overall schedule of the missions and the stakeholders interviewed during the mission. The mission also served the purpose of collecting some of the missing documents to be reviewed.

The assessment of project performance has been carried out based upon the expectations set out in the Project Logical Framework/Results Framework which provides performance and impact indicators for project implementation along with their corresponding means of verification and the review of results that have been delivered by the project. The Logical Framework as provided in the ‘Project Document’ was perused. While referring to the Logical Framework given in the project document, the suggested changes at the time of ‘project inception’ and at the time of ‘mid-term review’ of the project have also been considered. While carrying out the evaluation, emphasis has been placed on evidence-based information that is credible, reliable and useful.

The review of documents provided the basic information regarding the activities carried out to attain the desired outputs and outcomes. However, the mission was needed to verify the information, get missing data and to learn the opinion of stakeholders and project participants to interpret the information. During the mission, the interviews with the key stakeholders’/project participants were based on an open discussion to allow respondents to express what they feel are the main issues. This was followed by more specific questions on the issues mentioned. During the interviews, the evaluation criteria and the questions (Please see **Annex B**) were used as the check list to raise relevant questions and issues.

The limitations of the Terminal Evaluation include the time available for carrying out the field mission. Some of the meetings were held online using online meeting platforms. In persons meetings with the stakeholders were carried out during the mission. The evaluation team is of the view that the meetings

and consultations carried out within the available time were sufficient to provide the required level of clarity and information for the TE.

The evaluation was conducted in accordance with the principles outlined in the United Nations Evaluation Group 'Ethical Guidelines for Evaluation' as given in **Annex E**.

1.3 Structure of the Terminal Evaluation Report

The structure of the report is as per the format suggested in the Terms of Reference for the terminal evaluation. However, the contents of the chapter on findings have been split into three separate chapters due to the size of the text.

The report starts with a chapter providing an introduction which is followed by the chapters of project description, findings. The last chapter of the report provides the conclusions and the recommendations. Additional information is provided in the Annexes to the report. An Executive Summary of the report is provided in the beginning of the report. With respect to the findings discussion, the report elaborates three general areas: project formulation, project implementation, and project results, in three different Chapters. The report is organised as follows;

Chapter 1: Introduction to the project

Chapter 2: Project description and development context. Most of the contents of this Chapter comes from the Project Document. This chapter provides information about the project, to a reader of the TE report at any point of time.

Chapter 3: Findings: Project design and formulation. This chapter provides an oversight of different 'design aspects' of the project. The aspects covered in this section of the report are termed as 'factors affecting performance'. The role of these aspects (if applicable) is deliberated Chapter 5 of the TE report. This forms the basis to determine if any of the design aspects have impacted the results of the project (which are covered in Chapter 5 of the report).

Chapter 4: Findings: Project implementation. This chapter of the report provides information about planned provision in the project design regarding different aspects, like project implementation arrangements, M&V, stakeholder participation, roles of implementing partners and GEF agency etc. Most of this information comes from the project document.

Chapter 5: Findings: Project results. This Chapter deliberates upon the achievement of results and objectives of the projects. If applicable, an assessment regarding the reasons in the shortfall in the performance is carried out in terms of the 'Factors Affecting Performance'.

Chapter 6: Conclusions, recommendations, and lessons. This Chapter provides the conclusions and a set of recommendations

Annex B shows where the main criteria and questions of the Terminal Evaluation are provided in different sections of the report.

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 Project start and duration

Table 5 provides the details regarding the timelines for project approval and implementation

Table 5: Project Approval and Implementation Timelines

Event	Date
PIF Approval Date	May 27, 2014
CEO Endorsement Date	May 29, 2016
Project Document Signature Date (project start date):	Oct 13, 2016
Date of Inception Workshop	Nov 24, 2016
First Disbursement Date	Dec 12, 2016
Expected Date of Mid-term Review	Dec 31, 2019
Actual Date of Mid-term Review	Dec 27, 2019
Date of Terminal Evaluation	June to Aug2022
Original Planned Closing Date	Oct 11, 2021
Revised Planned Closing Date	Oct 11, 2022

The implementation timelines for the project were extended to 11 October 2022 as per the UNDP GEF Executive Coordinator and Director's approval of the extension request in April 2021. As the project's implementation is extended to October 2022, the terminal evaluation of the project was rescheduled to third quarter of 2022.

2.2 Problems that the project sought to address¹²

Although, Lesotho is a relatively small country, two-thirds of the country is sparsely inhabited, comprised of rugged mountains and deep valleys with small, scattered villages on mountain sides (please see figure 1). All project sites are in the mountains.

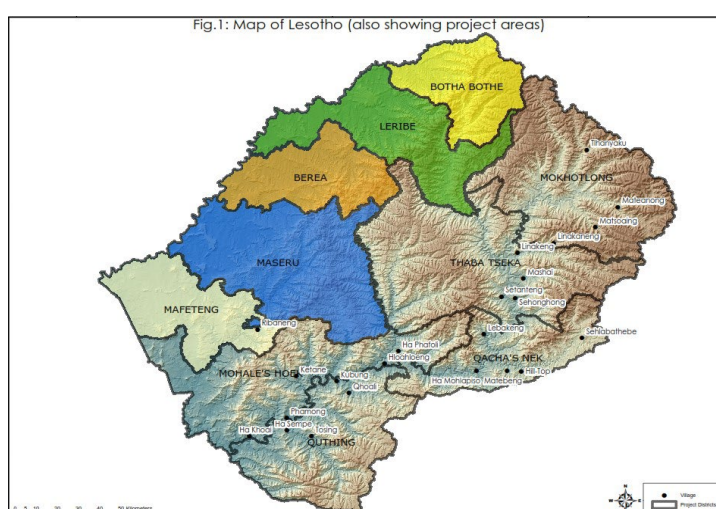


Figure 1: Map of Lesotho (also showing project areas) (Source: Project Document)

The population distribution of Lesotho is 24 % urban and 76 % rural. Population density is lower in the

¹² Based on Project Document

highlands than in the western lowlands. Lesotho has no sources of fossil fuels; the entire demand for the fossil fuels is met by way of imports. The households largely use biomass (60% of households in the country, especially rural households) for heating and cooking; candles/kerosene for lighting (95% of the households). The household electrification rate is 30%, with 36% of urban/peri-urban households and only 8.65% of rural households having access to electricity services. Electricity, however, only accounted for 7% of the consumed energy in Lesotho in 2014.

Lesotho has good renewable energy resources. However, these resources are yet to be leveraged to meet the energy needs of the country. Realising that it is difficult to serve the unelectrified 91.35% of the country's rural population through grid extension, the national government wishes to shift towards more decentralised, sustainable, and modern forms of energy using renewable sources of energy, for the much-dispersed rural areas in terms of cooking, lighting, and heating during the winter months. It is difficult to extend the electricity grid to mountainous rural areas partly because to the cost involved and partly because the villages are thinly populated. Further, the approach of supplying grid electricity to the remotely located rural areas will further increase the import of electricity (from South Africa and Mozambique) in the country. However, there are many barriers towards widespread use to decentralised RE based energy systems for the rural areas. Some of these barriers and the corresponding approach in the project are highlighted in Table 6. The GEF project is designed to overcome these barriers.

Table 6: Barriers towards Renewable Energy Based Decentralised Energy Systems in Lesotho

	Barrier	Project Strategy	Outcome of the project
1	Absence of an approved policy and strategy for energy, renewable energy, and energy efficiency promotion.	Development of Policies and strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids.	Outcome 1
2	Lack of data for proper analysis of the energy sector.	Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision- making based on quality energy data. <ul style="list-style-type: none"> • National Energy Survey (Output 2.1) • Establishment of energy data base (Output 2.2) • Energy modelling (Output 2.3) • Harmonisation of energy related data and plans with National Energy policy and Climate change Strategy (Output 2.4) 	Outcome 2
3	Fragmented institutional, legal, and regulatory framework.	<ul style="list-style-type: none"> • Developed and approval of Country Action Agenda (CAA), and regulations for mini-grids (Output 1.1) 	Outcome 1
4	Lack of private investment in modern energy supplies and technologies for cooking and other thermal applications.	<ul style="list-style-type: none"> • Development of investment prospectus (Output 1.2) • Formulation of strategies and investment plans related to mini-grid applications and village energization schemes (Output 1.3) 	Outcome 1
5	Barriers to private investment in new on-grid and off-grid power generation capacity (especially for Renewable Energy Systems), grid extension/maintenance, demand-side management (DSM) and energy efficiency.	<ul style="list-style-type: none"> • Pre-feasibility studies for mini-grids in 20 village communities (Output 3.1) • Identification of sites for the construction of mini-grids and Energy Centres, and secure the interest of the private sector to develop these sites (Output 3.3) • Establishment of Financial Support Scheme to support private sector investment in village-based energisation through mini-grind and Energy Centres (Output 3.5) 	Outcome 3

2.3 Immediate and development objectives of the project

The objective of the project is to catalyse investments in renewable energy-based mini-grids and Energy Centres to reduce GHG emissions and contribute towards achievement of Lesotho's Vision 2020 and SE4All goals. The objectives of the project were to be achieved by putting in place an enabling environment for the development of the renewable energy systems and develop a suitable business model and financial instruments for their viability and replication. The project proposed participation of the private sector working hand in hand with village community organisations. Thus, this programme will not only benefit rural households and small commercial enterprises, but will also connect the private sector, financial institutions, technical training, and local organisations to promote the establishment of distribution channels to develop the renewable energy market for the provision of electricity services.

2.4 Baseline and expected results¹³

In Lesotho 76.3% of the country's population live in the rural areas and only 8.65% of them have access to electricity services. To provide the un-electrified 91.35% of the rural population with electricity services through grid extension is an insurmountable task due to high costs associated with construction of electricity lines across a mountainous terrain. Although, renewable energy sources present an excellent alternative to grid extension there are barriers (please see section 2.3 and Table 6) towards doing so.

In the past efforts were made to provide solar home systems through the sale of equipment to interested homeowners in the rural areas¹⁴. However, this did not work out. Similarly, the SE4ALL project was expected to provide electricity to the initial set of rural households in the mountains which are not presently connected to the grid. Further, due to replication of the mini-grids the project was expected to provide electricity (based on RE mini-grids) to the other villages in the mountain areas where the extension of the main grid is not feasible in the foreseeable future. Availability of electricity is expected to lead to improvement in people's livelihoods by providing basic electricity services to the rural areas not connected to the grid. The project was also expected to lead to reduction in the dependence of the country on imported fossil fuels especially paraffin and candles and imported electricity.

2.5 Results Framework

The results framework of the project providing the objectives, the expected outputs and the outcomes along with corresponding indicators is presented as Table 7. During the inception of the project, there were minor adjustments in the indicators of the project. No changes in the indicators of the log-frame were carried out at the time of MTR.

Table 7: Results Framework of the project

Project Objective/ Component/ Outcome/Output ¹⁵	Indicator	Baseline	Target
Project Objective: To catalyse investments in renewable based mini-grids and Energy Centres to reduce GHG emissions and	Emission reductions (in tCO ₂ over 20 Yr. timeline).	GHG emissions in the country have increased from 0.76 million tCO ₂ in 1994 to 1.1. million	• Reduction of 213680 tonnes of CO ₂ (project and immediate post project over the 20-year lifetime of the RET systems ¹⁶

¹³ Based on the Project Document

¹⁴ This was under the t UNDP/GEF project, "Lesotho Renewable Energy-Based Rural Electrification Project

¹⁵ The Results Framework given in the Project Document has not mentioned the Output level details. The output level details has been incorporated based on the information provided elsewhere within the Project Document.

¹⁶ In the project document computations include mini-grid and energy centres which would get implemented (using the funds and financing developed under the project) post implementation of the pilots under the projects. MTR mentions 3473 tonnes CO₂. MTR considered only the pilots to be established under the project

Project Objective/ Component/ Outcome/Output ¹⁵	Indicator	Baseline	Target
contribute to the achievement of Lesotho's Vision 2020 and SE4All goals.		tCO ₂ in 2000 and expected to increase to 5.2 million tCO ₂ by 2030	<ul style="list-style-type: none"> Estimated cumulative indirect GHG emission reduction of 641040 tonnes of CO₂ by 2025 applying a replication factor of 3
	Energy produced (MWh) by RETs.	The present contribution of RETs in the provision of off-grid rural energy services in negligible	RET based electricity generation of 211 MWh/rear
	Number of jobs created	No investment taking place in the provision in rural energy services through mini-grids electricity generation	Total of 1125 jobs created ¹⁷
	Number of beneficiary households in rural areas		3000 beneficiary households in rural areas ¹⁸ .
Component 1: Development of cornerstone SE4All Policies and Strategies to facilitate investment in renewable energy-based mini-grids Outcome 1: SE4All cornerstone policies and strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids.	Existence of policies and strategies	Not available at the present time.	To be completed and approved by Government within 12 months of project initiation.
Output 1.1: Developed and approved SE4All Country Action Agenda (CAA), following extensive stakeholder consultations.	Existence of Country Action Agenda.	Not available at the present time.	To be completed and approved by Government within 12 months of project initiation.
Output 1.2: Approved/ adopted SE4All Investment Prospectus (IP)	Existence of Investment Prospectus.	None available at the present time.	To be operationalised within 12 months of project initiation.
Output 1.3: Strategies and investment plans related to mini-grid applications and village energisation schemes	Existence of strategies and investment plans. Investment of \$ 10 million in RETs in rural areas over 5 years after project completion.	None available at the present time.	To be completed within 18 months of project start.
Component 2: Baseline energy data collection and monitoring for SE4All Outcome 2: Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision- making on the basis of quality energy data	Capacity of stakeholders developed.	Not available at the present time.	To be completed within 12 months of project initiation.
Output 2.1: National survey conducted on energy supply, consumption and demand,	Completion of national energy survey.	None available at the present time.	To be completed within 9 months of project initiation and

¹⁷¹⁷ MTR mentions 375. Once again, the difference seems to be due to inclusion of jobs created most implementation of the GEF project in the project document.

¹⁸ The MTR mentions 1000. The difference could be due to inclusion of additional beneficiaries due to creation of mini-grid and energy centres after implementation of the GEF project

Project Objective/ Component/ Outcome/Output ¹⁵	Indicator	Baseline	Target
disaggregated by sector, district and application			results validated by stakeholders by the end of Year 1.
Output 2.2: Energy database and information system established for data collected under Output 2.1	Existence of energy database and information system.	Not available at the present time.	To be completed within 9 months of project initiation.
Output 2.3: Energy modelling software in place to analyse the data, model scenarios and produce information that will promote RE policies	Energy modelling software being utilised.	Not available at the present time.	To be completed within months of project initiation and approved by the Government by the end of year 1.
Output 2.4: All energy-related data and plans in the country harmonized with the proposed National Energy Policy and New Climate Change Strategy	Harmonised data available.	No harmonisation taking place at the present time.	To be completed within 18 months of project start.
Component 3: Village-based energisation schemes Outcome 3: Successful establishment of a village-based energy service delivery model for replication nationally.	Availability of business model.	No such model available now.	To be completed within months of project start.
Output 3.1: Completed pre-feasibility studies for mini-grids in 20 village communities (see Table 3 below) spanning 5 of Lesotho's 10 districts.	Pre-feasibility studies completed.	No such prefeasibility studies undertaken at the present time.	Completed within 12 months of project start.
Output 3.2: Operational mini-grids in 10 village communities and 10 Energy Centres in the 5 identified districts, viz; Mphahle's Hoek, Mphahlotlong, Thaba-Tseka, Qacha's Nek and Quthing	Mini-grids and Energy Centres operational.	None at the present time.	All 60 village-based RET mini-grids and 20 Energy Centres (project and immediate post-project) constructed and operational.
Output 3.3¹⁹: identify 50 additional sites for the construction of mini-grids and 10 additional sites for Energy Centres, and secure the interest of the private sector to develop these sites.			
Output 3.4: Capacity of national and district-level energy officials developed on best practices and opportunities for decentralized village energisation models in off-grid areas	Existence of capacity development material.	None at the present time.	Capacity development completed within 24 months of project start.
Output 3.5: Financial Support Scheme established to support private sector investment in village-based energization through mini-grind / Energy Centres	Evidence of private sector investment in village-based energisation through mini-grids/Energy Centres.	None at the present time.	\$ 5 million invested by project end.
Component 4: Outreach programme and dissemination of results	Existence of outreach programme.	Lack of sufficient information to pursue programme.	Increased awareness among stakeholders in place to promote and develop RET-based mini-grids for village energy services.

¹⁹ Output 3.3 is not there in the results framework in the project document. However, it is covered in the Inception Report and the MTR report.

Project Objective/ Component/ Outcome/Output ¹⁵	Indicator	Baseline	Target
Outcome 4: Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region.			
Output 4.1: National Plan to implement outreach /promotional activities targeting both domestic and international investors.	Availability of national plan.	No such plan available.	Completed within 24 months of project initiation.
Output 4.2: Capacity development of concerned ministries/institutions to monitor and document project experience	Existence of capacity development material.	No capacity development programme.	10 staff from Government/other Institutions successfully trained by the end of project.
Output 4.3: Published material (including video) and informational meetings with stakeholders on project experiences/best practices and lessons learned	Existence of published material.	Lack of information on best practices and lessons learned.	Completed within 3 months of project end.
Output 4.4²⁰: Lessons learned and results dissemination workshops	Availability of workshops proceedings.	No such workshops held in the country.	Completed within 3 months of project completion.

2.6 Main stakeholders

Table 8 provides the list of main stakeholders along with the details of their respective roles (as envisaged at the time of project design) in the project

Table 8: List of main stakeholders²¹ involved in the SE4All project

Entity	Function/task/mandate	Involvement in SE4All
Government		
Department of Energy (DoE) of the Ministry of Energy and Meteorology (MEM) DoE – REU	DoE is responsible for policy development, setting policy goals, targets for implementers, inter-ministerial coordination, energy data management, oversight of energy imports and exports. DoE's Rural Electrification Unit (REU) contributes financial resources (from the Universal Access Fund) to LEC to carry out grid extensions village schemes identified for electrification and cross-border rural electrification with bulk supply from ESKOM	Responsible for the project implementation and oversight; Chairs the Project Steering Committee (PSC)
Lesotho Electricity Company (LEC)	LEC is responsible for transmission and distribution of electricity through the national grid (mainly reaching the urban and peri-urban areas)	Operates one off-grid hydro diesel hybrid system (at Semonkong) and operated two other systems (not operational) that served as a learning experience regarding implementation and willingness and ability to pay as well as operation and maintenance
Lesotho Water and Electricity Authority (LEWA)	LEWA regulates the electricity sub-sector in the country; issues of licenses for electricity activities; approves electricity tariffs; handles disputes between suppliers and customers, and monitors	LEWA is a member of the PSC and is particularly involved in Component 1 in

²⁰ Output 4.6 is not there in the results framework in the project document. However, this is covered in the text of the project document

²¹ Source: Mid Term Review Report

Entity	Function/task/mandate	Involvement in SE4All
	the implementation of Quality of Service and Supply Standards (QoSSS) LEWA collects levies charged to LEC for the UAF (approximately \$ 2 -3 million/year) <i>Note:</i> LEWA also regulates the water sub-sector	issues regarding the legal regulatory framework for mini-grid (off-grid) systems
Ministry of Development Planning (MDP)	MDP is mandated to coordinate Ministries, Departments, and Agencies towards achieving equitable economic development through developing national policies, plans and programmes	A member of MDP's Project Cycle Management Unit participates in the PSC
Ministry of Development Planning (MDP) – Bureau of Statistics (BOS)	BOS mandated “to set up a system for national official statistics on economic, social, demographic, including human resources, and environmental areas in relation to the development needs of Lesotho; and official statistics for purposes of economic and social planning, research, public information and international cooperation”.	BOS is a member of the PSC, and has been the main counterpart organization in the activities of Component 2
Ministry of Trade and Industry (MTI) - Department of Standards and Quality Assurance (DSQA)	DSQA is the focal point for standards and quality assurance. No national standards have been developed to date and industries in Lesotho have traditionally relied on the South African Bureau of Standards and ISO for voluntary standards facilities and quality assurance schemes.	DSQA is important in the part of regulations that deal with quality assurance of (imported) equipment and components and that standards should be established for their installation.
Ministry of Finance	MoF develops and implements macroeconomic policies that support inclusive growth, public financial management policies, systems and capacity to mobilize, allocate public financial resources.	A member of MoF's Debt Management Unit participates in the PSC
Ministry of Local Government	The Ministry of Local Government and Chieftainship Affairs is tasked with providing policy direction and support for local authorities, i.e., district councils and community councils	Five District Council Secretaries participate in the PSC
Ministry of Tourism, Environment, and Culture	The ministry is responsible for environmentally sound development and promotes tourism and culture to make Lesotho a top destination for visitors	The GEF Operational Focal Point (participates in the PSC)
NGOs, academia and private sector		
Technology for Economic Development (TED)	TED works on decentralized renewable energy production (biogas and solar) and energy-saving technologies (stoves), technical training.	Member of the PSC
Bethel Business and Community Development Centre (BBCDC)	BBCDC is a commercial and technical school located in a remote rural district of Lesotho and provides training in the overall subject of solar energy utilization and sustainable development.	In-kind contribution to the project as a co-financier
National University of Lesotho (NUL) – Energy Resource Centre (ERC)	The ERC is an independent entity in the university and endeavours to conduct studies in EE and RE to identify suitable technologies for Lesotho's needs, develop capacity to assess and implement related projects and promote renewable energy adoption. ERC organizes training modules in BSc/MSc programmes, as well as a full MSc in sustainable energy course (RE technologies, planning and policy, economic, community solutions)	The Head of the Department of Physics and Electronics of NUL participates in PSC
Lesotho Solar Energy Society (LSES)	LSES acts as a platform for the industry and clean energy expert groups to exchange information and implementation of an industry code of practice.	Mentioned as co-financier to the SE4All Project
Private companies	A number of companies are active in the area of renewable energy for electricity and thermal applications	Participation in the Call for Proposals (Component 3)

3. FINDINGS: PROJECT DESIGN AND FORMULATION

The main questions for terminal evaluation are; (please see Annex B)

- Were the project's objectives and components clear, practicable, and feasible within its time frame?
- Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed?
- Were lessons from other relevant projects properly incorporated in the project design?
- Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?
- Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?
- Were the project assumptions and risks well-articulated in the PIF and project document?
- Whether the planned outcomes were "SMART"?

3.1 Analysis of LFA/Results Framework

The log-frame of the project providing the objectives, the expected outcomes, and results along with corresponding indicators was presented in an earlier section of this report (please see Table 7). During the inception of the project, there were minor adjustments in the indicators of the project. No changes in the log-frame of the project were recommended at the time of MTR.

The indicators for the project objectives, outcomes and outputs meets the SMART²² criteria expect for the issues mentioned below.

- **The projected Global Environment Benefits (GHG Emission Reduction) are over ambitious and does not meet the SMART criteria:** As per the project document, the targeted direct GHG emission reduction for the project is 213, 680 tCO₂e over the lifetime of the RE systems. The breakup of the targeted direct GHG emission reduction of 213,680 tCO₂e, is as following
 - a) Ten mini-grids established with the grant support from the project - 3,565 tCO₂e
 - b) Additional 50 mini-grids which will become operational immediately post-project - 185,000 tonnes of tCO₂e
 - c) Ten Energy Centres established (each energy centre serving 5 villages – 400 households) with the grant from the project over the lifetime of 5 years of solar lanterns – 9000 tCO₂e
 - d) Ten Energy Centres (each energy centre serving 5 villages – 400 households) which get established immediately post project implementation – 9000 tCO₂e
 - e) Improved cookstoves over its five years lifetime - 7,115 tCO₂e

For the projected emission reduction due to pilots established post project sub-bullets b) and d) above are issues relating to measurability, time bound, and relevance. For the relevance it is important to keep in mind that as per GEF definitions, Direct GHG emission reductions are those emission reductions attributable to the investments made during the project's supervised implementation period, totalled over the respective lifetime of the investments. Given this, the mini-grids and energy centres established post-project cannot be considered as direct GHG emission reductions. For the facilities created post-project it will not be possible for the project to monitor the achievements, thus, there are issues relating to measurability and time-bound.

- In the log-frame of the project, the target for project objective level indicator, 'number of beneficiaries' is 3000. In this regard it is important to note that there is a mismatch between the targeted number of beneficiaries under this indicator and the number of beneficiaries that are considered while computing the direct GHG emission reductions (sub-bullets c and d above itself account for 4000 households).

²² SMART = Specific, Measurable, Achievable, Relevant, Time-bound

- For the GHG computations due to energy centres (sub-bullet c and d above), it is considered that in the baseline the consumption of paraffin (kerosene) for lighting by the households is 0.5 litre per day. Elsewhere in the project document (please see Box 1 in the project document), the baseline consumption of paraffin (kerosene) for lighting per household is noted to be one litre every four days.

It is recommended (please see recommendation 3) the for the GEF projects in the focal area of climate change mitigation, the computation of global environmental benefits should be done keeping in mind the GEF methodology and in a conservative manner.

Except for the issues with the targets for the indicators, which were discussed in the above paragraphs, the project objectives and the three outcomes of the project were clear, predictable, and feasible within the implementation timeframe of the project. The Outcomes were predictable meaning that the activities and the corresponding Outputs specified in the 'Project Design' are leading to the desired Outcomes of the project.

3.2 Assumptions and Risks

During the project development stage, possible risks towards smooth implementation of the project were identified and the risk mitigation measures were proposed. Different risks that were identified during the project formulation and the recommended mitigation measures are provided in Table 9.

Table 9: Risk Analysis of SE4ALL Project (as per Project Document)

Risks	Rating	Impact/Mitigation Approach
Policy: Framework to encourage the private sector to invest in renewable energy-based rural energy services.	High	There exists the possibility that the Government may not act soon enough on a policy framework that will encourage the private sector to invest in renewable energy-based rural energy services; as examples, the 2003 Energy Policy and the 2013 Renewable Energy Policy have been in draft form for quite some time. If this were to happen, project implementation will get hampered. However, the Government is strongly motivated to provide access to modernised energy services to the large rural population that utilises traditional forms of energy, to improve their quality of life and for income-generating activities, and is driven by its plans to meet both the objectives of the Lesotho Vision 2020 and the S4All Initiative. Towards this end, it only very recently approved the new 2015 Energy Policy, thus sending the right signal to stakeholders. Regarding the 2013 Renewable Energy Policy, it is still in draft form. However, the donor community will work with the newly-installed Government to have the right policy in place and preliminary indications are that this may materialise sooner, rather than later. Moreover, project interventions under Component 1 will assist in mitigating this risk.
Institutional: Dependence on SAPP imports could increase or become more attractive relative to development of the country's indigenous RETs.	Moderate	The risk of continued dependence on electricity imports from the Southern African Power Pool, mainly based on coal generation, will remain in border areas, to the detriment of renewable energy based decentralised options. However, this does not pose a risk deep inside the country, as stringing long electricity lines does not make economic sense due to the small loads and difficult terrain. Moreover, this risk will be mitigated by the fact that, as per existing projections (ref. Southern African Power Pool: Planning and Prospects for Renewable Energy, IRENA 2013) which indicate that "the share of renewable technologies in electricity production in the Southern African Power Pool region could increase from the current level of 10% to as high as 46% in 2030".

Financial: SE4All funding resources may not materialize, thus making the CAA and IP of little use.	Moderate	If this were to happen, it will provide a set-back in the development of RETs in the country, as the project does not have leverage over the high-level global commitments and funding mechanisms established as part of SE4All. However, indications from the country action process developed by the SE4All Secretariat are that those countries that expeditiously complete their CAA and IP documents will be prioritized as regards access to dedicated SE4All funds when and if they materialize. Project interventions under Component 4 will assist in mitigating this risk by targeting both domestic and international investors.
Poor investment climate.	Moderate	The fact that Lesotho ranks in the 128 th place in “Ease of doing Business”, as per the WB/IFC “Doing Business 2015” publication and 115 th in enforcing contracts might act as a deterrent for investors in RETs., although these have not discouraged investors’ willingness to invest in the garment industry to benefit from business opportunities available under AGOA. The project was to put in place a Financial Support Scheme that will be directed at minimising the financial risks that lenders and investors may face in doing business targeting RETs for the rural areas.
Technology: Renewable energy equipment of poor quality introduced in the country.	Moderate	Poor quality of equipment and shoddy installation have been shown to have plagued some SHS in Lesotho. Hence, the Government was to put in place, through the Department of Standards and Quality Assurance (DSQA), strict controls on the standards of renewable energy equipment that can be imported and installed in the country. In addition, the Government will ensure that all installations and maintenance should be undertaken only by licensed and certified technicians as per established electricity codes.
Environmental/ Climate Change.	Moderate	There are multiple environmental risks, as outlined in Lesotho’s Second National Communication to UNFCCC (e.g., reduced rainfall that can affect water flows, land, and watershed degradation due to erosion and population pressures) that can affect energy planning and infrastructure investments. These are being and will continue to be addressed through capacity development of Government staff on the key aspects to address national challenges associated with weather, climate, and climate change.

Apart from the risks identified in the project document, the PIF mentions some additional risks, which includes political, lack of data sharing amongst government organisations, poor M&E activities, lack of private sector participation, lack of donor coordination and collaboration. One of the risks which could not be foreseen at the time of project design was the COVID 19 pandemic.

3.3 Lessons from other relevant projects

In the past attempts were made to provide electricity to unelectrified rural areas in Lesotho. Some of these included unsuccessful attempts to establish mini-grids by the government agencies/ social organisations. Donor funded projects were also implemented in the country to make electricity available to the unelectrified rural communities.

As mentioned in the project document, in the baseline the experience in Lesotho with isolated grids relates only to some micro/mini hydropower stations and a hybrid hydro-diesel-based isolated grid at Semonkong. An isolated diesel-based mini-grid operated for a few years in Sekake (about 45 km from Qacha’s Nek), but the supply of diesel fuel combined with expensive maintenance and repair resulted in the Government putting an end to diesel electricity generation there and connecting the town to the South African Grid. During 2007 – 2009, the Government installed 5x50 kVA diesel generator sets in Ketane, approximately 300 km southeast of Maseru and constructed a distribution system. However, this power station never went into operation due to the difficult terrain for diesel fuel transportation, the

very high cost in fuel delivery (about \$ 140/barrel) and the absence of locally available capacity to operate and maintain it.

In the baseline Lesotho does not have any experience with renewable energy-operated isolated mini-grids. To date, SHS were installed under the LREBRE²³ project and the AfDB-financed project which saw the installation of 200 fee-for-service SHS during 2009 – 2013. The other experience with renewable energy in the country relates to PV water pumping, telecommunications, individual street lighting units consisting of a mast, PV panel, battery, and LEDs, etc. Many of these installations were financed by the Energy and Environment Partnership Programme (EEP) for Southern and Eastern Africa (EEP is jointly funded by the Ministry for Foreign Affairs of Finland, the Austrian Development Agency, and the UK Department for International Development (DFID)), and installation of PV/solar water heaters at rural clinics under the Millennium Challenge Account. The largest PV installation in the country is the 280-kW grid-connected plant that was built with support from the Government of Japan at the Moshoeshe I International airport and which commenced operation in September 2013.

One of the key lessons learnt from the LREBRE project, is that many SHS failed during the initial months after installation due to the poor quality of the imported equipment/ancillary components and shoddy installation. Hence, in future interventions with renewable energy technologies, care must be exercised that only quality equipment and components are allowed for importation into the country and that standards be established for their installation. Lessons learned from the LREBRE project and other past projects and experiences were considered while designing the SE4ALL project.

3.4 Planned stakeholder participation²⁴

In an earlier section of the report (please see section 2.6) the roles of the important stakeholders of the project were highlighted. There are provisions in the project design to implement the mechanisms to ensure an effective participation by the stakeholders.

As per the plan the commencement of the Project was to happen with an inception meeting in which all the important stakeholders were to participate and contribute. Apart from the inception meeting, the project design provided for stakeholder consultations as a part of activities under some of the targeted outputs of the project as follows;

- Stakeholder consultations to develop national plans and programmes outlining and prioritising various courses of action while working on the Country Action Agenda (Output 1.1).
- Stakeholder consultations for preparation of the Investment Prospectus (Output 1.2).
- Stakeholder consultations while designing the FSS
- Meetings with the stakeholders to share the project experiences/best practices (Output 4.3).
- Interactions with the stakeholders during the end of the project workshop where the lessons learnt and results of the project are to be shared (Outcome 4.4)

The project document has also provided for regular visits to the sites of the pilots by the project implementation team and UNDP CO to ensure stakeholder consultations at the district level and with the communities. Apart from the planned stakeholder consultations the project design has provided for a 'project board'. The project board has representation from all the important stakeholders and provides an opportunity for formal and informal consultations amongst the stakeholders.

²³ UNDP-GEF project entitled "Lesotho Renewable Energy Based Rural Electrification" (LREBRE). The objective of this project was improvement of people's livelihoods by promoting the utilisation of renewable energy to provide basic electricity services (through SHS) to the rural areas not connected to the grid

²⁴ As provided in the Project Document

3.5 Replication approach

One of the goals of the project is to put in place an enabling environment for the development of a suitable business model and financial instruments for their viability and replication of the mini-grids and energy centres. It will also showcase a new business model that combines confidence with sustainability and replication.

For replication, the project has provided for bottom-up approach within the overall policy/investment framework that is envisaged to be developed under the project, to promote renewable energy-based mini-grids for rural electrification. The project design envisages that the technical assistance for barrier removal and institutional strengthening followed by demonstration of successful pilots under the project, will facilitate the replications. Replication is expected as the project will put in place the institutional, policy and technical conditions required to generate interest in the private sector operators for the development of additional projects.

Outcome 4 of the SE4ALL project is aimed towards dissemination of the results of the projects to facilitate replication of the village energy models (mini-grids and energy centres) demonstrated at the selected pilot locations, at other locations which are in the similar situation in terms of the connectivity to the main electricity grid of the country.

3.6 UNDP comparative advantage

UNDP's work on sustainable energy spans two decades. UNDP is an accredited multilateral development agency of the Global Environment Facility (GEF) and is also accredited to the Green Climate Fund. In this capacity, UNDP offers countries specialized integrated technical services for eligibility assessment, programme formulation, mobilization of co-financing, implementation oversight, results management and evaluation, and knowledge management.

UNDP's strengths lie in the extensive experience assisting governments with designing and implementing policies and regulations, and with piloting mini-grid investment and financing. UNDP has on-the-ground experience supporting mini-grids in developing countries that builds on over two decades of experience in promoting sustainable energy solutions around the world. Apart from the Africa Mini-grid Program²⁵, the UNDP has an active mini-grid portfolio that includes GEF-funded projects supporting renewable energy mini-grids (solar-PV battery; mini-hydro; biomass) in 12 countries in Africa (23 countries globally).

3.7 Linkages between project and other interventions within the sector

As was mentioned in section 3.3, in the past efforts were made to provide electricity to the rural households in the areas not connected to the electricity grid under the UNDF-GEF project LREBRE for SHS. However, this project was not successful.

The only other (other than the SE4ALL project) ongoing program currently being implemented in the country for providing electricity to the rural households is the one being implemented by the 'World Bank'. Table 10 provides the details of this project. Due to COVID 19 this world Bank supported project is running behind schedule.

²⁵ AMP is a pan Africa (18 countries) program for mini-grids. It is a GEF supported program whose implementation is expected to start in 2022. There are a number other donor agencies supporting the project.

Table 10: World Bank initiatives to promote off-grid renewable energy solutions in Lesotho²⁶

Donor	Funding	Dates	Technology	Objectives
The World Bank's International Development Association (IDA) and Climate Investment Funds.	USD 52.9 million (USD 40 million from the IDA, USD 12.9 million from Climate Investment Funds)	2019 to 2021	Grid extension to peri-urban areas, and the establishment of mini-grids promotion.	<p>The project's overall objective is to scale up renewable energy-based off-grid electrification in rural and peri-urban areas of Lesotho. The programme consists of three components,</p> <ol style="list-style-type: none"> 1. grid extension to peri-urban areas of Lesotho (IDA USD 30 million equivalent) which will be implemented by the LEC 2. Electrification by Mini-grids (IDA USD 10 million equivalent) supporting the electrification of areas where mini-grids represents the least-cost option from a country perspective, as underpinned by the EMP and geospatial analysis. The focus will be on solar hybrid systems - solar generation with battery storage and diesel 3. Technical Assistance and Implementation Support (SREP Grant USD 2.9 million equivalent)

3.8 Management arrangements

The project has been implemented through the NIM execution modality by the Department of Energy (DoE) under the supervision of the Ministry of Energy and Meteorology (MEM) as the national implementing partner (NIP). DoE/MEM has provided office space to the project team as part of its contribution. It has also assigned a senior officer as the National Project Director (NPD) to: (i) coordinate the project activities with those of other Government entities like the Bureau of Statistics (BoS) of the Ministry of Development Planning, Lesotho Electricity and Water Authority (LEWA), Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, National University of Lesotho, etc. (ii) certify the expenditures in line with approved budgets and work-plans; (iii) facilitate, monitor and report on the procurement of inputs and delivery of outputs; (iv) approve the Terms of Reference for consultants and tender documents for sub-contracted inputs; and (v) report to UNDP on project delivery and impact.

The National Project Director is being assisted by a Programme Management Unit headed by a Project Manager (PM), recruited through a competitive process. As the project manager left during the implementation of the project, a Project Officer (PO) was hired to manage the implementation for the remaining period of implementation. The PO is responsible for overall project coordination and implementation, consolidation of work plans and project papers, preparation of quarterly progress reports, reporting to the project supervisory bodies, and supervising the work of the project experts and other project staff. The PO also closely coordinates the project activities with relevant Government and other institutions and hold regular consultations with project stakeholders. In addition, a Project Assistant (PA) has been recruited to support the PO on administrative and financial issues.

The Project Officer is supported by an international part-time Chief Technical Adviser (CTA), short-term international and national experts/consultants who supports implementation of specific technical assistance components of the project. Contacts with experts and institutions in other countries that already have experience in implementing renewable energy-based rural electrification projects, and related policy and financial support measures has also been established.

²⁶ Source: Lesotho: Energy and the poor – UNCDF, UNDP

The PSC, chaired by the Ministry of Energy and Meteorology was established to provide strategic direction and management guidance to project implementation. The PSC consists of representatives of relevant Ministries and Government Departments/Directorates (Ministry of Development Planning, Bureau of Statistics (BoS), Lesotho Electricity and Water Authority (LEWA), Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, National University of Lesotho, the UNDP Country Office, the National Project Director as well as representatives of the NGO community and women's groups. Representatives of the private sector are invited to participate as observers.

Project implementation is governed by the provisions of the Project Document and Programme and Operations Policy and Procedures (POPP). UNDP Lesotho maintains an oversight and management of the overall project budget, utilizing a direct payment modality. UNDP Lesotho's support services are charged in accordance with the Agreement between the NIP and UNDP for the Provision of Services by UNDP. Governance of the project is to be supported through annual work planning as well as reporting and monitoring the delivery of results and impact on the basis of the results framework. The annual work plans as well as progress reporting will be the responsibility of the project management and will be approved by the NPD in close consultation with UNDP.

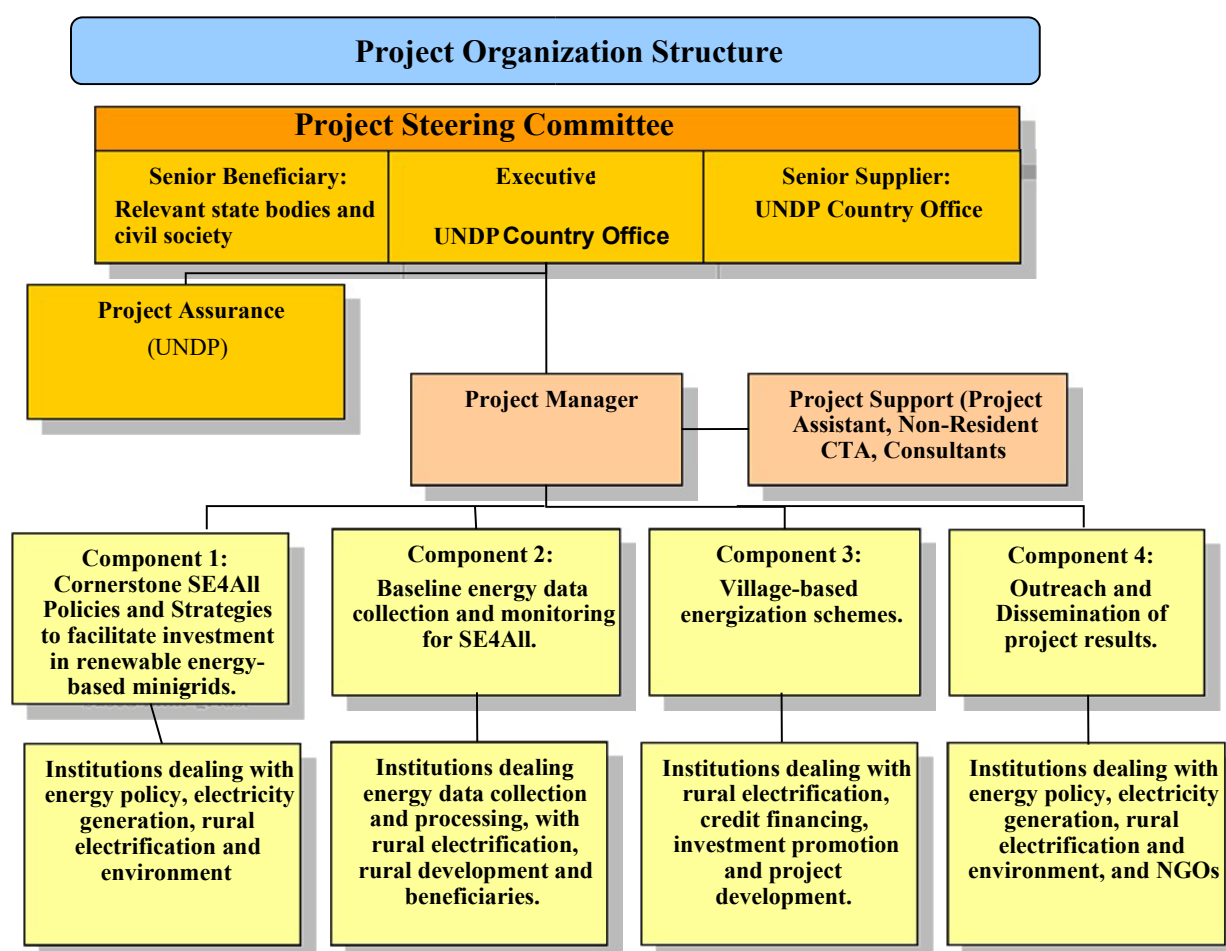


Fig 2: Project Organization Structure

UNDP CO provides specific support services for proper project implementation, as required, through its Administrative, Programme and Finance Units and through support from the Addis Ababa Regional Service Centre. Specific support services include the support for annual PIR review, midterm review and terminal evaluation. An organigramme representing the implementation arrangement is presented in Fig. 2 above.

4. FINDINGS: PROJECT IMPLEMENTATION

4.1 Adaptive management and Feedback from M&E used for adaptive management

The main questions for terminal evaluation are; (please see B)

- Did the project undergo significant changes as a result of recommendations from the mid-term review? Or as a result of other review procedures? Explain the process and implications.
- If the changes were extensive, did they materially change the expected project outcomes?
- Were the project changes articulated in writing and then considered and approved by the project steering committee?
- Whether feedback from M&E activities was used for adaptive management?
- Whether changes were made to project implementation as a result of the MTR recommendations?

The project start date is 13 October 2016 (date of signature of project document). The inception meeting of the project happened in November 2016. Minor changes in the project design were recommended during the project inception.

The Project's independent Mid-Term Review (MTR) was conducted in December 2019. The MTR recommended several actions to make better link between the project outcome and impact and to boost the delivery of project results. The project did not undergo any significant change as a result of recommendations from the mid-term review. Further, there were no changes in the project design and project activities during its implementation.

Monitoring and Evaluation activities for the project has been as per the requirements of GEF, Project inception was carried out and the inception report was prepared, PIR and APRs were prepared as per the requirements. However, M&E has not been effective. This is largely because no annual work plans were prepared for the initial two years (2017 and 2018) or project implementation, due to which the activities for different components of the project did not get carried out in the required sequence.

The project document for the SE4All project has missed on including the mandatory Annex providing a multi-year work plan. The template of the Project Document for GEF 5, mentions 'multi-year workplan as one of the mandatory Annexes (normally Annex 3) to the Project Document. The Project Document of the SE4ALL has included Annex, 1, Annex 2, Annex 5 etc. (there are no Annex 3 and Annex 4 in the Project Document). The absence of a multi-year workplan is one of the reasons for missing timely action towards the implementation of many important activities (including the pilot projects for mini-grids and Energy centres). It is recommended that the project document for all future GEF projects include all the Mandatory Annexes (Please see recommendation 2). Absence of a multi-year workplan in the project document could be one of the reasons for the oversight regarding the need to prepare workplan for every year and get it approved. Though the TOR for the chief technical advisor, hired for the project clearly mentions preparation of annual work plan as one of the responsibilities, the annual work planning exercise got missed for the initial two years of project implementation. Though, for the subsequent year for project implementation, AWP's were prepared, there was no prioritization for the activities which were to be completed during the initial years of project implementation.

Nevertheless, absence of proper work planning, coupled with unforeseen risks such as Covid-19 and the un-allowability for any national institution to manage the FSS are the main reasons for the under performance of the SE4ALL project.

One of the contentious issues in the project is EoP target for Output 3.2 and Output 3.3 and the corresponding targets for the Project Objective level indicators (including the core indicators). As was pointed out in the earlier section of this report (please see section 3.1), the targeted direct reduction in the emission of GHG has considered the initial set of 10 mini-grids and 10 energy centres to be

established as pilots under the project, plus an additional set of 50 mini-grids and 10 energy centres which were to be established immediately post implementation of the SE4All project. This additional set comprising of 50 mini-grids and 10 energy centres was to be facilitated under the project. As was pointed out in Section 3.1, the GHG emission reductions due to the additional set of mini-grids and energy centre does not qualify to be counted as direct GHG emission reductions (as per GEF definition and methodology). It is a project design issue. In the PIRs the project team has put the target for Output 3.2 to 10 mini-grids and 10 energy centres. Also, the project team has dropped Output 3.3. In this regard, it is important to note the following:

- Any change in the project design needs to be articulated and considered by the project board/PSC for approved. The change becomes effective only after it has been approved. There is no evidence to suggest that this required procedure was followed.
- Change in the targets for Output 3.2 and Output 3.3, has a direct bearing on the Project Objective level targets (including the targets for core indicators for the climate change focal area). For any changes in Outcome 3.2 and Output 3.3, corresponding changes in the targets for the indicators at the project objective level would be needed (which was not done by the project team). As is known any change in the targets for the core indicators is not accepted under the GEF procedures.

Apart from the changes in Output 3.2 and Output 3.3, the project team has dropped Outcome 2.4, the PIR for the year 2022 mentions that this Output has been dropped after deliberations between the project team and UNDP, however, there is no evidence (record) that PSC approval was sought and received for this change.

One of the adaptive measures taken by the project is the amendments in the agreement between UNCDF and the parties selected for establishment of 'Energy Centres' and the 'Mini-grids'. These amendments relaxed the 'Key Performance Indicators (KPIs)' which were the conditions precedent for disbursement of grant money/performance incentive to the parties creating the 'Energy centres' and the 'Mini-grids' (please see section 5.1.3 as well). The need for this adaptive measure arose as the concessioners for the mini-grid got selected towards the end of the project implementation and the time available for meeting the conditions precedent was not sufficient. In case of 'energy centres' the amendment was made as most of the ECs were not able to meet the targets required for disbursement of, the performance-based incentive. For the energy centres, this adaptive measure that was introduced still fell short as it created a cash flow problem for the energy centres.

Apart from the amendments in the agreements between the concessionaires and UNCDF for grants for mini-grids, there is no evidences to suggest that adaptive measures were taken from the feedback from the M&E activities.

4.2 Partnership arrangements

The main questions for terminal evaluation are; (please see Annex B)

- Were there adequate provisions in the project design for consultation with stakeholder?
- Whether effective partnerships arrangements were established for implementation of the project with relevant stakeholders involved in the country/region, including the formation of a Project Board?
- Whether lessons from other relevant projects incorporated into project implementation

In an earlier section of the report (please see section 3.4) details about the provisions made in the project design for consultation with the stakeholders were provided. Section 3.4 also provided details about the planned partnership arrangement with the stakeholders for implementation of the project and the formation of the project board. The project went ahead with the partnership arrangements as planned.

The PSC/ 'Project Board' was dully constituted. Partnership arrangements were dully made with different agencies of the national counterparts for effective implementation of the project. UNDP CO

Lesotho, entered into an agreement with Lesotho Government for the Provision of Support Services during implementation of the project.

4.3 Project Finance

The main questions for terminal evaluation are; (please see Annex B)

- Whether there was sufficient clarity in the reported co-financing to substantiate in-kind and cash co-financing from all listed sources?
- What are the reasons for differences in the level of expected and actual co-financing?
- To what extent project components supported by external funders were well integrated into the overall project?
- What is the effect on project outcomes and/or sustainability from the extent of materialization of co-financing?
- Whether there is evidence of additional, leveraged resources that have been committed as a result of the project?

The planned expenditure for the project and its distribution amongst different components of the project is given in Table 11.

Table 11: Project Cost (as per project document) (figures in USD)

	Yr.1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Total
Outcome 1	109,000	95,000	73,000	63,000	60,000	400,000
Outcome 2	77,500	77,500	47,500	50,000	47,500	300,000
Outcome 3 (GEF only)	365,000	640,000	595,000	485,000	415,000	2,500,000
Contractual Services – Companies (Outcome 3)	0	50,000	50,000	50,000	50,000	200,000
Outcome 3 (GEF + UNDP)	365,000	690,000	645,000	535,000	465,000	2,700,000
Outcome 4	31,000	31,000	31,000	28,000	19,000	140,000
Project Management (GEF project management +Contractual Services)	71,410	71,410	71,410	71,410	74,360	360,000
Sub Total GEF	613,910	874,910	777,910	657,410	575,860	3,500,000
Sub Total UNDP TRAC	40,000	90,000	90,000	90,000	90,000	400,000
Grand Total	653,910	964,910	867,910	747,410	665,860	3,900,000

Table 12 provides the details of the financing and co-financing committed by different agencies at the project design

Table 12: Financing and Co-financing committed at the time of project design (figures in USD)

	Yr.1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Total
GEF	613,910	875,910	778,910	655,410	575,860	3,500,000
UNDP	40,000	90,000	90,000	90,000	90,000	400,000
National Government	1,000,000	2,500,000	2,000,000	1,700,000	1,267,837	8,467,837
European Union	500,000	1,000,000	1,500,000	2,000,000	2,900,000	7,900,000
Private Sector (Bethel)	300,000	500,000	500,000	400,000	300,000	2,000,000
Private Sector (LSES)	50,000	100,000	125,000	150,000	75,000	500,000
TOTAL	2,503,910	5,065,910	4,993,910	4,995,410	5,208,697	22,767,83

Table 13: Planned and Actual Co-financing at project design and end²⁷ (figures in USD)

Sources	Name of Co-financier	Type of Co-financing	Amount (as per CEO Endorsement)	Actual co-financing ²⁸
Recipient Government	Ministry of Energy and Meteorology (MEM) & associated energy agencies	Grants	8,467,837	10,179,150
Donor Agency	European Union	Grants	7,900,000	4,743,006
Private Sector	Bethel	Grants	2,000,000	213,249
Private Sector	Lesotho Solar Energy Society	In Kind	500,000	0
GEF Agency	UNDP	Grants	400,000	91,152
	Total		19,267,837	15,226,557

²⁷ Prepared based on the information provided by PMU

²⁸ Actual co-financing as on 30 June 2022

The project has successfully leveraged the co-financing as per the commitments made at the time of CEO endorsement. Based on the funding by GEF the project disbursement as of 30/06/2022 is USD 2,153,046. This is equivalent to 61.5% of total GEF funding

4.4 Monitoring and evaluation: design at entry

The main questions for terminal evaluation are; (please see Annex B)

- Is the M&E plan well-conceived at the design stage?
- Is M&E plan articulated sufficient to monitor results and track progress toward achieving objectives?
- Was the M&E plan sufficiently budgeted and funded during project preparation and implementation?
- How effective are the monitoring indicators from the project document for measuring progress and performance?

A monitoring and evaluation plan was put in place at the time of project design. There was a provision to review the plan at the time of project inception. The responsibilities of M&E activities were entrusted upon UNDP CO. As per the project document, the M&E activities include approving annual implementation work plans, budget revisions, monitoring progress, identifying problems and suggesting remediating actions, project evaluation etc.

As per the plan, the project was to be monitored through periodic quarterly and annual monitoring. There were provisions for preparation of APR/PIR. The APR/PIR combines both UNDP and GEF reporting requirements. Provisions were also made in the project design for an independent Mid-Term Review and the Terminal Evaluation. GEF Focal Area Tracking Tools (Core Indicators) were also to be prepared before the MTR and at the TE.

The set of indicators to be monitored and the corresponding targets were provided in the log-frame of the project. As mentioned earlier (please see section 3.1) there are issues with some of the indicators in terms of achievability and the measurability. The results of the monitoring and evaluations were to be provided to the project board.

The M&E plan at the design stage was well conceived. The plan was well articulated and was sufficient to monitor results and track the progress toward achieving the objectives. The project document specifies the need for preparation and approval of the annual workplans, however, the project document missed to include the mandatory Annex for multi-year workplan. Some of the other minor issues with the provision of M&E in the project design includes absence of a plan to monitor performance of the core indicator (GHG mitigation achieved), absence of the need to prepare end of the project report and a list of parameters to be monitored to effectively monitor the progress of the project towards achievement of results. Except for these issues the M&E plan provided in the project design was robust. Adequate provisions were made in the budget for monitoring and evaluation activities. **The M&E design at entry is rated²⁹ as Satisfactory.**

²⁹ Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

4.5 Monitoring and evaluation: implementation

The main questions for terminal evaluation are; (please see Annex B)

- Whether the logical framework was used during implementation as a management and M&E tool?
- What has been the level of compliance with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports?
- What has been the effectiveness of the monitoring reports and evidence that these were discussed with stakeholders and project staff?
- What is the extent to which follow-up actions, and/ or adaptive management, were taken in response to monitoring reports (APR/PIRs)?
- Whether APR/PIR self-evaluation ratings were consistent with the MTR. If not, were these discrepancies identified by the project steering committee and addressed?

The quarterly monitoring reports were produced regularly. Annual PIRs were produced using the set of indicators provided in the log-frame. The PSC has been meeting regularly Meetings between the project team and the focal points at the ministry were held regularly for quick decision making and to efficiently solve any difficulties or delays.

As was mentioned in Section 4.1, there are issues as far as the work planning is concerned. No annual work plans were prepared for the years 2017 and 2018. Thus, in the initial phase of the project implementation the requirements regarding the preparation and approval of the workplan were not followed. There is no evidence to suggest, adaptive actions as a follow up from PIR reports. APR/PIR self-evaluation ratings were consistent with those at the MTR

M&E Plan Implementation has been rated as Moderately Satisfactory. Overall quality of M&E is rated as Moderately Satisfactory

4.6 UNDP and Implementing Partner implementation / execution coordination, and operational issues

The main questions for terminal evaluation are; (please see Annex B)

- Whether there was an appropriate focus on results?
- Was there adequate UNDP support to the Implementing Partner and project team?
- Quality and timeliness of technical support to the Executing Agency and project team
- Were the management inputs and processes, including budgeting and procurement adequate?

The project has been implemented under NIM by the Department of Energy (DoE) under the supervision of the Ministry of Energy and Meteorology (MEM) as the national implementing partner (NIP). The Director of Energy has been assigned as the National Project Director (NPD).

A Project Management Unit (PMU) was established to oversee the implementation of the project on a day-to-day basis. The PMU assisted the DoE and other stakeholders in performing their respective roles as implementing partners. The Project Officer/Coordinator runs the project on a day-to-day basis on behalf of the Implementing Partners. PMU followed UNDP procedures on implementation of NIM projects.

UNDP country office provided overall program, administrative, and financial oversight of the project progress in accordance with the common UNDP procedures and tracking tools available in the Atlas system. UNDP CO also provided support for implementation of the project as per the agreement with the government. The support services provided by UNDP included recruitment, procurement, financial management etc.

When it comes to the oversight support and ensuring that the project follows the requirements in terms of work planning and approval, UNDP has fallen short of the requirements. **Quality of UNDP Execution has been rated as Moderately Satisfactory.**

The project inception happened in a timely manner, and the project's implementation started in a timely manner. There were delays in implementing some of the activities, particularly those pertaining to setting up of mini-grids and energy canters. These delays are largely attributable to the absence of annual work planning and prioritization of the activities as per the requirements of the project design and the results framework as well as the challenges with the setting up of the FSS and Covid-19.

The quality of Implementation by the Implementation Agency is rated as Moderately Unsatisfactory.

5. FINDINGS: PROJECT RESULTS

5.1 Overall results

The main questions for terminal evaluation are; (please see Annex B)

- What has been the achievements of the objectives against the end of the project values of the log-frame indicators, with indicators for outcomes/outputs, indicating baseline situation and target levels, as well as position at the close of the project?
- What are the achievements /Results in terms of contribution to sustainable development benefits, as well as global environmental benefits (direct and indirect GHG emission reduction)?
- How does the GEF Tracking Tool/Core Indicators at the Baseline and the one completed right before the Midterm Review compare with that, prepared at the time of Terminal Evaluation?

The summary of the attainment of the results and project objectives is presented in this section of the report. The achievement of results against Outcomes of the projects has been presented first, followed by the presentation of the achievement of the project goals and the project objectives. This is because the achievements of the project goals and the objectives has been assessed both, in terms of the indicators (for project goals and objectives as given in the log-frame) and in terms of the achievement of results for different Outcomes. As per the requirements, the evaluation regarding attainment of the results has been carried out for the four individual outcomes of the project. The assessment regarding attainment of results has been carried out in terms of the indicators provided in the log-frame. Wherever relevant, the reasons for non-attainment of the target values of the indicators have also been provided.

The mandatory ratings for the attainment of overall results have also been provided. Although, rating is not mandatory for achievement against each output, the rating has been provided. This has been done to facilitate the ratings for the individual Outcome and the project at an aggregate level. The evaluation of the attainment of overall results has been carried out keeping in mind the main questions for terminal evaluation, as given in the Box at the beginning of this section.

5.1.1 Attainment of results– Component 1 (Outcome 1)

The objective of this component and the corresponding Outcome was to introduce policies and strategies which increase the investment in RET deployment, including that for establishing the isolated mini-grids. The project was to address the policies and strategies necessary to promote and facilitate private sector investment in isolated mini-grids. Development of policies and strategies was to be followed up with development of the investment plans (Output 1.3) geared towards creating conditions that would enable consumers, to have access to affordable energy services and investors to enjoy adequate returns on their investments.

Table 14 provides the details regarding the projected Outputs of component 1 (Outcome 1) of the project along with the indicators, the baseline situation, the targets, and the level of attainment of the targets (in terms of the indicators). The Outputs and the indicators are as per the results framework for Outcome 1. For reference, the values of the indicators at the time of MTR and those self-assessed in PIR for the terminal year (2022) are also provided in the table.

Table 14: Attainment of results: Outcome 1:

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁰
Outcome 1: SE4All cornerstone policies and	Existence of policies and strategies	Not available at the present time.	To be completed and approved by Government	Rating at MTR: Satisfactory			MS

³⁰ Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁰
strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids.			within 12 months of project initiation.				
Output 1.1: Developed and approved SE4All Country Action Agenda (CAA), following extensive stakeholder consultations.	Existence of Country Action Agenda.	Not available at the present time.	To be completed and approved by Government within 12 months of project initiation.	SE4All Country Action Agenda (CAA) for Lesotho developed and validated by stakeholders. However, they are pending Cabinet approval, and are therefore not official yet.	The CAA has been developed and validated by stakeholders in 2018. However, the CAA has not been formally approved by the government.	<ul style="list-style-type: none"> Mini Grid Regulations approved Draft CAA document approval not yet done 	MS
Output 1.2: Approved/ adopted SE4All Investment Prospectus (IP)	Existence of Investment Prospectus.	None available at the present time.	To be operationalized within 12 months of project initiation.	Investment Prospectus (IP) for Lesotho developed and validated by stakeholders. However, they are pending Cabinet approval, and are therefore not official yet.	The IP has been developed and validated by stakeholders in 2018. However, the IP has not been formally approved by the government.	<ul style="list-style-type: none"> Draft IP document Approval of IP is pending 	MS
Output 1.3: Strategies and investment plans related to mini-grid applications and village energization schemes	Existence of strategies and investment plans. Investment of \$ 10 million in RETs in rural areas over 5 years after project completion.	None available at the present time.	To be completed within 18 months of project start.	Development of a Regulatory Framework for RE-based MiniGrids (and Energy Centres completed in April 2019 (still draft)	The Programme's mini-grid developer (IPower) has been successful in raising commercial finance (loan) through the EU's Electrifi initiatives amongst other International Finance Institutions (IFIs). The total value of the commercial finance is over €1 million.	<ul style="list-style-type: none"> Approved Mini-grid regulations provides for methods to determine the electricity tariff to be charged. The investment realized in the RET is the sales of some Solar Lights at the Energy Centres established under the SE4All project. Although, the concession agreements have been signed for the mini-grids, actual investment done till the time of TE was marginal. The concessioner for mini-grid has been able to get the approval from the IFIs for funding, however actual investment is not much (as is evident from the progress made towards establishment of the mini-grids) 	MU

The project has led to successful development of the CAA, the Investment Prospects, and the regulations for the mini-grids. However, approval and formalisation at the country level could be achieved only for the regulations for the mini-grid. The CAA still awaits either cabinet or ministerial approval. Either of the two would demonstrate government commitment to the CAA.

When it comes to development of the investment plans (Output 1.3), the project has fallen short of the performance. No systematic efforts could be put in to develop the specific investment plans, to ensure availability of electricity to rural communities at an affordable price while providing adequate returns on investment to the private sector investors. It may be argued that the regulations for the mini-grids provides a method to fix the electricity tariff to be charged by the operations of the mini-grid, and

mentions the need to provide a reasonable returns the investors. However, the regulations have not quantified the level of return to the investors, which can be considered as reasonable.

Based on the achievement of the indicators for different outputs, the achievement of Outcome 1 of the project is rated as Moderately Satisfactory (MS).

5.1.2 Attainment of results – Component 2 (Outcome 2)

Component 2 of the project was targeted towards systematic collection and analysis of the energy data in the country, leading to better energy planning. This component of the project also had the provision for developing the capacity within the country to analyse the energy data, develop scenarios and energy planning. This was to be achieved by procurement of a suitable model for analysis and train the officials towards the use of the model and the data.

Table 15 provides the details of the level of attainment of for different targeted Outputs for indicators (as per results framework) for Outcome 2. For reference, the baseline values of the indicators, the targets by EOP, level of achievement at the time of MTR, and achievements as per self-assessed in PIR for the terminal year (2022) are also provided in the table.

Table 15: Attainment of results: Outcome 2:

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³¹
Outcome 2: Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision-making on the basis of quality energy data	Capacity of stakeholders developed.	Not available at the present time.	To be completed within 12 months of project initiation.	Rating: Highly Satisfactory			MU
Output 2.1: National survey conducted on energy supply, consumption, and demand, disaggregated by sector, district and application	Completion of national energy survey.	None available at the present time.	To be completed within 9 months of project initiation and results validated by stakeholders by the end of Year 1.	Households Energy Consumption Survey (HECS) was completed in November 2017. Technical Report and Analytical Report drafted and validated by stakeholders. Sector Energy Consumption Survey (SECS) took place in November 2018 with subsequent data processing and report writing in the process of finalization	<ul style="list-style-type: none"> The National Energy Survey was completed in 2017 and the data gathered used to inform various processes. The HECS survey was completed in 2017. The data has been integrated into a number of statistical and policy initiatives including Agenda 2063, modelling energy demand, development of the NAMA for Lesotho amongst others. Engagements are at an advanced stage with the National University of Lesotho's Energy Research Centre (ERC) to conduct an additional 'Socio-economic baseline survey' amongst mini-grid communities in order to be able to assess impact going forward, this survey will leverage the national energy survey. 	<ul style="list-style-type: none"> Based on National Energy Survey, a Report on Household level energy survey was prepared and published Finalization of the sectoral survey reports is pending (please see the recommendation in the text after the Table) 	MS
Output 2.2: Energy database	Existence of energy	Not available at	To be completed	The households' energy database and	Energy data sets were migrated to the BOS	<ul style="list-style-type: none"> There is no activity by the 	U

³¹ Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³¹
and information system established for data collected under Output 2.1	database and information system.	the present time.	within 9 months of project initiation.	information system were established and approved in early 2018	(Bureau of Statistics, government of Lesotho) data portal for public consumption. Bos/gov./publications.htm	project for this Output <ul style="list-style-type: none"> At the time of TE, no data on the energy collected under Output 2.1 could be assessed at the BOS site. The website has data regarding energy consumption pattern at an aggregate level. The report 'Energy Statistics 2021' available at the website of BoS provides secondary data on production, consumption and imports/exports of energy commodities. 	
Output 2.3: Energy modelling software in place to analyse the data, model scenarios and produce information that will promote RE policies	Energy modelling software being utilized.	Not available at the present time.	To be completed within months of project initiation and approved by the Government by the end of year 1.	LEAP software was identified as the most suitable for Lesotho.	Energy modelling software suitable for Lesotho, Long-range Energy Alternatives Planning (LEAP) System, was identified in 2018 and it is being utilized by the BOS and DOE for data processing.	<ul style="list-style-type: none"> No energy modelling software has been developed/procured under the project There were road shows and exhibitions that were conducted by the Project to promote RET in the beneficiary districts. A promotional video was also produced. 	U
Output 2.4: All energy-related data and plans in the country harmonized with the proposed National Energy Policy and New Climate Change Strategy	Harmonized data available.	No harmonisation taking place at the present time.	To be completed within 18 months of project start.	Harmonization of data with existing National Energy Policy and Climate Change Strategy is ongoing	The UNDP and DoE management team have determined that the value of the harmonized data initiative was, at the end of the day, unclear. That the budget allocation for this task could not be justified against the objectives of this initiative – which management agreed were not sufficiently clear and practical. The funds would be better deployed to more clear and useful project ends. It was further noted that the preparation of the SE4ALL Country Action Agenda (CAA) has been the platform where the harmonization of data has been addressed.	<ul style="list-style-type: none"> As per PIR for the year 2022 this Output has been dropped after deliberations between the project team and UNDP. 	Unable to Assess (U/A)

One of the achievements under Component 2 of the project is the Household Energy Consumption Survey report. However, this report has not been used for any of the other activities carried out under the SE\$ALL project. Further, it is not clear how this report will be used for future energy planning. The project could not complete the analysis and publication of the report for other sectoral data collected during the National Energy Survey (carried out under Output 2.1). At the time of TE, finalization of the sectoral survey reports is pending. It is recommended that the task of data analysis and reporting be completed (please see the recommendation 4).

The achievement of results for Outcome 2 of the project is rated as MU (Moderately Unsatisfactory).

5.1.3 Attainment of results – Component 3 (Outcome 3)

Component 3 (Outcome 3) of the project was aimed at establishment of a village-based energy service delivery model for replication nationally. It was considered that successful demonstration of the delivery model would lead to its replication at other similar remote rural locations.

Table 16 provides the details of the level of attainment of the indicators (as per results framework) for Outcome 3. For reference, the baseline values of the indicators and those at the time of MTR and those self-assessed in PIR for the terminal year (2022) are also provided in the table.

Table 16: Attainment of results: Outcome 3:

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³²
Outcome 3: Successful establishment of a village-based energy service delivery model for replication nationally.	Availability of business model.	No such model available now.	To be completed within months of project start.	Rating: Moderately Satisfactory			
Output 3.1: Completed pre-feasibility studies for mini-grids in 20 village communities spanning 5 of Lesotho's 10 districts.	Pre-feasibility studies completed.	No such prefeasibility studies undertaken at the present time.	Completed within 12 months of project start.	Preliminary assessment of the 20 sites earmarked for mini-grids and energy centres was undertaken during Q4 of 2018 and the reports were validated by the stakeholders.	<ul style="list-style-type: none"> The pre-feasibility studies were completed in 2018 and provide useful guidance for the development of relevant and market reflective business models by the project developers. 	<ul style="list-style-type: none"> Pre-feasibility studies were carried out in a timely manner 	S
Output 3.2: Operational mini-grids in 10 village communities and 10 Energy Centres in the 5 identified districts, viz: Mophale's Hoek, Mokhotlong, Thaba-Tseka, Quthing and Quthing	Mini-grids and Energy centres operational.	None at the present time.	<p>All 60 village-based RET mini-grids and 20 Energy centres (project and immediate post-project) constructed and operational.</p> <p><i>Note: In line with dropping of Output 3.3, PIR 2022 mentions 10 mini-grids and 10 energy centres. However, there is no evidence to suggest dropping of Output 3.3</i></p>	<p>An Agreement by UNDP with UNCDF to be the Managing Agent of the FSS signed in Q1 2019. A Call for Proposal was published in May 2019 resulting in six companies selected to establish and operate 10 mini-grids and 10 energy centres</p>	<ul style="list-style-type: none"> Concession Agreements for 10 mini-grids signed between 1Power and the Ministry of Energy and Meteorology (MEM). Finance Agreements between UNCDF and 1Power have been signed for the 10 mini-grids and the initial upfront capital grant (\$60,000/mini-grid) has been disbursed. In addition, Cession Agreements were signed for each mini-grid Concession Agreement, ceding ownership of the concession to an SVP 'Sotho Mini-grid Portfolio SPV Pty'. The SPV was a requirement of 1Power financiers who required a ring-fenced investment vehicle to shield against other 1Power investments and business interests. Financing Agreements for 10 energy centres between UNCDF and the VEC project developers (Solar Lights x 7, KESI x 2, RSDA x 1) have been signed and an agreed upfront capital contribution (agreed based on the 	<ul style="list-style-type: none"> Concession Agreements for 10 mini-grids has been signed with 1 Power (1 Power is the concessioner for all the 10 mini-grids). However, they are yet to be operationalised. At the time of TE, the construction of the mini-grids was only beginning with erection of poles for distribution has not been initiated. No activity at the generation sites in all mini grids. For most of the mini-grids markings of the poles has been done (including erection of some pole). As per the concessioner, procurement of hardware for mini-grids has been partly done. Operations of the mini-grids is not expected during the remaining implementation period of the project. Amendments has been made in the grant agreements between UNCDF and 1 Power, for the mini-grids, wherein the balance grant for the mini-grids will be paid to 1 Power, if it achieves even a single electricity consumer connection for 5 mini-grids (out of total 10 mini-grids) 	MU

³² Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³²
					negative impacts of Covid-19 on VEC operations) of \$5,000/VEC was disbursed.	<ul style="list-style-type: none"> In case of Energy centres, financing agreements has been signed for 10 EC between UNCDF and the promoters of EC along with the payment of upfront financial support. The energy centres have been established; however, the operational performance of the ECs is almost non-existent. 	
Output 3.3³³: identify 50 additional sites for the construction of mini-grids and 10 additional sites for Energy Centres, and secure the interest of the private sector to develop these sites.			<i>Note: The project team has dropped Outcome 3.3. However, there is no formal evidence, record for this.</i>	Capitalization of EU-supported Facility for Rural Electrification <i>Note: Output 3.3 has not been relevant since FREA was never established</i>	Not covered in the PIR	This Output seems to have been dropped. However, there is no record or evidence in this regard nor that such action was approved by the PSC.	Unable to Assess (U/A)
Output 3.4: Capacity of national and district-level energy officials developed on best practices and opportunities for decentralized village energization models in off-grid areas	Existence of capacity development material.	None at the present time.	Capacity development completed within 24 months of project start.	In 2020, the project will sensitize and train national and district-level energy officials on best practices and opportunities for decentralized rural energization models in off-grid areas	<ul style="list-style-type: none"> Both the Investment Committee as well as the DoE, LEC and LEWA have all been party to the process of establishing concessions and developing the necessary legal agreements. In addition, the Financing agreements which govern Capacity has been further developed within the Investment Committee the members of which are routinely exposed to the process of not only evaluating and selecting proposals but the on-going legal and regulatory process around subsequent project implementation as well. The project developers of both the mini-grids and VECs have invested considerable time and resources in building awareness of products, services and technology in order to educate and mobilize the market within their concessions/project areas. Engagements between LEWA, DoE and UNDP continue to build perspective on the requirements from a regulatory and policy point of view to support mini-grids in Lesotho. The indicated Roadshow presented further opportunities to develop materials to share with communities within the VEC market areas. Using drone pictures, the UNDP communications consultant counter a total of 1,210 participants at the roadshows that were held within 6 Districts. 	<ul style="list-style-type: none"> No formal training could be organised for the national and district level energy officials. Training that was done was mainly to the beneficiary communities. 	U
Output 3.5: Financial Support	Evidence of private sector investment in	None at the present time.	\$ 5 million invested	An Agreement by UNDP	<ul style="list-style-type: none"> The VEC project developers are investing their own finances and in- 	<ul style="list-style-type: none"> The project has established the FSS being administered through UNCDF to provide 	MS

³³ Output 3.3 is not there in the results framework in the project document. However, it is covered in the Inception Report and the MTR report.

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³²
Scheme established to support private sector investment in village-based energization through mini-grind / Energy centres	in village-based energization through mini-grids/Energy centres.		by project end.	with UNCDF to be the Managing Agent of the FSS signed in Q1 2019. A Call for Proposal was published in May 2019 resulting in six companies selected to establish and operate 10 mini-grids and 10 energy centres	kind commitments into the development of the VECs. This includes transport costs, inventory, sales commissions, etc. <ul style="list-style-type: none"> The mini-grid company (1Power) through its SVP (Sotho Minigrid Portfolio) has successfully raised \$10 million (M150m) through two financiers – ElectriFI (and EU Development Finance Institution) and the Renewable Energy Performance Platform (REPP) a UK based DFI funded by the UK Government (Foreign and Commonwealth & Development Office). Finance is a combination of debt and equity finance. 	grants for mini-grids. The FSS also has provision to provide performance-based grants to the operators of the ECs. <ul style="list-style-type: none"> At the time of TE, the actual investment in the mini-grids is quite low, as the work to establish the mini-grids has just been initiated. However, the grants for establishment of the mini-grids are planned to be disbursed before the closure of the project (by amending the agreement between 1 Power and UNCDF. The amendment to the grant contract was completed in June 2022) The investments made by the developers of ECs is low and comprises a small inventory of a RE products (mainly solar PV lights), as most of the ECs are operating from existing shops in the villages. For such shops, RE products is one of the several items sold. USD 0.6 million has already been provided as grant for development of the mini-grids. Another USD 0.3 million is likely to be disbursed as grant for the mini-grids by the end of the project. Apart from the grants from the project, by the end of the project there will be some investment by the developer of the mini-grid. Apart from the mini-grids, there is some investment in the ECs. Based on the information/documents shared with the TE team, the payments made by 1 Power for procurement of capital goods, till end of May 2022 is USD 0.747 million (0.113 for backup generators+0.484 for Battery bank+0.043 for Power House+0.107 for PV panels). The investment made by 1 Power till May 2022 is approx., 20% of the CAPEX (being 20% advance paid to the suppliers). Thus, even after completion and operationalization of the mini-grids, the total investment in the minigrids would be about USD 3.5 million (including USD 0.9 million grant provided by the project) Apart from this some investment has also happened in the VECs and on other heads by 1 Power. Thus, on a rough basis the total investment mobilisation by the end of the project is expected to be of the order of USD 1.5 million (including about USD 0.6 million by the private sector. 	

Implementation the activities (except the pre-feasibility studies - Output 3.1) for achieving the Outputs of Outcome 3, got delayed, due to several reasons as detailed out in the next paragraph.

The COVID 19 pandemic led to national lockdowns and global restrictions and closures of international travel. This caused a major disruption in the global supply chains. Covid-19 restrictions and lockdowns

began in March 2020 and continued until August 2022. During the lockdown people had to work from home and for the most part all travel between the districts of the country was prohibited. This meant that the project sites were not accessible and given the fact that the project operates in the mountainous rural areas, all project activities come to a halt. Considerable time was lost in the process. The equipment for the mini grids and the energy centres were to be imported (largely from China). With the lockdowns and global restrictions, it was not possible to get any equipment out of China.

There was a delay in establishment of the FSS, as the project design had envisaged that FSS funds will be managed by LEWA, whereas during implementation of the project it was found that LEWA does not have the mandate for managing the funds. This led to the efforts to find out an agency within Lesotho, which can manage the FSS. However, this did not work out due to procedural issues, wherein a private sector bank is not allowed to manage the grant provided to the private sector beneficiaries. With this agreement was made with UNCDF to manage the FSS. An investment committee, comprising the members from DOE, UNDP and UNCDF was constituted to oversee the operations of the investment committee.

One of the other reasons for delay in implementation of activities for achieving Output 3.2, is the lack of prioritization and issues with the work planning (please see section 4.1). It is important to note that the call for proposal for establishing the mini-grids and energy centres could happen only in May 2019. Post receipt of bids to evaluation of bids and signing of the concession agreements for establishing the mini-grids and energy centres took about six months due to absence of an example to follow and due to issues relating to the tariff to be charged from the users of electricity, and the modalities for performance-based incentives for the energy centres. After this the progress has been a bit slow due to COVID 19 related restrictions. One Power has been granted the concession for establishment of all the 10 mini-grids.

All the 10 mini-grids will be using solar PV with battery, technology. The project design has envisaged the use of mini/micro hydro technology for some of the locations of mini-grids. The project has not been able to mainstream any other (other than solar PV) RE technology. It is recommended (please see recommendation 1) that future efforts towards promotion of mini-grids may ensure promotion of other RE technologies, particularly micro hydro. Given the situation of Lesotho, wherein there is a water stream almost everywhere in the mountain areas, specific efforts may be put to pre-identify the potential locations for mini/micro hydro based mini-grids and such potential hydro based mini-grids be promoted. Sustainability of mini-grids based on Hydro is higher (compared to solar PV) as it does not require periodic replacement of batteries.

Table 17, provides the details of the mini-grids and energy centres supported by the SE4ALL project.

Table 17: Location of Mini-Grids and Energy Centres Supported by SE4ALL project

District	Mini-grid location	Energy Centre location
Qacha's Nek	Lebakeng	Melikane
	Sehlabathebe	Matebeng
Mokhotlong	Tlhanyaku	Malingoaneng
	Matsoaing	Linakaneng
Quthing (1)	Sebapala	Majara/Kubung (Mphaki)
	Tosing (Dalewe)	Qhoali (Mphaki)
Hiratsuka	Sehonghong	Ha Mokoto (Litsoetse)
	Mashai	Linakeng
Mohale's Hoek	Ketane	Phamong
	Ribaneng	Koebunyane
Notes:		
(1) In case of Quthing district, the Energy Centre has been created at Mphaki (Mphaki has grid electricity), instead of at Majara/Kubung and at Qhoali. The two energy centres have been combined in one. This has been done by the developer of the energy centre, due to remoteness of the earlier proposed locations and lack of paying capacity of the households at those locations. These areas are also very difficult to reach.		

At the time of TE mission visit to some of the sites for the mini-grids was made. At some of the locations for the mini-grids, excavation and pole planting work was ongoing. Fencing at the site of the mini-grid was also observed in Mashai. Procurement of some of the capital equipment (presently laying at the stores of One Power at Maseru) for establishing the mini-grids has also been done. Table 18 provides the details regarding the status of implementation of the Mini-Grids supported by the project.

Table 18: Status of implementation of the Mini-Grids

Mini-grid Site	Stakeholder Engagement	Permitting	Engineering Design	Procurement	Site Preparation	Construction	Commissioning
Lebakeng	x	x	x				
Mashai	x	x	x				
Matsoaing	x		x				
Sebapala	x	x	x				
Ketane	x		x				
Sehong-hong	x	x	x				
Tlhanyaku	x		x				
Tosing	x	x	x				
Sehlabathebe	x		x				
Ribaneng	x						

Source: Progress report on Mini-grids dated 07 June 2022, Submitted by: One Power to UNCDF/UNDP/DoE

As can be seen from Table 18, there is a long way to go before the mini-grids can be expected to come on main stream and provide electricity to the consumers.

For the energy centres the sales performance is not good. Under the FSS of the project, ‘Capital Grants’ and ‘Performance Based Incentives’ were provided to the developers of the energy centres. The performance of the energy centres under the provision under the FSS was not good (please see Table 19 for details of the performance of the energy centres).

Table 19: Payments made to developers of Energy Centres under the FSS (Capital Grant and ‘Performance Based Grant-PBG’) scheme for the Energy Centres. (Figures in USD)

	Developer	District	Energy centre location	Capital Grant	PBG	Outstanding PBG
1	Solar Lights (Pty) Ltd	Mohale’s Hoek	Koebunyane	5,000		25,000
2	Solar Lights (Pty) Ltd	Mokhotlong	Malingoaneng	5,000		25,000
3	Solar Lights (Pty) Ltd	Mokhotlong	Linakaneng	5,000		25,000
4	Solar Lights (Pty) Ltd	Outhing	Majara	5,000		25,000
5	Solar Lights (Pty) Ltd	Thaba-Tseka	Linakeng	5,000		25,000
6	Solar Lights (Pty) Ltd	Outhing	Qhoali	5,000		25,000
7	Solar Lights (Pty) Ltd	Qacha’s Nek	Matebeng	5,000		25,000
8	KESI	Thaba-Tseka	Ha Mokoto (Litsoetse)	5,000		25,000
9	KESI	Qacha’s Nek	Melikane	5,000		25,000
10	RSDA	Mohale’s Hoek	Phamong	5,000	5,000	20,000
		Total		50,000	5,000	245,000

Source: Note dated 25 Jan 2022, prepared by the project team for Restructuring the Performance based grants for ‘Village Energy Centres’ and ‘Renewable Energy Mini grids’

Notes:

1. RSDA achieved the PBG for the first period and the corresponding PBG of USD 5,000 was paid.
2. KESI and Solar Lights have not hit the targets for the first disbursement of PBGs for any location.
3. Sales made by several of the energy centres are less than the initial capital grant of US\$ 5,000 disbursed to them.

As the provisions under the FSS for energy centres were not yielding the desired results, changes were made in the scheme. Under the new scheme, provision was made to provide 50% grant for all the sales of RE solutions sold from the energy centres. Even with this new scheme the situation did not improve significantly. The issue with this new scheme was that the sales to the customers was carried out at 50%

of the sales price and the time gap between the sales done and realisation of the balance 50% payments from UNCDF under the scheme. This time gap leads to increase in the requirement of the working capital by the developers. It creates a cash flow problem for them.

As can be seen there is an amount of about USD 0.245 million under the FSS for the energy centres which is yet to be utilised. Given the present state, it is unlikely that the grant funding meant for the Energy Centres would get utilized by the end of the project, unless adaptive measures are taken. It is recommended (please see recommendation 5 as well) that the unspent grant funds for the Energy Centres may be used in either of the following two ways;

- New locations for mini-grids (one or two) may be identified and concession granted with the disbursement of the grant funds (@USD 0.090 million per mini-grid as is being done presently)
- The balance grant funds for the Energy Centres may be utilized for helping the developers of the Energy Centres to procure the inventory of the RE/EE products. Fifty percent of the procurement price may be given as a grant at the time of the procurement of the RE/EE products

With the success story of mini-grids yet to be written and not that good performance of the energy centres, the **achievement of results for Outcome 3 of the project is rated as MS (Moderately Satisfactory).**

5.1.4 Attainment of results – Component 4 (Outcome 4)

The objective of this Component 4 (Outcome 4) of the project two folds. Firstly, it was to outreach the stakeholders for implementation of the project activities (e.g., stakeholder consultations for establishment of mini-grids). The second objective was to achieve the replication by disseminating the good results of the other components (particularly component 3 – establishment of mini-grids and energy centres). Considering the delays and lacking in the performance of the project towards creation of mini-grids and the performance of the energy centres, there were not much results and good practices to disseminate, during the implementation of the project. Some of the activities under this component were to be carried out towards the end of the project.

Table 20 provides the details of the level of attainment of the indicators (as per results framework) for Outcome 4. The values of the indicators at TE of the project are given in the Table. For reference, the baseline values of the indicators and those at the time of MTR and those self-assessed in PIR for the terminal year (2022) are also provided in the table.

Table 20: Attainment of results: Outcome 4:

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁴
Outcome 4: Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region.	Existence of outreach programme.	Lack of sufficient information to pursue programme.	Increased awareness among stakeholders in place to promote and develop RET-based mini-grids for village energy services.	Rating: Satisfactory	<ul style="list-style-type: none"> Following the launching of the outreach programme in 2019 followed by district awareness activities including road shows (to reach rural communities that don't have access to internet and/or social media) Project continued awareness raising at pilot project sites. Awareness raising at project sites was done jointly with developers of both mini-grids and VECs as they invested significant time and resources in mobilizing and informing communities about renewable energy products and services. This included extensive community demonstrations, 	<ul style="list-style-type: none"> The energy sector coordination Forum was held successfully. Some meetings with the communities at the pilot locations have been done. One Power started engaging the communities. Public gatherings started for mini-grids and energy centres in all the locations. Follow-up meetings were held with councillors to make sure they understand the project. 	

³⁴ Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁴
					branding of VECs, distribution of media materials etc. <ul style="list-style-type: none"> The project also used social media such as tweets on @UNDP Lesotho twitter account and Facebook. The tweets were based on various activities under the SE4ALL project during the months of September and October 2021. Following the successful Information and Demonstration event hosted in 2019 (referenced in PIR 2021) a Roadshow was organized by the UNDP/DoE management team and designed and delivered by the appointed Communications Consultant. The format used entertainment to attract foot-traffic to commercial centres (including drama and dance performances) and product demonstrations and information sharing. The Roadshow reached all 5 districts where the programme has a presence. Total attendance figures were over 1,200 people at these organized events. The design and content of the roadshows were informed by inputs by the VEC project developers to ensure alignment with market realities and relevance of strategies. In addition to these more formally organized events, the VEC project developers conduct their own marketing and information activities within their geographic focus areas. These include product demonstrations, active marketing by employees and sales agents as well as the distribution of marketing materials 		
Output 4.1: National Plan to implement outreach /promotional activities targeting both domestic and international investors.	Availability of national plan.	No such plan available.	Completed within 24 months of project initiation.	Communication Strategy formulated, but not officially approved yet (although some activities have been initiated). Other activities to be implemented according to progress with implementation of Call for Proposal investments and in accordance with the Communication Strategy	<ul style="list-style-type: none"> The national plan was developed and an outreach strategy put in place. As indicated, the plan was implemented for the most part. However, the balance of the communication consultant's contract is still to be delivered, the delays being brought about by the mobility constraints imposed by Covid-19. This will be completed in conjunction with the continued roll-out of the mini-grids and VECs to ensure maximum impact and benefit 	<ul style="list-style-type: none"> The idea of this Output was promotion of the idea of mini-grids and VECs amongst the potential international and national investors to attract investments for the mini-grids. There is no evidence to suggest formulation of a national plan for outreach/promotional activities targeting the domestic and international investors. The outreach and training that was done focussed on the beneficiary communities not necessarily the investors as envisaged. 	U
Output 4.2: Capacity development of concerned ministries/institutions to monitor and document project experience	Existence of capacity development material	No capacity development programme.	10 staff from Government/ other Institutions successfully trained by the end of project.		<ul style="list-style-type: none"> The delays in meaningful operations on the ground due to Covid-19 and other challenges limited the development of capacity development materials. With the project developers, particularly the VECs, now operational and accumulating sales and associated experiences, monthly reporting requirements have been instituted as well as 	<ul style="list-style-type: none"> A consultancy along with the Bureau of Statistics organised a training program for the officials of DoE on SPSS (statistical software package for data analysis). 	MU

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁴
					<p>monthly meetings. The data and experiences contained within these will be utilized to develop capacity development materials.</p> <ul style="list-style-type: none"> The UNDP management team and the DoE are undertaking site visits to beneficiary communities which will be used as part of the 'in-field' training opportunities as DoE staff become more familiar with project developers' requirements and market or customer realities. Understanding the market needs and capacities, understanding the Investment Committee activities and importantly, understanding project developers/private sector requirements in the off-grid space are critical learning experiences which will form the basis of developing training materials. The capacity building approach includes both the development of materials as well as capacity building experiences. In terms of the latter, the programme has facilitated a number of learning and capacity building experiences including the Investment Committee field trip to a number of mini-grid sites and VECs. In addition, the Steering Committee will undertake a field visit in July 2022 for similar capacity building impacts. In addition, UNDP, DoE and LEWA staff have undertaken a number of field visits to both mini-grid and VEC sites during the year under review in order to build capacity and experience in the operational requirements of supporting off-grid projects in Lesotho. The training of Bureau of Statistics and DoE staff on data analysis (SPSS) was designed to build capacity and expertise in statistical analysis which is necessary for managing and presenting data on the energy sector. 		
Output 4.3: Published material (including video) and informational meetings with stakeholders on project experiences/ best practices and lessons learned	Existence of published material.	Lack of information on best practices and lessons learned.	Completed within 3 months of project end.		<ul style="list-style-type: none"> A number of news articles and other media materials have been published As the programme moves deeper into the implementation phase, greater feedback through Monthly Progress Reports and M&E activities will generate the necessary insights into project developer experiences and form the basis of more impactful 'best practice' and 'lessons learned' centred publications. The Monthly Report templates have been developed and Project Developers are now submitting monthly reports as well as participating in monthly meetings. An overview of the Cornerstone Programme was published in a UNDP regional An article on IPower appeared in the Massachusetts Institute 	<ul style="list-style-type: none"> A presentation was made by the Project Officer by done regarding the activities and progress under the project at Energy Sector Coordination Forum meeting in November 2021 Considering the delays and lacking in the performance of the project towards creation of mini-grids and the performance of the energy centres, there are not many results and good practices to disseminate, during the implementation of the project. The workplan for the year 2022, has provided 	U

Outcome/Output	Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁴
					of Technology website https://news.mit.edu/2022/onep-over-minigrids-lesotho-0520	for hiring a consultant to capture project activities	
Output 4.4³⁵: Lessons learned and results dissemination workshops	Availability of workshops proceedings.	No such workshops held in the country.	Completed within 3 months of project completion.		<ul style="list-style-type: none"> Lessons learned sharing locally and regionally will be undertaken during the last year of implementation. Given the project extension granted, this will be undertaken in the 2nd Quarter of 2022. Following the recommendation of the SE4ALL midterm review, SE4ALL has revived the Energy Sector coordination Forum, and important and pivotal platform for energy sector coordination in Lesotho. During the reporting period, the project has provided financial support in hosting three meetings for the forum. The project both directly participates in the forums (providing presentations, etc.) as well as supporting project developers involvement. The mini-grid developer as well as a number of VEC developers have presented at the energy forum. 	<ul style="list-style-type: none"> Till the time of TE there is no visible action to achieve this Output. Activities under this Output are to be carried out towards the end of the projects planned implementation. Workplan for the year 2022 has included this activity to accomplish this Output 	S

There is hardly any activity either carried out or planned for Outcome 4 of the project. **The achievement of results for Outcome 4 of the project is rated as Unsatisfactory.**

5.1.5 Attainment of project goals, project objectives

Table 21 provides the details of the level of attainment of the indicators (as per results framework) for project objectives and the project goals. The values of achievement of targets for most of the indicators at TE of the project are not in agreement with PIR for the year 2022. The reasons for the variation in the assessment of achievement between the PIR and TE are also provided in this section of the report. For reference, the baseline values of the indicators and those at the time of MTR and those self-assessed in PIR for the terminal year (2022) are also provided in the table.

Table 21: Attainment of results: Project Objective: To catalyse investments in renewable based mini-grids and Energy Centres to reduce GHG emissions and contribute to the achievement of Lesotho's Vision 2020 and SE4All goals

Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁶
Emission reductions (in tCO ₂ over 20 Yr. timeline).	GHG emissions in the country have increased from 0.76 million tCO ₂ in 1994 to 1.1. million tCO ₂ in 2000 and expected to increase to 5.2 million tCO ₂ by 2030	<ul style="list-style-type: none"> Reduction of 213, 680 tonnes of CO₂ (project and immediate post project over the 20-year lifetime of the RET systems³⁷) Estimated cumulative indirect GHG emission reduction of 641, 040 tonnes of CO₂ by 2025 applying a replication factor of 3 	If all energy infrastructure investments will be carried out as planned and assuming the energy service is provided over the assumed lifetime of 15 years, the total cumulative energy saving would be 10,434 MWh with resulting lifetime GHG emission avoidance of 9,130 tCO ₂ .	<ul style="list-style-type: none"> The PIR has not reported regarding GHG emission reductions or performance against other indicators for monitoring the achievements 	<ul style="list-style-type: none"> Due to delay in establishment of the mini-grids and very low sales of RE solutions from the energy centres, the achievement of GHG emission reductions can at best be 3565 tons of CO₂e (please see details in Table 22 in section 5.1.6) 	<ul style="list-style-type: none"> MU

³⁵ Output 4.6 is not there in the results framework in the project document. However, this is covered in the text of the project document

³⁶ Rating Scale Use: Highly Satisfactory (HS): no shortcomings; Satisfactory (S): minor shortcomings; Moderately Satisfactory (MS); Moderately Unsatisfactory (MU): significant shortcomings; Unsatisfactory (U): major problems; Highly Unsatisfactory (HU): severe problems; Not Applicable (N/A); Unable to Assess (U/A)

³⁷ In the project document computations include mini-grid and energy centres which would get implemented (using the funds and financing developed under the project) post implementation of the pilots under the projects. MTR mentions 3, 473 tonnes CO₂. MTR considered only the pilots to be established under the project

Indicator	Baseline	EOP Target	Status at MTR	Status as per PIR 2022	Status at TE	TE Rating ³⁶
			Rating: Moderately Satisfactory	of project objectives		
Energy produced (MWh) by RETs.	The present contribution of RETs in the provision of off-grid rural energy services in negligible	RET based electricity generation of 211 MWh/Year		<ul style="list-style-type: none"> The PIR reports the progress made towards establishment of energy centres and the mini-grids. 	<ul style="list-style-type: none"> There is no generation of electricity using RETs. Due to delay in establishment of mini-grids. Depending upon the performance of the mini-grids there will be generation of electricity using RETs. in the future when the mini grids are completed 	Unable to Assess (U/A)
Number of jobs created	No investment taking place in the provision in rural energy services through mini-grids electricity generation	Total of 1, 125 jobs created ³⁸			<ul style="list-style-type: none"> As no mini-grids were completed and construction was only beginning there were no discernible jobs that are created as yet. As per the project team, the concessioner for the mini-grid has 59 full time staff and 293 casual workers. Jobs have been created during construction. Once the mini-grids are established and operationalised there will be creation of permanent jobs. It will depend on the performance of the mini-grids, which cannot be predicted at this state. 	Unable to Assess (U/A)
Number of beneficiary households in rural areas		3, 000 beneficiary households in rural areas ³⁹ .			<ul style="list-style-type: none"> As no mini-grids could be operationalised during the implementation of the project, there are no discernible beneficiaries of mini-grids. The beneficiaries of the energy centres are very few due to poor sales from the energy centres. Post implementation of the mini-grids the number of beneficiaries would depend upon the number of households opting for electricity supply (depending upon the tariff and affordability) and the performance of the mini-grid. These parameters cannot be assessed at TE as the connections have not yet been done. 	Unable to Assess (U/A)

Owing to the delay in establishment of the mini-grids and poor sales of the RE solutions from the energy centre, the performance of the project against the indicators is not good. The **Achievement of Project Objectives is Rated as Moderately Unsatisfactory (MS)**

5.1.6 Global environmental benefits

The global environmental benefits of the project are the reduction in the emission of greenhouse gases (GHG) to help the global community address climate change. The GHG emission reduction due to use of decentralised generation of electricity is to be achieved by using the RE sources for generation of

³⁸ MTR mentions 375. Once again, the difference seems to be due to inclusion of jobs created most implementation of the GEF project in the project document.

³⁹ The MTR mentions 1,000. The difference could be due to inclusion of additional beneficiaries due to creation of mini-grid and energy centres after implementation of the GEF project

electricity. As was mentioned earlier (please see section 3.1), the targeted GHG emission reduction for the project is over ambitious. There are issues with the assumptions and computations of GHG emissions given in the project document.

Based on the situation and consideration at the time of project design and at the time of TE, the GHG emission reductions due to the SE4ALL project as projected at the time of project design and as assessed at TE is given in Table 22.

Table 22: Targeted and Actual GHG Emission Reductions (figures in tons CO2e)

	Item	Target (project design)		Actual at TE (Scenario 1)		Actual at TE (Scenario 2)		Notes
		Nos.	Emission Reduction	Nos.	Emission Reduction	Nos.	Emission Reduction	
a	Direct Emission reductions over lifetime of 20 years of the equipment due to Mini-grids established with the grant support from the project	10	3565	10	0	10	3565	(1)
b	Emission reductions over lifetime of 20 years of the equipment due to Mini-grids which will become operational immediately post-project	50	185000	0	0	0	0	(2)
c	Emission reductions due to sale of RE products sold from Energy Centres established (each energy centre serving 5 villages – 400 households) with the grant from the project over the lifetime of 5 years of solar lanterns	10	9000	10	0	0	0	(3)
d	Emission reductions due to sale of RE products sold from Energy Centres established (each energy centre serving 5 villages – 400 households) immediately after the project over the lifetime of 5 years of solar lanterns	10	9000	0	0	0	0	(4)
e	Emission reductions due to Improved cookstoves over its five years lifetime		7115		0	0	0	(5)
	Total		213680		0		3565	
<p>Notes:</p> <p>As per GEF definition for direct GHG emission reductions, only the reduction as serial number a. qualifies for direct GHG emission reductions. However, the project design has considered all the items (from a to e above) as direct GHG emission reductions. None of the mini-grids could achieve actual investment for the operations of mini-grids.</p> <p>(1) Project design has considered creation of RE capacity of 74 MW due to mini-grids during project implementation. This capacity has been worked out considering the demand at the locations of the mini-grids. The baseline considered is generation of electricity using DG sets with an emission factor of 0.875 tCO2/MWh. During project implementation, no actual generation capacity for the mini-grids could be achieved. However, some investment has been made (by way of grants provided under the FSS). The PV capacity is likely to go on stream, however the actual performance (based on demand and technical performance of the facility) is not established. The estimates regarding the likely direct GHG emissions have been worked under two Scenarios. The first Scenario goes strictly by the GEF definition of direct GHG emission reduction and thus considers no emission reductions. The second Scenario considers that the PV based mini-grids will get created and the demand will be as per projections made in the project design (in spite of the tariff of 5 Maloti/kWh). The concession agreements have provided for much higher capacities for the mini-grids, however for computing the emission reductions the generation of electricity project in the project design has been considered.</p> <p>(2) The project design has considered that 50 mini-grids (each with 100 KW capacity) will become operational immediately post-project, under the assumption that FREA will be capitalised during the project. FREA has not got capitalised during the implementation timelines of the project. Further, operationalisation of 50 mini-grids, each with a capacity of 100 KW is an unseasonal assumption. Thus, no emission reduction due to this head has been considered while computing GHG emissions due to the project.</p> <p>(3) Although, 10 energy centres have been created, the emission reduction's due to sale/use of RE solutions will be negligible. This is due to very poor sale of RE appliances at the energy centres.</p> <p>(4) Establishment of additional energy centres immediately after the project, is not likely. Thus, there will be no emission reductions</p> <p>(5) There have been almost zero sales of improved cookstoves from the energy centres, which were supported under the project. Thus, there will be no emission reductions.</p>								

As can be seen the achievement of the global environment benefits due to the project is significantly inadequate, when compared to the targets. One of the reasons of this is the unrealistic assumptions leading to over estimates at the time of project design.

5.2 Relevance

The main questions for terminal evaluation are; (please see Annex B)

- To what extent is the activity suited to local and national development priorities and organizational policies, including changes over time?
- To what extent is the project in line with UNDP Operational Programs or the strategic priorities under which the project has been funded?

The SE4ALL project and the activities planned within the project are highly relevant to the development needs of Lesotho. As mentioned in the project document, it is cost prohibitive to extend the electricity distribution grid of the country to some of the yet to be electrified villages in the mountains of the country. Also, ever increasing demand for electricity is leading to the need to import more fossil-fuel based electricity from the neighbouring countries.

Lesotho is capping electricity and fossil fuel prices, which amounts to very substantial indirect government subsidies to energy prices. There is a significant cross-subsidy for electricity in Lesotho and the average retail price of electricity in Lesotho is kept below the long-term marginal cost of production.

Considering that the project addresses the issue of availability of sustainable energy to all by way of onsite generation using RE source, at the remote unelectrified mountainous rural areas, the project leads to savings in the foreign exchange due to lesser imports of electricity (or fossil fuel for onsite power generation). On the other hand, it addresses the issue of pressure on the economy due to the subsidies provided to the energy sector. The project is in line with the UNDP operational programs for Lesotho. This is explained further in the following paragraphs.

Lesotho is a party to the UNFCCC. It has development goals and access to electricity is one of the priority areas for the government. As per a report⁴⁰ published by UNDP, in 2018, the Government of Lesotho published a revised electrification plan, named the Lesotho Electrification Master Plan (EMP). The primary aim of the plan was to improve electricity access in the country. The EMP found that grid extension would continue to play an important role in achieving the access target as it is the least-cost supply solution for roughly 64% of the total population, while off-grid solutions (primarily mini-grids) would be least-cost for 36% of Lesotho's population. A portion of the EMP therefore focuses on grid extension, but there is also a large component which focuses on the establishment of mini-grids.

The EMP also includes an off-grid development plan focused primarily on rural electrification, particularly those areas of Lesotho that are not easily reached by the national power grid. In terms of the annual electrification budget committed by the Government, 80% is allocated to grid electrification while the remaining 20% will be allocated to off-grid electrification. Based on this budget, the Government estimated in its Off-Grid Master Plan Report that it would be able to connect about 10,600 households to off-grid energy solutions (mainly solar lanterns and small SHS solutions) and 300 households to mini-grids each year.

The reports (please see footnote 40) also point out that the Government of Lesotho has decided to assess the effectiveness of the SE4ALL project to promote uptake of off-grid technologies before proceeding with further off-grid activities under the EMP programme, making the SE4ALL project very relevant.

In this regard it is important to note that presently in Lesotho, there is an ongoing project (supported by the World Bank) to assess the unelectrified areas of the country (please see Table 10 for details).

⁴⁰ Lesotho: Energy and the poor Unpacking the investment case for clean energy – 2020. Report published by UNDP and UNCDF under Making Access Possible (MAP), initiative. MAP is a multi-country initiative to support financial inclusion through a process of evidence-based country diagnostic and stakeholder dialogue.

UNDP country program for Lesotho, for the period 2019-23, includes support to the implementation of SE4ALL initiative. UNDP country program for the period 2019-2023 includes following outputs, which related to the SE4ALL project.

- Low-emission and climate-resilient objectives addressed in national, subnational, and sectoral development plans and policies to promote economic diversification and green growth
- Capacities of national government and private sector strengthened to enable universal access to clean, affordable, and sustainable energy

The UNDAF program includes, ‘proportion of population living in households with access to basic services: (a) energy; and (b) financial services. The project is also in accordance with UNDP Lesotho Country Program Document (2019-2023).

The relevance of the SE4All project has been rated⁴¹ as Relevant.

5.3 Effectiveness & Efficiency

The main questions for terminal evaluation are; (please see Annex B)

- To what extent the objectives, expected outcomes and outputs have been achieved?
- To what extent the results have been delivered with the least costly resources possible?
- What are the positive and negative, foreseen, and unforeseen changes to and effects produced by a development intervention?

The goal of the SE4ALL project was the reduction of the GHG emissions from the energy sector in Lesotho by increasing the contribution of RE in the generation of electricity, while on the other hand the project was to make available electricity to the unconnected villages in the mountainous regions of the country. The goals were to be achieved by establishing RE based mini-grids and provision of RE home solutions through the energy centres.

When it comes to the establishment of the mini-grids, the SE4ALL project has fallen short of expected performance as no mini-grid could be made operational during the project implementation period. However, the mini-grids whose establishment was supported by the project, are likely to become operational after the implementation timelines of the project given the momentum on the ground during this TE period.

Although, the energy centres got established under the project, the sales of RE home solutions out of these energy centres has been very low (random sales of a couple of lamps from time to time), due to the issues relating to affordability by the households and small market size. Thus, there is little achievement of GHG emission reductions, during the implementation of the project, due to sales of RE home solutions from the energy centres.

As the demonstration mini-grids could not be completed by the end of the SE4ALL project, GHG emission reductions due to generation of RE based electricity, within the project implementation timeline for SE4ALL project is minimal. However, depending upon the performance of the mini-grids (which also depends upon buying of electricity by the consumers) the achievement of GHG emission reductions beyond the project implementation timelines is expected.

Beyond the implementation timelines of the project, there may be some replication (depending upon the performance) of mini-grids at other locations. However, as the mini-grids did not get established during the implementation timelines of the project, such replications cannot be attributed to the successful demonstration of mini-grids under the SE4ALL project.

⁴¹ Ratings for Relevance; Relevant (R), Not Relevant (NR)

Despite many short comings in the achievements, it can be articulated that the SE4ALL project has successfully introduced the concept and done the ground work (e.g., regulations, concession agreements for private sector participation, increased capacity of the government officials etc.) for establishment of mini-grids in Lesotho. This paves the way for smooth implementation of the ongoing (e.g., World Bank supported project for energy access)

The Effectiveness of the project is rated as Moderately Satisfactory.

The contribution of the SE4ALL project in terms of direct GHG emission reductions within the lifetime of the interventions, in the best-case scenario is 3,565 tons of CO₂ equivalent (please see Table 22 for details). Depending upon the performance of the mini-grids, there would be additional mitigation in the emission of GHG. The project document has mentioned the cost of GHG mitigation at the time of project design as USD 16 per of CO₂ e. (213,680 tonnes of CO₂ abated during the project/immediate post-project period, with the GEF support of USD 3.5 million). With the significantly lower achievement in the GHG emission reductions, the cost of GHG emission reductions has increased exponentially. For some of the components of the project (e.g., Component 4) the achievement of results is Unsatisfactory, but the GEF funds has got utilised. The, **efficiency of the project is rated as Unsatisfactory.**

5.4 Country ownership

The main questions for terminal evaluation are; (please see Annex B)

- Was the project concept in line with development priorities and plans of Lesotho?
- Were the relevant country representatives from government and civil society involved in project implementation, including as part of the project steering committee?
- Was an inter-governmental committee given responsibility to liaise with the project team, recognizing that more than one ministry should be involved?
- Have the government(s), enacted legislation, and/or developed policies and regulations in line with the project's objectives?

As mentioned in section 5.2, the SE4ALL project was in line with the development priorities and plans of the government. Particularly, the project targeted to address the development priority to make availability of energy for the development needs of the households in the remote rural mountainous areas of the country, which are not connected to the electricity distribution grid of the country.

The project design and the implementations were carried out in close coordination and consultation with different government agencies. Several government agencies and institutions were involved for the execution of the project. The representative of the district councils of the districts where the pilots of mini-grids and energy centres were planned were members of the project board.

The project was implemented under NIP with DOE as the implementing partner. The project board had representative from all the concerned ministries/departments. The country also approved the regulations for the mini-grids. There was active participation of important government officials in the 'investment committee' for management of FSS. There was country ownership for the project.

5.5 Mainstreaming

The main questions for terminal evaluation are; (please see Annex B)

- How is the project successfully mainstreaming other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment?
- Whether it is possible to identify and define positive or negative effects of the project on local populations (e.g., income generation/job creation, improved natural resource management arrangements with local groups, improvement in policy frameworks for resource allocation and distribution, regeneration of natural resources for long term sustainability).

- If the project objectives conform to agreed priorities in the UNDP country programme document (CPD) and country programme action plan (CPAP) / One Strategic Plan (OSP).
- Whether there is evidence that the project outcomes have contributed to better preparations to cope with disasters.
- Whether gender issues have been taken into account in project design and implementation and in what way has the project contributed to greater consideration of gender aspects, (i.e., project team composition, gender-related aspects of pollution impacts, stakeholder outreach to women's groups, etc.)

At the level of UNDP, although there is no direct contribution of this project towards mainstreaming its other priority areas of work like poverty alleviation, improved governance, prevention and recovery from disasters, gender equality, it has no negative impact on any of the other priority areas of the UNDP.

There are no gender segregated indicators in the results framework of the project. The project design has realised the importance of gender mainstreaming in the energy sector. Accordingly, the project design had made provisions to seek achievement of gender equality through the empowerment of women.

The project team has taken due care to take care of the gender specific issues related to the project. A gender consultant was engaged by the SE4ALL project to mainstream gender into the Electrification Master Plan to sensitize and identify gender gap where mini-grids and energy centres were to be executed. Officers from the Department of Energy (DoE) offered technical support to the consultant it carried out the survey and the sensitization mission to the identified project sites in the five project districts. This led to the development of the 'Gender Mainstreaming Strategy for the Energy Sector 2020-24'.

As was mentioned in the Section 5.2, UNDP country program for Lesotho, for the period 2019-23, includes support to the implementation of SE4ALL initiative. UNDP country program for the period 2019-2023 includes following outputs, which related to the SE4ALL project.

- Low-emission and climate-resilient objectives addressed in national, subnational, and sectoral development plans and policies to promote economic diversification and green growth
- Capacities of national government and private sector strengthened to enable universal access to clean, affordable, and sustainable energy

5.6 Sustainability

The main questions for terminal evaluation are; (please see Annex B)

- Are there financial risks that may jeopardize the sustainability of project outcomes?
- What is the likelihood of financial and economic resources not being available once GEF grant assistance ends?
- Are there social or political risks that may threaten the sustainability of project outcomes?
- What is the risk for instance that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained?
- Do the various key stakeholders see that it is in their interest that project benefits continue to flow?
- Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?
- Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits?
- Are requisite systems for accountability and transparency, and required technical knowhow, in place?
- Are there ongoing activities that may pose an environmental threat to the sustainability of project outcomes?

The project has introduced the concept of RE based mini-grids in the country, however, the concept could not be demonstrated within the implementation timelines of the project, due to delay in establishing the mini-grids. In case of energy centres, the success of the concept did not happen due to lack of sale of RE based home solutions. The lack of sales was in turn due to low market size and low purchasing power by the households. Thus, the project has not been able to successfully demonstrate establishment of Energy Centres and mini-grids as solutions to provide energy accesses to electricity in the remote mountainous rural areas of the country. Some of the success story of the project includes;

- establishment of the regulations for mini-grids in the country
- introduction of the concept of generation of electricity in private sector
- formalisation of the process of agreements for the concessions for electricity
- capacity development of the government officials

Although, there are not many results of the project, to sustain beyond the GEF project implementation, for whatever results have been achieved no financial and economic resources would be needed for sustaining them.

For the mini-grids, the investment is being done/was done by the private sector based on the conviction that there will be adequate return on the investment. The actual realisation of the returns on investments will depend upon the buying of electricity by the consumers (based on the tariff and the affordability) and technical performance of the mini-grids. For the energy centres, there are no results and success stories, thus there is nothing to sustain beyond the implementation of the GEF project.

The results and impacts of the demonstration projects by way of replication cannot be assessed at TE, as the results of the mini-grids are yet to be realised.

The Social and Environmental screening of the project, done at the PPG stage did not identify any social or environmental risks. A review of the PIRs and MTR and the assessment done at the time of TE (through discussions with the stakeholders) did not identify any social or environmental risk for sustainability of the results of the project. From the social and political view point, there is not much threat to the sustainability of the results and outcomes of the project. There are practically no negative environmental impacts of the project. Thus, from the viewpoint of institutional framework and environmental sustainability, the outcomes of the project are likely to sustain.

There is a high level of ownership by the institutional and government stakeholders towards decentralised RE based energy solutions, which is evident by the consistent efforts in Lesotho towards providing such solutions in the areas, where extension of the electricity grid is difficult. No risk is envisaged towards sustainability of the results of the project, due to lack of interest from the key stakeholders.

The legal frameworks, policies, and governance structures and processes for the decentralised solutions has been introduced by the GEF project. There are no risks to the results of the projects from these viewpoints.

The outcomes and results of the SE4ALL project are Likely to Sustain. Sustainability of the few achieved results of the project are rated⁴² as likely.

5.7 Impact

The main questions for terminal evaluation are; (please see Annex B)

- Whether, the project has demonstrated verifiable improvements in ecological status?
- Whether, the project has demonstrated verifiable reductions in stress on ecological systems through specified process indicators, that progress is being made towards achievement of stress reduction and/or ecological improvement?

In terms of GEF objectives of global environmental benefits, the most direct impact of the project was the expectations regarding reduction in GHG emissions. However, as the mini-grids are yet to become operational and negligible sale of RE based home energy solutions, at the time of TE there are no

⁴² Ratings for Sustainability: Likely (L): negligible risks to sustainability; Moderately Likely (ML): moderate risks; Moderately Unlikely (MU); significant risks; Unlikely (U): severe risks

impacts due to reduction in the emission of GHG. Depending on the performance of the mini-grids beyond the implementation timelines of the project, there will be reduction in the emission of GHG.

The expected positive impacts of the project include social and economic benefits in the villages (health and income-generating activities) as well as improved natural resource management, through provision of modern energy services to promote better quality of life and provide opportunities for income-generating activities in the rural areas. These expected positive impacts are yet to be realised. Once again, the achievement of these impacts will depend upon the performance of the mini-grids being established.

One of the positive impacts of the project is creation of the procedure, regulations and capacity amongst the government stakeholders to execute electricity generation projects by the private sector players.

The positive impacts of the project are rated⁴³ as marginal.

⁴³ Rating for Impacts: Significant (S); Minimal (M); Negligible (N)

6. CONCLUSIONS, RECOMMENDATIONS & LESSONS

The main questions for terminal evaluation are; (please see Annex B)

- Did the project provide cost-effective solutions in order to address barriers?
- Are these solutions provided in an efficient way?
- What are the best and worst practices in addressing issues relating to relevance, performance and success?
- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives

The objective of the project was creation of favourable legal, regulatory and market environment and building institutional, administrative, and technical capacities to promote rural electrification through isolated renewable energy-based mini-grids and to provide RE based energy solutions to the communities through Energy Centres. The global environmental objective of the project was reduction in the emission of GHGs, through generation of electricity using renewable sources of energy. The idea of the project was to lay the foundations of a successful, post-project, rural energization initiative. The objectives of the project were to be achieved through achievement of the following four targeted Outcomes of the project.

Outcome 1: SE4All cornerstone policies and strategies facilitating (increased) investment in RET deployment, particularly isolated mini-grids.

Outcome 2: Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision- making on the basis of quality energy data

Outcome 3: Successful establishment of a village-based energy service delivery model for replication nationally.

Outcome 4: Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region.

The implementation of the project started in a timely manner with the inception meeting of the project happening within three months of the project start date. However, actual implementation of the project (particularly component 3) suffered due to a number of reasons including failure to follow sequential activities (e.g., the initiatives for implementation of the pilot mini-grids were to start right in the first year of the project implementation) as was envisaged in the project design as well as unforeseen risks such as Covid-19 and challenges with setting up the FSS.

The way project was designed, the activities for achieving different targeted outcomes were required to be carried out sequentially, as different outcomes were to support each other. For example, Outcome 1 and Outcome 2 were to support achievement of Outcome 3. Dissemination of results of Outcome 1, Outcome 2 and Outcome 3 were to be carried out under Outcome 4 to achieve the larger objective of replication, thereby leading to the achievement of the objectives of the project. In the present case, non-achievement or partial achievement or delayed achievement of one of the Outcome/Output, has impacted the achievement of the other Outcomes/Outputs of the project.

One of the remarkable achievements of the project under Outcome 1, is the approval of the regulations for the mini-grids. The other two documents produced under Outcome 1 (namely the Investment Prospects and Country Action Agenda) could not obtain the approval from the government. It is important to note that as per the project design, the idea of the investment prospects was to produce a document, which makes available a catalogue of investment opportunities in the area of RE based mini-grids and other RE/EE energy solutions to the prospective private sector investors. The project did produce the investment prospects compiling the proposals of investments by the private investors. Thus, the investment prospects produced under the project lacked the objectivity.

In the absence of appreciable results during the implementation timelines of the project, there were no best practices and results to disseminate under Component 4 of the project. Thus, no major dissemination activity under Component 4 aimed at replications took place.

Post implementation of the project, the results of the project will depend on the performance of the mini-grids, whose implementation at the time of TE was still at preliminary stage. The performance of the mini-grids and hence the results of the project (post implementation) will depend on the demand for electricity by the consumers (there may be issues regarding actual consumption of electricity by the consumers, given the tariff and affordability issues) and technical performance of the mini-grids. It is important to note that the proposed tariff to be charged is purely based on the actual consumption, and there are no charges for the extent of connected/contracted load.

6.1 Corrective actions for design, implementation, monitoring, and evaluation of project

#	Recommendation	Rational and Description	Timing/Dates for Action
1	Future efforts towards promotion of mini-grids may ensure promotion of other RE technologies (other than solar PV).	<p>All the mini-grid pilots under the project are based on solar PV. The project has not been able to mainstream any other RE technology (e.g., mini-hydro, biomass) for establishment of mini-grids.</p> <p>Given the situation of Lesotho, wherein there is a water stream almost everywhere in the mountain areas, specific efforts may be put to pre-identify the potential locations for mini/micro hydro based mini-grids and such potential hydro based mini-grids be promoted.</p> <p>Sustainability of mini-grids based on Hydro is higher (compared to solar PV) as it does not require periodic replacement of batteries.</p>	At the time of design of other similar projects in the country
2	It is recommended that the project document for all future GEF projects include all the Mandatory Annexes (including a multi-year workplan).	<p>One of the reasons for under performance of the project is delay in the establishment of the pilot projects for mini-grids. This has happened partly due to oversight regarding the need to prioritise the sequential activities leading to establishment of the mini-grids. This has happened partially due to non-preparation of the annual workplans for the initial two years of project implementation.</p> <p>The reason for missing out on preparation of the annual workplans could be the absence of multi-year workplan in the project document. The absence of a multi-year workplan is one of the reasons for missing timely action towards the implementation of many important activities (including the pilot projects for mini-grids and Energy Centres).</p> <p>The template of the Project Document for GEF 5, mentions 'multi-year workplan as one of the mandatory Annexes (normally Annex 3 in the Project Documents) to the Project Document. The project document for the present GEF project had missed on this.</p>	At the time of design of other GEF projects in the country
3	It is recommended that for the GEF projects in the focal area of climate change mitigation, the computation of global environmental benefits should be done keeping in mind the	Computations of direct GHG emission reduction for all the GEF projects in the focal area of climate change should be done as per the GEF definition of 'Direct GHG Emission Reductions'. This will avoid non-achievement of the core-indicators at the end of the project	At the time of design of other GEF projects in the focal areas of 'climate change

#	Recommendation	Rational and Description	Timing/Dates for Action
	GEF methodology and in a conservative manner.		mitigation' in the country

6.2 Actions to follow up or reinforce initial benefits from project

#	Recommendation	Rational and Description	Timing/Dates for Action
4	During the project implementation, Bureau of Statistics, Lesotho. Collected data during a survey to establish sectoral energy consumption pattern. The report on the energy consumption by the households has already been published. It is recommended that during the remaining project implementation period the reports for the sectors for which data is available may be published.	The project supported the collection of data for the sectoral study of energy consumption by different sectors. The data collection was carried out by the Bureau of Statistics, Lesotho. For some of the sectors, there are still some data gaps. The report on the energy consumption by the households has already been published. It is recommended that during the remaining project implementation period the reports for the sectors for which data is available may be published.	Immediate, during rest of the project implementation time
5	There are unspent funds are of the order of USD 225,000. It is recommended that this unspent grant funds for the Energy Centres may be used in either of the following two ways <ul style="list-style-type: none"> • New locations for mini-grids (one or two) may be identified and concession granted with the disbursement of the grant funds (@USD 90,000 per mini-grid as is being done presently). The project has already accumulated practical knowledge regarding how to approach the mini-grids establishment in these rural communities and therefore this is likely to be achieved faster than when it was done for the first time. • The balance grant funds for the Energy Centres may be utilized for helping the concessioners of the Energy Centres to procure the inventory of the RE/EE products. Fifty percent of the procurement price may be given as a grant at the time of the procurement of the RE/EE products 	Given the present situation, it is unlikely that the grant funding meant for the Energy Centres would get utilized by the end of the project, unless adaptive measures are taken.	Immediate, during rest of the project implementation time
6	With the regulations for mini-grids already in place, the future development projects may focus on the procedures to mainstream private sector investments for creation of mini-grids. As a further step towards this, the government and the regulators may explore the possibilities of going for Tariff based bidding process to allocate concessions to the private sector.	Interactions with the communities at the time of TE, indicated that there is a high level of desire in the communities to get electricity. This can help to exponentially replicate creation of mini-grids in rest of the unelectrified villages.	At the time of design of other similar projects in the country

#	Recommendation	Rational and Description	Timing/Dates for Action
7	It is recommended that the project be provided a no cost extension of six months in its implementation timelines.	Implementation of the project suffered due to Covid 19. The impact has been particularly severe for establishment of the mini-grids. It is expected that an extension would lead to establishment of the mini-grids within the implementation timelines of the project, thereby enhancing the achievements and results of the project as the mini-grids would get established and operational.	Immediate

6.3 Proposals for future directions underlining main objectives

#	Recommendation	Rational and Description	Timing/Dates for Action
8	It is recommended that future design of the project of this nature consider a mobile model of the VEC, wherein a bigger EC is established at selected locations and the remote areas are served by mobile vans.	Given the remoteness of VEC locations, the market size is quite limited. On top of it the cost of serving the markets is quite high.	At the time of design of other similar projects in the country
9	It is recommended that the regulations provide for different tariff determination methods for the electricity based on the time of the day concept. Charging different tariffs, based on the time of the day concept would be possible with the use of smart meters. The availability of electricity at a lesser price during the day would lead to the development of cottage-level enterprises and micro businesses. Such a provision would also ensure an increase in the load for the concessioner thereby improving the commercial viability of the operations	The cost of delivery of electricity during day time and during the night time is different (particularly for the Solar PV). This is largely because the delivery of electricity during the daytime doesn't require batteries (or minimal batteries).	As soon as possible

6.4 Best/worst practices addressing issues relating to relevance, performance, & success

#	Recommendation	Rational and Description	Timing/Dates for Action
10	It is recommended that future projects of this nature may provide the grant to the concessioners at the time of procurement of the energy appliances.	One of the lessons learned is that the new scheme (of 50% grant on the sales price of the appliance, instead of performance-based incentives to concessioners) for the grants for the Energy Centres has increased the working capital requirements (due to time lag from the time of sale of energy appliance and realization of the 50% of the balance sales realization as a grant). As it is not easy for the concessioners to increase the availability of funds, the stocks at the Energy Centres don't get replenished. This in turn leads to a decrease in sales.	At the time of design of other GEF projects in the country
11	It is recommended that an amendment be carried out in the regulations to do away with the restriction to provide electricity connection to the consumers outside the geographical area of the concession.	The provisions in the regulations doesn't allow a concessioner to offer connection to a household on the border (but outside the concession area).	As soon as possible

#	Recommendation	Rational and Description	Timing/Dates for Action
	Natural expansion of the mini-grid to nearby areas over the period of time may be allowed, as long as the expansion is not impacting the delivery of services within the assigned concession area		

ANNEX A: TERMS OF REFERENCE

1. INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the full-sized project titled Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress (PIMS 5367) implemented through the Ministry of Energy and Meteorology (MEM). The project started on the 13th October 2016 and is in its 6th year of implementation. The TE process must follow the guidance outlined in the document 'Guidance for Conducting Terminal Evaluations of UNDP Supported, GEF-Financed Projects' ([hyperlink](#)).

2. PROJECT BACKGROUND AND CONTEXT

The electrification backlog and the lack of access to modern energy services is particularly marked in rural Lesotho. Indeed, 82% of the country's rural population remains un-electrified and this status will remain so for the foreseeable future, given the low population densities and distributed character of settlement patterns. This situation is untenable given the developmental importance of access to modern energy services as well as the Government of Lesotho and, indeed, international commitment to universal access. Universal Access, amongst other energy outcomes (including energy efficiency and renewable energy), is an objective that has been championed by the UN's SE4All, a key organization in the commitment to universal access to sustainable energy. The SE4ALL's mission to empower leaders and governments to ensure universal access to sustainable energy resources underpins the mutual commitment between the Government of Lesotho, represented by the Ministry of Energy and Meteorology, and the United Nations Development Programme to enhancing access to modern energy services in rural Lesotho.

The Sustainable Energy for All project titled "Development of Cornerstone Public Policies and Institutional Capacities to Accelerate Sustainable Energy for All (SE4All) Progress is an initiative co-funded by UNDP/GEF as well as the Government of Lesotho to the direct project value of US\$ 3.9 million (secured principally from Global Environment Facility -GE F). The objective of the project is to catalyse investments in renewable energy-based mini-grids and village energy centres (VECs) to reduce GHG emissions and contribute to the achievement of Lesotho's Vision 2020 and SE4All goals. The project was conceptualized and submitted to GEF in 2014. A fully-fledged project document (Prodoc) was developed and submitted to GEF in September 2015. The GEF approved the project in May 2016 for implementation up to the year 2021. The approved project was further presented to Local Appraisal Committee (LPAC) on June 2016 for approval, which was followed by an Inception workshop held on 24th November 2016, where the project was launched.

The project design is effectively two-fold; assisting with the creation of an enabling framework to support the long- term investment in off-grid energy service delivery and, importantly, piloting various energy service delivery options with a particular emphasis on mini-grids and more distributed energy service options referred to as energy centres. The project is being implemented in the five selected mountainous districts of Lesotho namely Mophale's Hoek, Mokhotlong, Thaba-Tseka, Quthing and Quthing. Although they are difficult and expensive to reach by the national grid extension, they are generally rich in at least one renewable energy resource. A number of villages in these districts were considered for mini-grid implementation and others for energy centres using elaborate selection criteria. The project is designed to lay the foundations of a successful, post-project, rural energization initiative.

Indeed, the project was designed to catalyse investments in renewable energy-based mini-grids and energy centres. It will do so by leveraging \$22,767,837 in multilateral and private sector financing over the project/immediate post-project implementation period. Over the project and post-project period, 60 villages will be energised through the utilisation of renewable energy technologies and 20 energy centres will be established to each service at least 5 surrounding villages. Energisation of the 60 villages and establishment of the 20 energy centres villages will result in a total of 213,680 tonnes of CO₂ being abated during the project/immediate post-project period, resulting in a direct abatement cost of \$16/tonne of CO₂. The project will achieve this target by introducing a conducive regulatory framework and by establishing a financial support scheme that together will facilitate private sector participation in village energisation through renewable energy mini-grids and establishment of energy centres in the country.

Lesotho recorded four (4) confirmed positive cases of COVID-19 as of 15 June 2020 and by 26 July 2020, this increased to 605 cases and 12 deaths. The transmission of infections grew exponentially from end of December 2020 to end of February 2021 with 10,491 cases and 292 deaths. As of 30 June, the country has 11,344 cases and 329 deaths. During the second wave of COVID-19 at the beginning of 2021, the country was under a hard lockdown that included travel and public gathering restrictions. The third wave of Covid-19 occurred between mid-July and August 2021 while the most recent forth wave of COVID-19 appeared during December 2021 and started abating during mid-January 2022. The country has recorded a total of 32,434 cases with 696 fatalities. The earlier easing of the lockdown restrictions in April 2021 has not been re-implemented in response to the 3rd and 4th COVID-19 waves although conferences, meetings, workshop with observation of COVID-19 protocols is still strictly applicable. Indeed, the GoL lifted the remaining lockdown restrictions on the 25th January 2022. International travel is also permitted while observing COVID19 protocols including 72 hours negative certificate are still mandatory. The mentioned lockdowns that had been imposed on the country during the second quarter of 2020 and beginning of 2021 led to travel restrictions - for all non-essential services and emphasized on COVID-19 protocols including social distancing - across the country and as such government counterparts have not been able to focus on the project activities. Travel restrictions had a bearing on project activities as implementation partners and project developers could not travel to operationalise and monitor activities, preventing project staff and the implementing partners from accessing the project sites and beneficiary communities, undermining the project momentum related to VECs and mini-grid development. While most of the restrictions have been lifted, the legacy of their impacts remains for consideration.

3. TE PURPOSE

The TE report will assess the achievement of project results against what was expected to be achieved, and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency, and assesses the extent of project accomplishments.

It is recognized that the SE4All project and its interventions have been designed and implemented to serve as spring boards for the current and future VEC and Mini-grid project developers to upscale and replicate across the country. Therefore, while the current project has defined timeframes and is due to close in October 2022, the Implementing Partners (DoE) and Project Developers need to build on the momentum created. As such the TE must critically review the SE4All project within this context and provide sound recommendations as to how the Implementing Partners/Project Developers may build on and perpetuate the work, making the most of the best practice that was established and learning from of the challenges encountered by the project.

Both the government of Lesotho, specifically the DoE and related ministries, together with the UNDP Country Office in Lesotho, are the primary targets for the TE, its findings and recommendations. The relevant government ministries will need to take the TE findings and recommendations into their planning for the short-, medium- and long-term. The SE4All and other similar interventions are donor funded and it is crucial that the Government begins earnestly to seek ways in which it can become increasingly donor-independent and demonstrate a commitment to perpetuating donor-funded project such as this one.

The UNDP Country Office in Lesotho will take the findings and recommendations of the TE and use them (a) ensure alignment with similar existing and future projects, (b) to better inform the design of future funding proposals and projects, and (c) to improve the way in which they operate as an executing agency for funding sources such as the GEF.

The COVID-19 pandemic negatively impacted on the project implementation. A number of field-based activities linked to site identification, servicing and marketing were subject to a range of restriction including curfews, as was the performance of various international and local consultants who were tasked with a number of missions procured by the programme. The SE4All programme has a large rural community centred focus, including the establishment and operation of VECs and mini-grids which were severely impacted by these restrictions.

4. TE APPROACH & METHODOLOGY

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

The TE team will review all relevant sources of information including documents prepared during the preparation phase (i.e., PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project

Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The TE team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins.

The TE team is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), Implementing Partners, the UNDP Country Office, the Regional Technical Advisor, the Chief Technical Advisor, direct beneficiaries and other stakeholders.

Engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to a selection of intervention/beneficiary champions; executing agencies at all three spheres of governance (national, district and community council), senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc. Additionally, the TE team is expected to conduct field missions to a representative sample of sites within the five targeted district of Mhales Hoek, Quthing, Qachas Nek, Thaba-Tseka and Mokhotlong including the following project sites.

District	Mini-grid location	Energy Centre location
Qacha's Nek	Lebakeng	Melikane
	Sehlabathebe	Matebeng
Mokhotlong	Tlhanyaku	Malingoaneng
	Matsoaing	Linakaneng
Quthing	Sebapala	Majara/Kubung
	Tosing (Dalewe)	Qhoali
Thaba-Tseka	Sehonghong	Ha Mokoto (Litsoetse)
	Mashai	Linakeng
Mohale's Hoek	Ketane	Phamong
	Ribaneng ⁴⁴	Koebunyane

The specific design and methodology for the TE should emerge from consultations between the TE team, UNDP and Project Team regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given limitations of budget, time and data.

The TE team must use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other crosscutting issues and SDGs are incorporated into the TE report.

The final methodological approach including interview schedule, field visits and data to be used in the evaluation must be clearly outlined in the TE Inception Report and be fully discussed and agreed between UNDP, stakeholders and the TE team. As such the approach must be contextually specific and flexible enough to accommodate local conditions and dynamics discussed and agreed to in consultations between the TE consultants, the evaluation manager and key stakeholders.

In case of COVID-19, as of 11 March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic as the new coronavirus rapidly spread to all regions of the world. Travel to the country and in the country was once restricted during the lockdowns but currently allow since April 2021. While travel restrictions, subject to Covid-19 Protocols, have been lifted, if in the event that conditions change and it is not possible to travel to or within the country for the evaluation then the evaluation team should develop a methodology that takes this into account to conduct the evaluation virtually and remotely, including the use of remote interview methods and extended desk reviews, data analysis, surveys and evaluation questionnaires. This should be detailed in the Inception report and agreed with the Evaluation Manager.

If all or part of the evaluation is to be carried out virtually then consideration should be taken for stakeholder availability, ability or willingness to be interviewed remotely. In addition, their accessibility to the internet/

⁴⁴ Ribaneng was erroneously included in Mohale's Hoek in the Project Document. It is located within the Mafeteng District.

computer may be an issue as many government and national counterparts may be working from home. These limitations must be reflected in the evaluation report.

If a data collection/field mission is not possible then remote interviews may be undertaken through telephone or online (skype, zoom etc.). International consultants can work remotely with national evaluator support in the field if it is safe for them to operate and travel. No stakeholders, consultants or UNDP staff should be put in harm's way and safety is the key priority. A short validation mission may be considered if it is confirmed to be safe for staff, consultants, stakeholders and if such a mission is possible within the evaluation schedule. Equally, qualified and independent national consultants can be hired to undertake the evaluation and interviews in country as long as it is safe to do so.

There agreements and the approach will be reflected clearly in the TE Inception Report. The final report must describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

5. DETAILED SCOPE OF THE TE

The TE will assess project performance against expectations set out in the project's Strategic Results Framework (see ToR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects.

It is envisaged that the TE will begin by the beginning of April 2022 and be completed no later than 30 June 2022. The primary issues of concern to users that the TE needs to address are as follows:

- Have the project interventions in terms of capacity building been adequate enough to ensure that capacity for the planning and implementation of climate change adaptation and mitigation interventions are possible by all three spheres of government in Lesotho?
- Has the country's legal and policy framework been sufficiently bolstered by the project such that a suitably adequate enabling environment has been established for the planning and implementation of climate change adaptation and mitigation interventions at and by all three spheres of government in Lesotho?
- Are there sufficient examples of climate-smart land management interventions aimed at building community-based resilience to the projected impacts of climate change in the country, and are these of such a nature that they can be easily and cost-effectively up-scaled and replicated to other parts of the country?
- Have the interventions of the project at community level made a meaningful impact to the livelihoods of the beneficiaries such that it can be said that their resilience to and awareness of the projected impacts of climate change has been enhanced?

The Findings section of the TE report will cover the topics listed below. A full outline of the TE report's content is provided in ToR Annex C. The asterisk “(*)” indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven-ness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Standards (Safeguards)
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder participation
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Actual stakeholder participation and partnership arrangements Project Finance and Co-finance

- Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)
- Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)
- Risk Management, including Social and Environmental Standards (Safeguards)

iii. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements
- Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
- Sustainability: financial (*), socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)
- Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant) GEF Additionality
- Catalytic Role / Replication Effect
- Progress to impact

Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.
- The TE report should also include lessons that can be taken from the evaluation, including best practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.
- It is important for the conclusions, recommendations and lessons learned of the TE report to incorporate gender equality and empowerment of women.

The TE report will include an Evaluation Ratings Table, as shown below:

ToR Table 2: Evaluation Ratings

Monitoring & Evaluation (M&E)	Rating⁴⁵
M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	
Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	

⁴⁵ Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
Assessment of Outcomes	Rating
Relevance	
Effectiveness	
Efficiency	
Overall Project Outcome Rating	
Sustainability	Rating
Financial resources	
Socio-political/economic	
Institutional framework and governance	
Environmental	
Overall Likelihood of Sustainability	

6. TIMEFRAME

Timeframe	Activity
29 March 2022	Application closes
31 March 2022	Selection of TE team
14 April 2022	Preparation period for TE team (handover of documentation)
15-20 April 2022 - 4 days	Document review and preparation of TE Inception Report
28 April - 04 May 2022 - 5 days	Finalization and Validation of TE Inception Report; latest start of TE mission
09 – 27 May 2022 - 15 days	TE mission: stakeholder meetings, interviews, field visits, etc.
31 May 2022	Mission wrap-up meeting & presentation of initial findings; earliest end of TE mission
01 – 07 June 2022 - 5 days	Preparation of draft TE report
08 June 2022	Circulation of draft TE report for comments
23 – 27 June 2022 - 3 days	Incorporation of comments on draft TE report into Audit Trail & finalization of TE report
08 July 2022	Preparation and Issuance of Management Response
11 – 13 July 2022 – 3 days	Expected date of full TE completion

7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report including a workplan and evaluation schedule.	TE team clarifies objectives, methodology and timing of the TE	No later than 2 weeks before the TE mission: <i>(by 21 April 2022)</i>	TE team submits Inception Report to Commissioning Unit and project management
2	Presentation	Initial Findings	End of TE mission: <i>(by 06 May 2022)</i>	TE team presents to Commissioning Unit and project management
3	Draft TE Report for comments	Full draft report <i>(using guidelines on report content in ToR Annex C)</i> with annexes	Within 3 weeks of end of TE mission: <i>(by 07 June 2022)</i>	TE team submits to Commissioning Unit; reviewed by RTA, Project Coordinating Unit, GEF OFP
5	Final TE Report* + Audit Trail	Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report <i>(See template in ToR Annex H)</i>	Within 1 week of receiving comments on draft report: <i>(by 27 June 2022)</i>	TE team submits both documents to the Commissioning Unit

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

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

*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.

8. TE ARRANGEMENTS

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is the UNDP Country Office in Maseru, Lesotho.

The Commissioning Unit will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the TE team. The Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits. In the case of COVID-19 restrictions, UNDP liaising with Project Team will support the implementation of remote/virtual meetings and an updated stakeholder list with contacts details (phone and/or email) will be provided to the evaluation team.

9. TE TEAM COMPOSITION

A team of two independent evaluators will conduct the TE – one team leader, International (with experience and exposure to projects and evaluations in other regions) and one team expert from the country of the project. The team leader will be responsible for the overall design and writing of the TE report, coordination of the allocation of work load between the team members, providing guidance to the process of review and evaluation of project document and reports, and primary liaison with the evaluation manager. The team expert will assess emerging trends with respect to regulatory frameworks, budget allocations, and work with the Project Team in developing the TE itinerary, while providing support to the team leader as agreed to in the contract negotiations and Inception process.

The evaluators cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document), must not have conducted this project's Mid-Term Review and should not have a conflict of interest with the project's related activities.

9.1. TEAM LEADER

Education

- Master's degree in natural sciences, energy, Environment, engineering with specific reference to climate change mitigation or other closely related field (10%);

Experience

- Relevant experience with results-based management evaluation methodologies (10%);
- Experience applying SMART indicators and reconstructing or validating baseline scenarios (5%);
- Competence in adaptive management, as applied to Climate Change Mitigation (CCM-3: Investment in renewable energy technologies increased. (5%));
- Experience in evaluating projects (15%);
- Experience working in Africa, particularly Southern Africa (5%);
- Experience in relevant technical areas for at least 5 years (10%);
- Demonstrated understanding of issues related to gender and Climate Change Mitigation (CCM-3: Investment in renewable energy technologies increased; experience in gender responsive evaluation and analysis (5%);
- Excellent communication skills (5%);
- Demonstrable analytical skills (5%);
- Project evaluation/review experience within United Nations system will be considered an asset.

Language

- Fluency in written and spoken English.

9.2. TEAM EXPERT

Education

- Master's degree in natural sciences, energy, Environment, engineering with specific reference to climate change mitigation or other closely related field (10%);

Experience

- Relevant experience with results-based management evaluation methodologies (10%);
- Experience applying SMART indicators and reconstructing or validating baseline scenarios (5%);
- Competence in adaptive management, as applied to Climate Change Mitigation (CCM-3: Investment in renewable energy technologies increased. (5%));
- Experience in evaluating projects (10%);
- Experience working in Lesotho (10%);
- Experience in relevant technical areas for at least 10 years (10%);
- Demonstrated understanding of issues related to gender and Climate Change Mitigation (CCM-3: Investment in renewable energy technologies increased; experience in gender responsive evaluation and analysis (5%);
- Excellent communication skills (5%);
- Demonstrable analytical skills (5%);
- Project evaluation/review experience within United Nations system will be considered an asset.

Language

- Fluency in written and spoken English.
- Fluency in written and spoken Sesotho.

10. EVALUATOR ETHICS

The TE team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluator must safeguard the rights and confidentiality of information providers, interviewees and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluator must also ensure security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

11. PAYMENT SCHEDULE

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

Criteria for issuing the final payment of 40%:

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

12. APPLICATION PROCESS

Recommended Presentation of Proposal:

- a) Letter of Confirmation of Interest and Availability using the template provided by UNDP;
- b) CV and a Personal History Form (P11 form);

- c) Brief description of approach to work/technical proposal of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
- d) Financial Proposal that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

All application materials indicating the following reference “Consultant for Terminal Evaluation of “Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress (PIMS 5367)” should be submitted by email at the following address ONLY: (ls.procurement@undp.org) by (12:00 am Lesotho Time On 29 March 2022). Incomplete applications will be excluded from further consideration.

Criteria for Evaluation of Proposal: Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP’s General Terms and Conditions will be awarded the contract.

ANNEX B: TERMINAL EVALUATION CRITERIA AND THE QUESTIONS

Before undertaking the Terminal Evaluation, an Inception Report was presented, including the proposed tasks, activities and deliverables, as well as a table of main evaluation questions that need to be answered to determine and assess project results. The evaluation/review criteria and questions are presented in the Table below.

Contents	Main questions and Terminal Evaluation Scope
<ul style="list-style-type: none"> • Title page with basic report information • Table of contents • Acronyms and abbreviations 	
Executive Summary <ul style="list-style-type: none"> • Project Summary Table • Project Description (brief) • Evaluation Rating Table • Summary of conclusions, recommendations and lesson 	
1. Introduction <ul style="list-style-type: none"> • Context; purpose of the Terminal Evaluation and objectives • Scope and methodology of the Terminal Evaluation • Structure of the Terminal Evaluation Report 	
2. Project description and development context <ul style="list-style-type: none"> • Project description and development context (objectives, project participants, objectives and main outcomes; Project duration and timing) • Problems that the project sought to address • Immediate and development objectives of the project • Baseline indicators established • Main stakeholders • Expected Results 	
3. Findings: Project Design and Formulation	
<ul style="list-style-type: none"> • Analysis of LFA/Results Framework • Assumptions and Risks • Lessons from other relevant projects • Planned stakeholder participation • Replication approach • UNDP comparative advantage • Linkages between project and other interventions within the sector • Management arrangements 	<ul style="list-style-type: none"> • Were the project's objectives and components clear, practicable and feasible within its time frame? • Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed? • Were lessons from other relevant projects properly incorporated in the project design? • Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval? • Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry? • Were the project assumptions and risks well-articulated in the PIF and project document? • Whether the planned outcomes were "SMART"?
4. Findings: Project Implementation	
4.1 Adaptive management	<u>ADAPTIVE MANAGEMENT</u> <ul style="list-style-type: none"> • Did the project undergo significant changes as a result of recommendations from the mid-term review? Or as a result of other review procedures? Explain the process and implications. • If the changes were extensive, did they materially change the expected project outcomes?

Contents	Main questions and Terminal Evaluation Scope
4.2 Partnership arrangements	<ul style="list-style-type: none"> • Were the project changes articulated in writing and then considered and approved by the project steering committee? • Whether feedback from M&E activities was used for adaptive management? • Whether changes were made to project implementation as a result of the MTR recommendations? <p><u>PARTNERSHIP ARRANGEMENT</u></p> <ul style="list-style-type: none"> • Were there adequate provisions in the project design for consultation with stakeholder. • Whether effective partnerships arrangements were established for implementation of the project with relevant stakeholders involved in the country/region, including the formation of a Project Board? • Whether lessons from other relevant projects incorporated into project implementation?
4.3 Project Finance	<p><u>PROJECT FINANCE / CO-FINANCE</u></p> <ul style="list-style-type: none"> • Whether there was sufficient clarity in the reported co-financing to substantiate in-kind and cash co-financing from all listed sources. • What are the reasons for differences in the level of expected and actual co-financing? • To what extent project components supported by external funders were well integrated into the overall project? • What is the effect on project outcomes and/or sustainability from the extent of materialization of co-financing? • Whether there is evidence of additional, leveraged resources that have been committed as a result of the project?
4.4 Monitoring and evaluation: design at entry	<p><u>PROJECT MONITORING & EVALUATION (AT DESIGN)</u></p> <ul style="list-style-type: none"> • Is the M&E plan well-conceived at the design stage? • Is M&E plan articulated sufficient to monitor results and track progress toward achieving objectives? • Was the M&E plan sufficiently budgeted and funded during project preparation and implementation? • How effective are the monitoring indicators from the project document for measuring progress and performance;
4.5 monitoring and evaluation: implementation	<p><u>MONITORING & EVALUATION (IMPLEMENTATION)</u></p> <ul style="list-style-type: none"> • Whether the logical framework was used during implementation as a management and M&E tool? • What has been the level of compliance with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports; • What has been effectiveness of the monitoring reports and evidence that these were discussed with stakeholders and project staff; • What is the extent to which follow-up actions, and/ or adaptive management, were taken in response to monitoring reports (APR/PIRs); • Whether APR/PIR self-evaluation ratings were consistent with the MTR and TE findings. If not, were these discrepancies identified by the project steering committee and addressed?
4.6 UNDP and Implementing Partner implementation / execution coordination, and operational issues	<p><u>GEF IMPLEMENTING AGENCY EXECUTION - UNDP</u></p> <ul style="list-style-type: none"> • Whether there was an appropriate focus on results • Was there adequate UNDP support to the Implementing Partner and project team • Quality and timeliness of technical support to the Executing Agency

Contents	Main questions and Terminal Evaluation Scope
	<p>and project team</p> <ul style="list-style-type: none"> Were the management inputs and processes, including budgeting and procurement adequate
5. Findings: Project Results	
5.1 Overall results	<p><u>OVERALL RESULTS</u></p> <ul style="list-style-type: none"> What is the achievement of the objectives against the end of the project values of the log-frame indicators for project objectives, outcomes, outputs, indicating baseline situation and target levels, as well as position at the close of the project? What are the achievements /Results in terms of contribution to sustainable development benefits, as well as global environmental benefits (direct and indirect GHG emission reduction)? How does the GEF Tracking Tool/GEF Core indicators at the Baseline and the one completed right before the Midterm Review with that Prepared at the time of Terminal Evaluation compare?
5.2 Relevance	<p><u>RELEVANCE</u></p> <ul style="list-style-type: none"> To what extent the activity is suited to local and national development priorities and organizational policies, including changes over time.? To what extent the project is in line with UNDP Operational Programs or the strategic priorities under which the project was funded?
5.3 Effectiveness & Efficiency	<p><u>EFFECTIVENESS</u></p> <ul style="list-style-type: none"> To what extent the objectives, expected outcomes and outputs have been achieved? To what extent the results have been delivered with the least costly resources possible? What are the positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention?
5.4 Country ownership	<p><u>COUNTRY OWNERSHIP</u></p> <ul style="list-style-type: none"> Was the project concept in line with development priorities and plans of Lesotho? Were the relevant country representatives from government and civil society involved in project implementation, including as part of the project steering committee? Was an inter-governmental committee given responsibility to liaise with the project team, recognizing that more than one ministry should be involved? Have the government(s), enacted legislation, and/or developed policies and regulations in line with the project's objectives?
5.5 Mainstreaming	<p><u>MAINSTREAMING</u></p> <ul style="list-style-type: none"> How the project is successfully mainstreaming other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment. Whether it is possible to identify and define positive or negative effects of the project on local populations (e.g., income generation/job creation, improved natural resource management arrangements with local groups, improvement in policy frameworks for resource allocation and distribution, regeneration of natural resources for long term sustainability). Do the project objectives conform to agreed priorities in the UNDP country programme document (CPD) and country programme action plan (CPAP)?

Contents	Main questions and Terminal Evaluation Scope
5.6 Sustainability	<ul style="list-style-type: none"> • Whether there is evidence that the project outcomes have contributed to better preparations to cope with natural disasters. • Whether gender issues had been taken into account in project design and implementation and in what way has the project contributed to greater consideration of gender aspects, (i.e., project team composition, gender-related aspects of pollution impacts, stakeholder outreach to women's groups, etc.) <p><u>SUSTAINABILITY</u></p> <p><u>Financial risks:</u></p> <ul style="list-style-type: none"> • Are there financial risks that may jeopardize the sustainability of project outcomes? • What is the likelihood of financial and economic resources not being available once GEF grant assistance ends? <p><u>Socio-economic risks:</u></p> <ul style="list-style-type: none"> • Are there social or political risks that may threaten the sustainability of project outcomes? • What is the risk for instance that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? • Do the various key stakeholders see that it is in their interest that project benefits continue to flow? • Is there sufficient public/stakeholder awareness in support of the project's long-term objectives? <p><u>Institutional framework and governance risks:</u></p> <ul style="list-style-type: none"> • Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? • Are requisite systems for accountability and transparency, and required technical knowhow, in place? <p><u>Environmental risks:</u></p> <ul style="list-style-type: none"> • Are there ongoing activities that may pose an environmental threat to the sustainability of project outcomes? <p><u>IMPACT</u></p> <ul style="list-style-type: none"> • Whether, the project has demonstrated verifiable improvements in ecological status? • Whether, the project has demonstrated verifiable reductions in stress on ecological systems through specified process indicators, that progress is being made towards achievement of stress reduction and/or ecological improvement?
5.7 Impact	
6. Conclusions, Recommendations and Lessons	
	<ul style="list-style-type: none"> • Did the project provide cost-effective solutions in order to address barriers? • Are these solutions provided in an efficient way? • What are the best and worst practices in addressing issues relating to relevance, performance and success? • Corrective actions for the design, implementation, monitoring and evaluation of the project • Actions to follow up or reinforce initial benefits from the project • Proposals for future directions underlining main objectives
Annexes <ul style="list-style-type: none"> • TOR • List of people interviewed • Documents reviewed and bibliography 	

Contents	Main questions and Terminal Evaluation Scope
	<ul style="list-style-type: none"> • Terminal Evaluation evaluative matrix (criteria, questions, indicators) • Signed UNEG code of conduct forms • Other information, as needed

ANNEX C: DOCUMENTS REVIEWED

1. SE4All Project document
2. SE4All PIF
3. SE4All Inception report (2016)
4. SE4ALL midterm review report
5. Midterm Review management response
6. Project Implementation Reports (PIRs) 2018, 2019, 2020, 2021, 2022 (draft)
7. Combined Delivery Reports (CDRs) 2016, 2017, 2018, 2019, 2020, 2021, 2022
8. Project Steering Committee Minutes (Feb 2017, Apr 2017, Jul 2017, Oct 2017, Dec 2017
Apr 2018, Aug 2018, Oct 2018, Dec 2018
May 2019, Oct 2019, Dec 2019
May 2020, Dec 2020
Jan 2021, Aug 2021)
9. Audit reports, 2019, 2020, 2021
10. Annual Workplans 2019, 2020, 2021, 2022
11. SE4All Awareness raising and community mobilization report
12. SE4All Participation to Gender survey and sensitization to the communities
13. Mission reports to various project sites
14. Project progress reports quarterly and annual
15. SPSS training report, 2022
16. Gender mainstreaming for the energy sector, 2020
17. Household energy consumption survey report, 2019
18. Prefeasibility studies for the mini grids and energy centres in Lesotho
19. Energy sector coordination forum minutes and presentations
20. Mini grid concession agreements for all the project sites
21. Mini grid progress reports Sep 2021, Nov 2021, Jan 2022
22. Energy centres monthly progress reports by KESI, Solar lights and RSDA
23. SE4All Country action agenda
24. Contract between UNDP and UNCDF
25. SE4All Lesotho investment prospectus
26. Lesotho mini grid regulations
27. Socioeconomic studies for the mini grids (Mashai and Sehlabathebe)
28. Restructuring the Performance based grants for Village Energy Centers and Renewable Energy Mini grids
29. Electricity Supply Cost of Service Study – LEWA Lesotho, Final Report (2018)
30. Country programme document for Lesotho, 2019-2023 (UNDP, UNPF, UNOPS)
31. Energy Policy 2015
32. Lesotho Renewable Energy-Based Rural Electrification Project (LREBRE), Terminal Evaluation Report

ANNEX D: FIELD VISITS AND LIST OF PEOPLE INTERVIEWED

Name	Institution/Organization/Community	Gender
Thabang Phuroe	SE4All Project Officer	M
Qenewe Maqekoane	Assistant Economic Planner, DOE	F
Jerry Seithleko	Dept of Energy - Director	M
Nessie Golakai-Gould	UNDP - Deputy Resident Representative	F
Lengeta Mabea	Principal Energy Officer (Renewable Energy) Officer, Project Focal Person	M
Muso Raliselo	Principal Energy Officer - Planning	M
Limomane Peshoane	UNDP - Sustainable Development Advisor	M
Monti Ntlopo	LEWA, Manager, Technical Regulatory-Electricity	M
*Makhahliso Nokana	MEM, Chief Economic Planner	F
Ms. Sina Makana	Economic Planner – Min of Dev Planning	F
Obed Morojele	Mokhotlong District Council - Admin Manager	M
*Malephallo Mohasoa	Thaba-Tseka District Council - Admin Manager	F
Litsitso Ramakhula	Mohale's Hoek District Council – Admin Manager	M
Teboho Toai	Quthing District Council, Admin Manager	M
*Malehloa Molato	Bureau of Statistics, Director	F
Stanley Damane	Director, Dept. of Environment , GEF Focal Point	M
Thabo Fonya	Lerotholi Polytechnic, Lecturer,	M
Molefe Makhele	NUL, Head of Dept, Physics and Electronics	M
Bokang Shakhane	Senior Energy Officer, Renewable Energies	M
Robert Aitken	Chief Technical Advisor (CTA)	M
Tsepiso Thabane	Chief Statistician, BOS	F
Mamosebetsi Hlongoane	Senior Statistician, BOS	F
Mantsoa Mabile	Senior Statistician, BOS	F
Mabafokeng Masupha	Assistant Statistician, BOS	F
Michael Mboowa	UNCDF	M
Mampho Thulo	RSDA	F
Eden Motsoale	RSDA	M
Tumelo Makhetha	One Power	M
Palama Kelepa	One Power	M
Michael Hones	Solar Lights	M
Makatse Joala	Solar Lights	F
Keketso Sefane	KESI Business Solutions	M
Jan Schalk	World Bank	M
Moeketsi Mpholo	National University of Lesotho	M
Kao Moruti	National University of Lesotho	M
Moroka Tlhabeli	One Power, Mashai	M
Mokoatle Mokoatle	One Power, Mashai	M
Lekhelebane Rantso	One Power, Sehonghong	M
Sello Monoane	One Power, Sehonghong	M
Pemane Rafube	One Power, Sehonghong	M
Selloane Motonosi	Matebeng, Energy Center	F
Matheko Makhaola	Sehlabathebe	F
Liakae Makhaola	Sehlabathese	F
Maatlehang Motloang	Sehlabathebe	F
Makatlheho Morethi	Sehlabathese	F
Jean Benoit Fournier	RTA	M
Joseph Mokhachane	Linakaneng	M
Makhaila Mokati	Linakeng	F
Khethang Kubutu	Matsoaing	M
Moferefere Mrooke	Matsoaing	M
Motlatsi Rantso	Matsoaing	M
Ntsane Lebeko	Matsoaing	M
Semousu Mohale	Matsoaing	M
Maqetelo Ntooa	Matsoaing	F
Koenane Lephoto	Matsoaing	M
Thabo Rantso	Matsoaing	M
Motseare Sefane	Matsoaing	M
Nkune Nkune	Matsoaing	M
Keneuoe Lengoasa	Malingoaneng	F

Name	Institution/Organization/Community	Gender
Mathabo Tohlang	Ha Tlali	F
Thabelang Mosuoe	Ha Tlali	M
Jane Lefojane	Sebapala	M
Teboho Makhoalinyane	Sebapala	M
Malehlohonolo Tlaitlai	Sebapala	F
Mangange Scholoholo	Sebapala	M
Khauhelo Mosenene	Sebapala	M

ANNEX E: SIGNED UNEG CODE OF CONDUCT FORMS

Evaluators/reviewers:

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

Evaluation/reviewer Consultant Agreement Form

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

Name of Consultant: Dinesh Aggarwal

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



(Dinesh Aggarwal)

20 September 2022

ANNEX F: TE REPORT AUDIT TRAIL

In accordance with the guidelines the audit trail is being submitted as a separate file

ANNEX G: EVALUATION REPORT CLEARANCE FORM

Evaluation Report Reviewed and Cleared by

UNDP Country Office

Name: _____

Signature: _____

Date:

UNDP GEF RTA

Name: _____

Signature: _____

Date:
