



United Nations Development Programme

*Empowered lives.
Resilient nations.*

UNITED NATIONS DEVELOPMENT PROGRAMME
GLOBAL ENVIRONMENT FACILITY
Government of Tajikistan

UNDP/GEF Green Energy Small Medium Enterprises (SMEs) Development
Project in Tajikistan

GEF ID: 9191
Project ID: 00101356
UNDP PIMS No. 5476

Mid Term Review Report

Review Team Members
International Consultant: National Consultant:
Matthew Addison Shukhrat Igamberdyev

May 12, 2021

The views and opinions expressed herein are those of the author(s) and do not necessarily represent those of the UNDP

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to the Green Energy Project Administrative/Financial Assistant, Mr. Parvin Mominov and the Chief Technical Advisor, Mr. Paata Janelidze, as well as, the Team Leader of the Resilience Cluster, Mrs. Nargizakhon Usmanova, and Mr. Christophoros Politis, Deputy Resident Representative. They all went well beyond the normal effort, providing us support and assistance round the clock. Their tireless effort made this MTR possible in a short period of time.

The Evaluation Team would also like to express their gratitude to the Regional Technical Advisor, Mr. John O'Brien, who provided detailed background knowledge on project design and implementation.

The Evaluation Team had the support of all the persons that have been interviewed to understand the context in which the Project has been developed, analyze the progress to date of the different activities that have been programmed and elaborate the conclusions and recommendations presented in this report.

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	1
1.1. Project Information Table.....	1
1.2. Project Description	1
1.3. Project Progress Summary	3
1.4. MTR Ratings & Achievement Summary Table	5
1.5. Summary of conclusions.....	7
1.6. Recommendation Summary Table	8
2. Introduction	11
2.1. Purpose of the MTR and objectives.....	11
2.2. Scope & Methodology	11
2.3. Structure of the MTR report.....	12
3. Project Description and Background Context	13
3.1. Development context	13
3.2. Project Description and Strategy.....	13
3.3. Project Implementation Arrangements	16
3.4. Project timing and milestones.....	17
3.5. Main stakeholders	17
4. Findings	20
4.1. Project Strategy	20
4.1.1. Project Design.....	20
4.1.2. Results Framework/Logframe	24
4.2. Progress Towards Results	28
4.2.1. Progress towards outcomes analysis	30
4.2.2. Remaining barriers to achieving the project objective	42
4.3. Project Implementation and Adaptive Management	44
4.3.1. Management Arrangements	44
4.3.2. Work planning	47
4.3.3. Finance and co-finance.....	48
4.3.4. Project-level monitoring and evaluation systems	50
4.3.5. Stakeholder engagement	50
4.3.6. Reporting	51
4.4. Sustainability	52
4.4.1. Financial risks to sustainability	52
4.4.2. Socio-economic Risks to sustainability.....	52
4.4.3. Institutional framework and governance risks to sustainability	52
4.4.4. Environmental risks to sustainability.....	53
4.5. Summary.....	53
4.5.1. Component 1: Enabling policy and regulatory framework and capacity development for GE SMEs	53
4.5.2. Component 2: Access to finance for GE SMEs and/or service users.....	53
4.5.3. Component 3: Business models for GE SMEs.....	53
4.5.4. Component 4: Knowledge Management and Monitoring and Evaluation (M&E)	54
5. Conclusions and Recommendations	55
5.1. Conclusions.....	55
5.2. Recommendations.....	56
5.2.1. Project Management.....	56
5.2.2. Component 1.....	58
5.2.3. Component 2.....	58
5.2.4. Component 3	58

5.2.5. Component 4	59
6. Annexes.....	61
6.1. Midterm Review Terms of Reference.....	62
6.2. MTR evaluative matrix.....	73
6.3. Example Questionnaire or Interview Guide used for data collection	81
6.4. Ratings Scales	85
6.5. MTR mission itinerary.....	86
6.6. List of persons interviewed	91
6.7. List of documents reviewed	95
6.8. Signed UNEG Code of Conduct form	97
6.9. MTR final report clearance form	99
6.10. Revised Monitoring Plan.....	100
6.11. Revised Project Results Framework Table.....	112

TABLES

Table 1 SMART Analysis	24
Table 2 Grading Scale.....	32
Table 3 Progress Towards Results Matrix (Achievement of Outcomes against End-of-Project Targets)	33
Table 4 Barriers to achieving project objectives and impacts	42
Table 5 Cumulative Project Finance.....	48
Table 6 Co-financing.....	49

FIGURES

Figure 1 Tajikistan's Macro-economic Outlook	13
Figure 2 Theory of Change	21
Figure 3 Organisation Structure	44
Figure 4 Revised Organisation Structure	46
Figure 5 Proposed Project Cycle	57

ABBREVIATIONS

ADB	Asian Development Bank
CCM	Climate Change Mitigation
CEO	Chief Executive Office
CoEP	Committee on Environmental Protection
CTA	Chief Technical Advisor
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
FSC	Financially Sustainable Scorecard
ESMP	Environmental and Social Management Plans
GBAO	Gorno-Badakhshan Autonomous Okrug
GDP	Gross Domestic Product
GE	Green Energy
GEF	Global Environment Facility
GHG	Greenhouse Gases
KII	Key Informant Interview
KW	Kilowatt
kWh	Kilowatt hour
LoA	Letter of Agreement
M&E	Monitoring and Evaluation
MoEWR	Ministry of Energy and Water Resources
MFI	Micro-finance Institution
METT	Management Effectiveness Tracking Tools
NCE	Nature Climate and Energy
MTR	Mid-term Review
PE	Pamir Energy
PIF	Project Identification Form
PIMS	Project Information Management System
PM	Project Manager

PMU	Project Management Unit
PPG	Project Preparation Grant
ProDoc	Project Document
PV	Photovoltaic
RE	Renewable Energy
RESCO	Renewable Energy Service Company
RTA	Regional Technical Advisor
SC	Steering Committee
SES	Social and Environmental Standards
SESP	UNDP Social and Environmental and Social Screening Template
SHS	Solar Home System
SMART	Specific Measurable Attainable Relevant Time-bound
SME	Small and medium enterprise
SWH	Solar Water Heating
TA	Technical Assistance
TOR	Terms of Reference
UNDP	United Nations Development Program
UNDP-GEF	UNDP Global Environmental Finance
UNEG	United Nation Evaluation Group
UNFCCC	United Nations Framework Convention on Climate Change

1. EXECUTIVE SUMMARY

1.1. PROJECT INFORMATION TABLE

Project Title:	Green Energy Small Medium Enterprises (SMEs) Development Project		
UNDP Project ID (PIMS #):	5476	Project Approved for Implementation:	January 23, 2018
GEF Project ID (PMIS #):	9191	Project Document (ProDoc) Signature Date (date project began):	July 18, 2018 ¹
Award ID:		Date project manager hired ² :	October 15, 2018
Country:	Tajikistan	Inception Workshop date:	December 5, 2018
Region:	Europe and Central Asia	CTA hire date:	April 8, 2019
Focal Area:	Climate Change	Midterm Review date:	Jan. 2021 – May 2021
Planned closing date:	July 17, 2023 ³	Proposed closing date:	December 31, 2024
Executing Agency:	Ministry of Energy and Water Resources (MoEWR)		
Other Key Partners:	Committee on Environmental Protection (COEP), Committee of Architecture and Construction, Pamir Energy (PE)		
Project Financing	at CEO endorsement (USD)	at Midterm Review (USD)	
(1) GEF financing:	2,519,963.00	297,895.76	
(1.2) UNDP financing:	300,000.00	169,334.60	
(2) UNDP contribution:	4,000,000 ⁴	389,354.92	
(3) Government:	10,500,000.00	3,190,000.00	
(4) Others:	7,150,000.00	8,935,875.00	
(5) Total co-financing [2+3+4]:	21,650,000.00	12,515,229.92	
Project Total Cost [1+1.2+5]:	24,469,963.00	12,982,460.28	

1.2. PROJECT DESCRIPTION

The objective of the “Green Energy Small and Medium Enterprises Development (Green Energy SMEs) Project is to “facilitate the transformation of Tajikistan’s energy sector, in particular the emergence of independent energy entrepreneurs, which can offer affordable and sustainable energy products and

¹ According to Project document, GE project should start in January 2018. However, Project document was signed on 23/05/2018 by the UNDP and on 18/07/2018 by the Government of Tajikistan represented by the Ministry of Energy and Water Resources.

² This is the hiring date of the first project manager who remained in the job only six months.

³ The planned closing date based on starting in January 2018. However, since the project did not start officially until July 18, 2018, the closing date would be July 2023.

⁴ According to the Project Document, USD 600,000 from the UNDP-managed Aide for Trade project; USD 3,400,000 from other UNDP-managed projects: OPEC, LITACA, BOMNAF.

services to the rural population⁵". The project design purports to scale up private investments in green energy (renewable energy and energy efficiency) in rural areas focusing primarily on solar energy (solar PV and Solar water heaters (SWH))⁶; only two of the project activities reference energy efficiency (EE) or small hydro, for example. The project was designed to address an important development challenge in Tajikistan: the need to provide affordable energy to rural areas. The project purports to catalyze the process by creating the conditions for the emergence and development of energy entrepreneurs that will provide affordable energy services to rural area.

The five-year project started on July 18, 2018 and the inception workshop was held on December 5, 2018, before the CTA was onboard to provide guidance. The planned closing date is July 17, 2023.

The four components of the Green Energy SMEs project to meet this challenge are:

Component 1: Creation of Enabling policy and regulatory framework and capacity development for GE SMEs - to address policy and technology risks faced by GE SMEs in Tajikistan. According to the project document the Green Energy SMEs project "will strengthen the policy and regulatory framework for the sustainable energy products and services market". For this purpose, technical assistance (TA) will be provided to MoEWR and the Inter-Institutional Working Group (IIWG) consisting of relevant governmental agencies to support the operationalization of key provisions of the framework laws on Renewable Energy Sources and Energy Saving and Energy Efficiency.

Component 2: Providing Access to finance for GE SMEs and/or energy service users – to facilitate access to affordable finance for households, SMEs and other end-users wishing to invest in EE/RE products and/or services. TA will be provided to partner Micro-finance Institutions (MFIs) and other local finance organizations to develop and promote standard loan products. GEF investment support is also considered under this Component. It will be provided in the form of an interest rate subsidy (up to 10% on commercial loan interest rate). According to the Project document the "maximum threshold for commercial interest rate should be determined at the inception stage based on analysis of prevailing market conditions for eligible EE/RE technologies/projects, namely: solar (SWH, PV), other RE-based technologies and products".

The ProDoc states that "practical collaboration and synergies (are) to be sought under Component 2 in the course of green loan product design and promotion" with the ADB Green Finance Facility and the EBRD Climadapt Fund. The ADB Fund closed on June 30, 2019 and the EBRD Fund closed in January 2019. KIIs did not reveal any attempt by the project to collaborate during 2019. Moreover, it appears that the project did not learn from their experience. The ADB had disbursed \$8.8 million in loans of which 11 were for small RE projects and 6,843 were for EE loans⁷. The EBRD fund has a similar experience.

Component 3: Development of business models for GE SMEs consists of two sub-components:

Sub-Component 3A: Promoting Renewable Energy Service Company⁸ (RESCOs) business for off-grid communities as the cost of grid expansion is not economic. According to ProDoc, the first RESCO model (solar PV-based mini-grid) is to be implemented in GBAO with Pamir Energy⁹.

"It is assumed that RESCOs will operate based on a concessional agreement with the Government of

⁵ Page 1 of the ProDoc. The project objective is stated elsewhere with changes and this is discussed in detail later in the report.

⁶ Paragraph 53 of the ProDoc introduces the description of project activities and states: "The objective of the project is to identify, support and promote scalable, private sector-led business models for provision of affordable and sustainable energy products and services for Tajikistan's rural population, with a focus on solar-based applications (PV and SWH)". The activities then mainly explicitly discuss only PV and SWHs.

⁷ Based on the KII with the ADB Country Office and the EBRD Country Office.

⁸ A RESCO is a company that provides energy to consumers from renewable energy sources. RESCOS include investor owned, publicly owned, cooperatives, and a community organizations.

⁹ Pamir Energy is the only private utility in the country with the concession to supply electricity to GBAO.

Tajikistan to provide energy services to a defined geographic area at agreed tariffs¹⁰. However, due to widespread poverty and high costs of RE plant construction and operation in remote mountainous regions of Tajikistan, public subsidy¹¹ is required to make such a project viable and sustainable for the private company.¹² After completion and evaluation of the first RESCO model, TA will be provided to replicate the RESCO model in other identified off-grid locations.

Sub-Component 3B: Facilitating investment in solar water heating (SWH) by tourism facilities and other SMEs. The ProDoc assumes that “Investment in solar water heating (SWH) systems represents the most cost-effective RE supply options for SMEs in Tajikistan. Despite their cost-effectiveness, however, uptake of SWH by SMEs is low due to many barriers described earlier, which this sub-component will address through a facilitation approach. The choice of “SWH for tourism” as a potential market segment to promote has been made based on” among other considerations, that “SWH is the most mature and the least costly GE technology available on the Tajik market.¹³” The ADB and EBRD Funds and the participating MFIs were to collaborate on this sub-component. The project has not collaborated with or learned from these Funds’ experience either directly from the Funds or from the MFIs.

The principal activity thus far is the “Energy Bus” which is a mobile demonstration platform taking different RE technologies to rural communities.

Component 3 also addresses knowledge and awareness barriers on both the supply and demand sides of the GE market. Identified target groups include (i) general population; (ii) local governments and business sector; (iii) women in 10 villages of Tajikistan were trained on assembling, installation, operation and maintenance of renewable energy services and energy efficiency technologies; and (iv) MFIs. Information and capacity building will be provided concerning RE and EE equipment, products and services in partnership with existing Info-educational Centers, relevant NGOs, and the private sector representatives.

Component 4: Knowledge Management and Monitoring and Evaluation (M&E) - includes collection, analysis and sharing information about GE costs and benefits, as well as by monitoring and evaluating project results (including GHG emission reductions), documenting and disseminating best practices and lessons learnt. A short film “Promotion small-scale EE/RE technologies for rural women in 10 villages of Tajikistan” has been made but has yet aired.

1.3. PROJECT PROGRESS SUMMARY

There was relatively little progress against the project indicators from inception to MTR. Progress is summarized below.

Component 1. Creation of enabling policy and regulatory framework and capacity development for GE SMEs:

- Comprehensive “Country Assessment on GE and SMEs development” concluded in October 2019¹⁴. Assessment included comprehensive review and identification of gaps in the legal and policy framework. Assessment recommendations are not yet integrated in the policy framework (by-laws) but under

¹⁰ Since PE has the concession for GABO, only they can legally be a private sector RESCO there.

¹¹ The Government of Tajikistan (GOT) does not make subsidy contributions to PE. The Swiss Government and the International Development Agency have made the subsidy contribution. There is no evidence to support that the GOT will make public subsidies available.

¹² ProDoc paragraph 14.

¹³ No evidence is provided to support these claims other than the cost that is paid for electricity for heating water which cost is applicable to any commercial or industrial user.

¹⁴ Contract awarded in April 2019 with Frankfurt School of Finance and Management Consortium and NGO Peshsaf (Tajikistan). Findings of the Assessment presented and discussed during a Round Table on October 4, 2019 (with participation of ICTA and RTA).

consultation with the MoEWR.

- Establishment of the Inter-Ministerial Working Group (IMWG) on RES/EE delayed due to COVID-19 pandemic.
- A Study Tour to Kyrgyzstan organized in January 2019 for 10 representatives of the MoEWR, CEP and RES/EE practitioners/private sector and civil society active in energy sector¹⁵;
- Letter of Agreement (LOA) between the MoEWR and the project is in draft form but not signed. This letter turns the implementation of Component 1 over to the MoEWR and clears the way for funds transfer to complete the work.

Component 2. Access to finance for GE SMEs and/or service users:

- A Study of Green Energy market in Tajikistan carried out in 2019, validating the needs and potential for SWH technologies in the country. The study includes (a) financial analysis for 4 GE products using a combination of solar PV and SWH and (b) determined the volume of financial incentives to be provided for these products.
- Analysis of MFIs active in GE microfinancing carried out in 2019 and updated in July 2020. A detailed evaluation criterion for the local MFIs interested in cooperation with the Project has been developed. Remaining follow-up steps temporarily suspended due to COVID-19 pandemic, i.e. – (a) Call for Expression of Interest (Eol) for MFIs¹⁶, (b) selection of MFIs, and (b) Provision of TA and grants to selected MFIs to was developed GE loan products but release was delayed due to COVID-19.

Component 3. Business models for GE SMEs:

Sub-Component 3A: Promoting RESCO – solar energy for off-grid communities:

- The first RESCO model identified, partner (Pamir Energy Company) and site (Murghab, GBAO) selected. Project planned allocation of \$560,000 for Alichur solar project. Remaining \$1.8mln (optimum scenario) from other sources which are not identified yet.
- Feasibility Study¹⁷ for “Installation of a solar generating capacity in Jamoat Alichur, Murghab region of GBAO” completed in December 2020 (with 5 months delay due to COVID-19 pandemic: travel restrictions to project model site).
- Training Programme on the RESCO model has been developed.
- Bidding procedure for installation of solar power plant and associated mini-grid in Jamoat Alichur, based on the outcome of the FS, not launched yet.

Sub-Component 3B: Facilitating investments in SWH by tourism facilities and other SMEs.

- LLC Green Technologies (Tajikistan) was contracted in 2020 to implement a nationwide marketing and awareness raising campaign (MARC) on solar technologies and their benefits for households (especially for female-headed households) and businesses. The LLC implemented planned activities through a “Energy Bus”¹⁸ covering about 18,000 people through MARC.
- Installation of Solar PV plants and SWH collectors at 17 project sites has taken place and was co-financed

¹⁵ The objective of the Study Tour was to get informed on existing practices in Kyrgyzstan and enhance capacities of national government representatives as well as practitioners from the private sector and civil society organizations.

¹⁶ Based on Call for Eol, signing of Grant Agreement with up to 5 MFIs.

¹⁷ Contract signed (in February 2020) with PO Bargi Sabz (Tajikistan) for carrying out FS for construction of a 300kW solar PV-based power plant and installation of a mini-grid in Alichur Jamoat of Murghab district in GBAO region.

¹⁸ Details in Chapter 3.2.1. of the Progress Report #3 by ICTA, Mr. Paata Janelidze.

with OFID. These RE technologies were installed in tourist guesthouses (3 sites), schools (8 sites), and health facilities (6 sites) in rural areas across 13 districts. In total, 10 sites in on-grid and 7 sites in off-grid areas. The total number of people directly benefiting from the RES installation will reach up to 1,600 people and around 11,000 people (30% women) will indirectly benefit from this subproject implementation.

- 15 solar technology technicians (including 2 women) were trained. Rural women in 10 rural communities across Tajikistan are being provided with on-job trainings (do-it-yourself) for assembling, installation, operation, and maintenance of RE and EE installations; This was co-financed with OFID.
- Study Tour to Zagreb, Croatia, planned in March 2020 for 10 representatives from government, NGOs, and private sector, postponed due to COVID-19 pandemic (international travel restrictions).

Component 4. Knowledge Management M&E:

- Workshop conducted on December 6, 2018 on “Strengthening opportunities for women in energy sector of Tajikistan”¹⁹;
- A documentary film produced (10 min) on “Promotion of small-scale EE/RE technologies for rural women in 10 villages of Tajikistan” in May 2020.
- NGO “Youth Ecological Center” contracted to develop and launch a web platform for providers, financiers, and users of EE/RE technologies. The platform serves as a comprehensive information source about RES technologies available in Tajikistan, as well as support in market engagement opportunities. The platform has already been launched (www.neruisabz.tj) in 2019.
- The project has developed an Information Bulletin (2 pages leaflet) with brief information on the project objective, expected outputs, achievements to date.

On the one hand, progress has been hampered by some factors which, for the project team, were unavoidable but regrettable such as COVID-19 (the inability for consultants to travel, hold face-to-face meetings for some time, drastically shrunken remittances, government focused on COVID response), poor project design (see section 4.1.1 for details), and the government’s overriding focus on the Alichur solar PV activity through this project.

On the other hand, progress has also been hampered by avoidable factors such as a lack of proper management, high project team turnover with two project managers who resigned and insufficient stakeholder outreach.

The ratings give equal weight to what has happened and what is expected to happen. On this basis, the project has been judged to be MU, moderately unsatisfactory in terms of meeting overall objective targets. The MTR team has determined that these challenges are not unsurmountable; with proper attention to management, a rethink on the general approach to activities, increased stakeholder engagement, and an 18-month extension, the project can be expected to meet or come close to meeting most of its targets and goals.

1.4. MTR RATINGS & ACHIEVEMENT SUMMARY TABLE

Measure	MTR Rating	Achievement Description
Progress Towards Results	Project Objective: To facilitate the transformation of Tajikistan’s energy sector, in particular the emergence of	At the mid-term review, there was no discernable movement in indicators. There is a narrow window of time to react to immediate opportunities that will prevent the project from going from MU to U; the project team needs to act quickly to turn an informal

¹⁹ Dedicated to 16 Days of Activism against Gender Based Violence, the International Day for the Elimination of Violence against Women (from 25 November to 10 December), Human Rights Day.

<p>independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population.</p> <p>Achievement Rating: Moderately Unsatisfactory (3) (MU)²⁰</p>	<p>agreement with the MoEWR and Pamir Energy into concrete actions.</p>
<p>Outcome 1: Enabling policy and regulatory framework and capacity development for green energy SME</p> <p>Achievement Rating: Moderately Satisfactory (4) (MS)</p>	<p>Some preparatory work has been completed and further work requires that the Letter of Agreement (LOA) between the Project and MoEWR regarding Outcome 1 modalities need to be signed before additional work can start. Analysis at mid-term suggests that targets will be achieved by the end of project provided that the LOA is signed quickly and several more activities need to be implemented in the remaining period²¹.</p>
<p>Outcome 2: Access to finance for green energy SMEs and/or energy service users</p> <p>Achievement Rating: Unsatisfactory (2) (U)</p>	<p>Two preparatory studies have been completed but COVID-19 and the lack of effective stakeholder outreach have been the main culprits preventing further progress. MFIs are eager to work with the project. Analysis of progress at mid-term suggest that the project will not achieve most of its targets unless they refocus attention in these activities. At best, the MTR assessment is that this can only rise to MS by end of project.</p>
<p>Outcome 3: Business models for green energy SM</p> <p>Achievement Rating: Moderately Satisfactory (4) (MS)</p>	<p>A fair amount of preparatory work for the Alichur RESCO has been completed and some SWH at tourist facilities have been piloted. However, a major shift in project focus will be needed to meet its targets. An important shift in focus is taking place for sub-component 3A in the form of large grant from the World Bank to Pamir Energy and the project²². For sub-component 3B, the project implemented the “Energy Bus” to take RE technologies to rural consumers in a mobile learning platform. The project has cofunded 53 RE demonstration projects. The project needs to expand from tourism to all commercial and industrial sectors and do far more financial analysis. The MTR determined that by end of project many of the targets can be met.</p>

²⁰ The ratings are both retrospective and forward looking. Based on what has happened to date, this should be rated U but based on what can happen if the project reacts quickly to an opportunity with Pamir Energy, this project can be expected to meet or come close to meeting most of its targets. Refocusing and realignment of activities will allow it to reach other targets. Thus, the MTR team has rated this MU.

²¹ While the targets will be achieved by end of project in this component, the impact of those enabling frameworks are unlikely to be felt during the project. Ideally, this work would have commenced immediately upon startup and been completed within the first two years.

²² This is discussed in greater detail later in the paper.

	<p>Outcome 4: Knowledge Management and M&E</p> <p>Achievement Rating: Moderately Unsatisfactory (3) (MU)</p>	<p>As defined, the target is on track to be achieved. However, the indicator is not SMART and moving an indicator from Outcome 3 to here is more sensible. While meeting this target is achievable, a good deal of work remains.</p>
Project Implementation & Adaptive Management	<p>Achievement Rating: Moderately Unsatisfactory (MU) (3)</p>	<p>Overall Project Implementation & Adaptive Management arrangements were not found to be appropriate and conducive to mission success. Stakeholder engagement needs to be strengthened</p>
Sustainability	<p>Achievement Rating: Moderately Likely (ML)</p>	<p>There are no institutional, socio-economic, and environmental risks to sustainability if activities are implemented as recommended in the MTR. Any work done with Pamir Energy is deemed to Sustainable since this has been their pattern in over 20 years of operation. PE's tariff covers full costs of maintenance, operations, and replacement. Moreover, since the project activities are focused on private sector actors, their economic decisions are deemed a priori to be sustainable.</p> <p>Beyond the life of the project, the enabling frameworks can be expected to continue and their impact on green energy will increase as the price of electricity increases and comes closer to full cost recovery. RESCOs are unlikely to expand outside of GBAO since only Pamir Energy is in a position of being a RESCO and since over 98% of the country is electrified. Green energy suppliers will have been strengthened and the financial products for green energy expanded.</p>

1.5. SUMMARY OF CONCLUSIONS

1. The Green Energy SMEs project is very poorly designed but it is still important and relevant. There are segments of the community that will not be served by the national grid; energy efficiency remains an important answer to current and rising energy prices; and some RE applications have immediate economic viability but there are market imperfections that need to be addressed. Achieving the objective requires understanding the most important design flaw, not considered in ProDoc, which is the very low price of electricity. Additionally, other major problems in design include: a focus on PV when it is not financially viable for most consumers; the expectation that a RESCO sector run by the privately held companies would develop in five years; that small hydro was a viable private sector RESCO model (despite the years of evidence of failure in Tajikistan); and not drawing on lessons learned from similar projects in roughly similar countries.
2. Progress has been very slow and problematic. This has been due primarily to 1) very poor design; 2) COVID-19 that reduced the ability to meet in person with stakeholder and for

consultants to travel; 3) Government priorities that sometimes conflict with a focus on this project and at other times focus on only one aspect; and 4) Poor internal project management and 5) High turnover of project managers.

3. The overall rating for project implementation and adaptive management is moderately unsatisfactory (MU). The project's trajectory can be turned around with the steps listed in the following recommendation section and detailed throughout the report.
4. The present project structure and team are inadequate to meet the ambitious workload needed to meet the project objective in the shortened time, caused by the need to compensate for the considerable implementation delay in the initial years.
5. The project has not developed the necessary market demonstration and dissemination strategy that is pivotal to scaling up sustainable investments in green energy. This is critical to meeting targets and goals. The approach so far, and evident in the collaborative effort with UNDP/OFID, is to build it and the private sector will come. This means that it is simply enough to contribute the building of the Green Energy SMEs solution and without additional effort it will be replicated.
6. The project has not done the best job connecting with stakeholders and potential partners with the result that it has not benefited from their experiences, lessons learned, and opportunities for cooperation.
7. The overall progress towards results at the Project Objective level is determined to be MU, moderately unsatisfactory, and not on track to achieve outcomes with urgent attention and adaptive management.
8. Components 2, 3 and 4 require revision. It will be difficult to for Component 2 to come close to meeting its targets unless major changes are made. Even with major changes, it is highly unlikely that the target of 2,000 loans will be reached in the remaining time. Component 3B is too restrictive without any proof for being so. Component 4 does not adequately address the market dissemination or stakeholder outreach.
9. The project is important to the UNDP Country Office, the current project team and stakeholders, who believe in and are willing to actualize the project objective with project assistance.

1.6. RECOMMENDATION SUMMARY TABLE

No	Recommendations	Entity Responsible
1	Extend the project by 18 months to account for the pressures of COVID-19 and poor design, if and only if, the recommendations below are followed. Time Frame: Immediate	UNDP CO and HQ Project Steering Committee
2	Focus urgent procurement assistance to extend the ICTA contract with more in-time spent in country (consider about 100 days in country per year) and hire a new PM. Time Frame: Immediate	UNDP CO
3	Sign the Letter of Agreement (LoA) with the Ministry of Energy and Water Resources so that Outcome 1 work can begin. Time Frame: Immediate	UNDP CO

4	Conclude agreement with the MoEWR for the project's participation in the Pamir Energy World Bank grant for rural electrification. The project has an informal agreement with the MoEWR for implementation through the Pamir Energy World Bank grant that needs to be formalized. Delays here might preclude the project from participating in this catalytic work.	Project Team
5	Change the project structure with a strengthened project team (and greater involvement of the ICTA to make it more effective: The ICTA contract ²³ should increase the number of trips and time in country, and it should have the PM reporting to the ICTA to avoid the problems that have been observed of the PM not taking the ICTA's technical direction. Add a local technical advisor (either full or part-time). Time Frame: Within three months	UNDP CO
6	Develop better work planning tools including detailed life of project and annual work plans, and a strategy for how to meet the project targets. Revise and use the indicator monitoring plan as a management tool. Time Frame: (detailed life of project) Within one month of ICTA and PM being on board	Project Team
7	Develop a communications strategy and plan – demonstrate, document, and disseminate project results. Time Frame: Within two months of the detailed life of project work plan completion	Project Team
8	Drop the focus on SME RESCOs and pilots. There is no company capable of being a RESCO other than Pamir Energy. Moreover, pilots are not needed once the agreement is finalized with the MoEWR and Pamir Energy as this new arrangement will facilitate Pamir Energy to meet or come close to meeting all the requirements and targets for RESCOs. Time Frame: Part of first work plan and budget realignment	Project Team
9	Make changes in Outcome 2: (1) hold a roundtable among MFIs, GE suppliers, and Project staff to fully understand the market conditions and where they needs assistance to achieve project objectives; (2) conduct a rapid market assessment; (3) develop financial products based on 1 and 2; (4) reducing the number of participating MFIs to three; (5), opening up activities to all Green Energy products that are financially feasible, and, (6) developing a market assessment before implementing. Time Frame: Part of first work plan and budget realignment; roundtable to be held within four months and remaining activities made part of the work plan.	Project Team
10	ICTA to consider revising the design of the financial support mechanism, revise and adjust some of the project logframe indicators and aggregate a few targets. Time Frame: Within three months	Project Team
11	Consider command and control measures including demand side management in project activities since the price of electricity is so far below	Project Team

²³ Note that this may require a change in the contractual relationship of the ICTA. We use this as a term to denote someone of the current ICTA's experience and education which is much greater than that required for the PM. This term is not meant to imply any form of contractual relationship. The determination of the contractual vehicle is beyond the scope of the MTR.

	<p>actual cost. Working with MoEWR and PE, focus policy and regulations to require some EE measures or to mandate SWH under specific conditions.</p> <p>Time Frame: Make part of the discussions with MoEWR and consultants for Component 1.</p>	
11	<p>Consider teaming with OSCE on a limited mini-grid effort to expand the number of people and communities reach through RESCOs²⁴ and increase the MW served by the project while establishing a model for community-based electricity supply. Community based RESCOs are the only viable model outside of GBAO.</p> <p>Time Frame: ICTA and PM to discuss with OSCE within 6 months.</p>	Project Team

²⁴ Note that this will not be a private sector RESCO i but rather a community development organization.

2. INTRODUCTION

2.1. PURPOSE OF THE MTR AND OBJECTIVES

The MTR can be viewed as an opportunity to take stock of what has worked and what has not; whether the challenges that were present at the project's beginning remain relevant or whether new challenges have emerged. The MTR assesses the extent to which the project is meeting its goals and is likely to meet those goals by end of the project. Recommendations are made for midcourse corrections to improve the project's success and realign it. The MTR also reviews the project's strategy, and the risks to sustainability.

"The main output of the MTR will be specific recommendations for adaptive management to improve the project over the second half of its implementation."²⁵

2.2. SCOPE & METHODOLOGY

This MTR assesses the performance of the project since Project signing (July 2018) up to March 2020, referring also in some instance to its design. The MTR assesses progress with regards to:

- Project strategy: project design, results framework.
- Progress towards results (outcomes).
- Project implementation and adaptive management: management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation (M&E) systems, stakeholder engagement, social and environmental standards, reporting, communication and knowledge management; and
- Sustainability: financial, socio-economic, institutional framework and governance risks to sustainability, and environmental risks.
- It provides conclusions and recommendations derived from the findings and rates project's results according to the template provided.
- The consultants reviewed Green Energy SMEs project documents (including but not limited to the Project Document (ProDoc), Inception Report, PIRs, Operational Guidance; M&E plans; consultant reports; Board minutes and, memos and emails) prior to data collection in March in Tajikistan. Additionally, the team conducted a literature review of other relevant projects in Tajikistan and elsewhere. The review of project documents is considered a first iteration toward answering all the evaluative questions and allows the team to identify gaps in information that needed to be filled in during fieldwork. This resulted in a preliminary set of findings to be triangulated through other methods. A list of consulted documents is provided in Annex 6.7.

The consultants conducted key informant interviews (KIIs) with a range of stakeholders to provide insight and perspective to the Green Energy SME evolution, management, and operations and opportunities for collaboration. (See Annex 6.6. for a list of interviews.). The interviews explored critical success factors, challenges or barriers to success, and results, as well as gender and reporting considerations. The KIIs were semi-structured in nature, ensuring that the team was able to gather data related to the evaluation question, but allowing the flexibility to add probing questions based on respondents' answers. Furthermore, the KIIs lasted no longer than 90 minutes (including time required for translation) in order to respect respondents' other daily obligations; most were less than 60

²⁵ UNDP Green Energy SME Development Project MTR Terms of Reference.

minutes. Prior to each interview, the team identified the highest priority questions from Annex 6.1 to cover with that respondent to ensure that we collected the most pertinent data to answering the evaluation questions (considering data already collected). The consultants held as many KIIs as possible in-person but due to either COVID-19 protocols or timing, some remote KIIs through video conference when an in-person interview was not possible.

The evaluation team compiled and analysed all collected data on progress towards meeting the project targets, intermediate results achieved, and gaps reported, if any. To ensure that the information was collected and cross-checked by a variety of informants, data triangulation was used as a key tool for the verification and confirmation of the information collected. Findings are related to pertinent information through interpretative analysis. This systematic approach ensures all the findings, conclusions and recommendations are evidence based.

The MTR analytical framework is based upon:

- The Evaluation matrix: Based on an initial documentation review and following UNDP Evaluation Guidance document, an evaluation matrix was elaborated and is included in Annex 6.2. The MTR matrix is a key tool for data collection and analysis. It includes the evaluation questions as set in the ToR and details the most relevant qualitative and quantitative indicators that inform on the evaluative questions, information sources and data collection methods.
- MTR Ratings and Achievements Summary Table: This tool was used to provide specific ratings for achievements to date.
- Triangulation of information ensures the validity and accuracy of findings based on evidence.
- Participatory and gender-sensitive approach: to ensure that the perspectives of most vulnerable populations are considered in the review.

2.3. STRUCTURE OF THE MTR REPORT

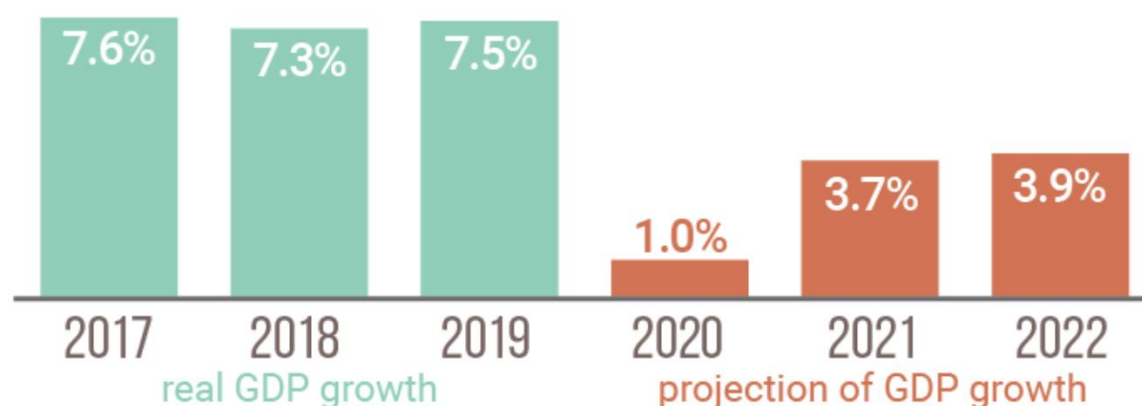
The MTR report is organized as follows. Section 1 is executive summary, which will be developed during the preparation of the final MTR report. Section 2 explains the purpose, scope, and methodology of the review, and presents the structure of the report. Section 3 provides a brief project description and context. Section 4 presents the findings of the assessment, focusing on particular on project strategy, progress towards results, project implementation and adaptive management, and sustainability. Section 5 presents the conclusions and recommendations. Finally, section 6 provides the annexes, which include the evaluation matrix, the list of consulted documents, the list of consulted stakeholders, and the key informant interview protocols.

3. PROJECT DESCRIPTION AND BACKGROUND CONTEXT

3.1. DEVELOPMENT CONTEXT

As the Soviet Union transformed and the Commonwealth of Independent States began, Tajikistan started its political reality as one the least developed former Soviet Union territories that had been dependent upon subsidies from Moscow. A lot has changed! From 2016-2019 gross domestic product (GDP) growth averaged 7.1 and by 2019 the country had reduced public debt to 44.6% of GDP²⁶. As can be seen in Figure 1, GDP growth is projected to slow through 2022; this is due in large part to COVID-19 as both exports and remittances are impacted.

FIGURE 1 TAJIKISTAN'S MACRO-ECONOMIC OUTLOOK²⁷



Despite Tajikistan's impressive recent economic performance, major challenges remain. It has the lowest per capita GDP in the region and 27% of the population still lives below the poverty rate. It is still heavily dependent upon foreign remittances for about 28.5% of GDP²⁸. While almost 99.3% of the population have access to some electricity, consumption remains very low for the country. Per capita consumption was 1,499 kWh in 2014. Yet, in 2000, Tajikistan's per capita electricity consumption was second highest in the Central Asian countries. This aggregate statistic tells only part of the picture. This situation becomes more worrisome when the division between urban and rural consumption is considered and as well as the correlation between economic growth and per capita electricity consumption. In 2008, the last year that data is readily available, rural Tajiks consumed about one-quarter the kWh that urban Tajiks consumed. Much of the country suffers from energy poverty. "The lack of reliable energy services leads directly to severe lapses in school attendance and has caused multiple adverse and critical effects on the economy, health, and environment of the country."²⁹

3.2. PROJECT DESCRIPTION AND STRATEGY

The project's strategic objective is to facilitate the transformation of Tajikistan's energy sector, in particular the emergence of independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population.³⁰ The project was designed to

²⁶ ADB 2020. Proposed Grants and Technical Assistance Grant Republic of Tajikistan: Power Sector Development Program, Report and Recommendation of the President to the Board of Directors. Manila.

²⁷ <https://www.worldbank.org/en/news/infographic/2020/04/27/tajikistan-macro-poverty-outlook-spring-2020>

²⁸ <https://databank.worldbank.org/reports.aspx?source=2&series=BX.TRF.PWKR.DT.GD.ZS&country=>

²⁹ UNDP 2011. Energy Efficiency Master Plan for Tajikistan. Dushanbe.

³⁰ Page 1 of the ProDoc.

address an important development challenge in Tajikistan: the need to provide affordable energy to rural areas. The project attempts to catalyse the process by creating the conditions for the emergence and development of energy entrepreneurs that will provide affordable energy services to rural area.

This objective is planned to be achieved through the implementation of the following three inter-linked (Components 1,2,3) and a cross-cutting components (Component 4) dealing with **policy derisking** (1), **financial derisking** (2), **business models** (3), and **knowledge-related gaps** (4):

Component 1. Enabling policy and regulatory framework and capacity development for GE SMEs.

Component 1 addresses policy barriers faced by Green Energy enterprises/SMEs by supporting the development and implementation of enabling policy framework. Specifically, the project provides technical assistance to the Ministry of Energy and Water Resources and the Inter-Institutional Working Group (IIWG) consisting of relevant governmental agencies to support the operationalization of key provisions of the Law on Energy Saving and Energy Efficiency. It was anticipated that the Green Energy project would build upon the GIZ enabling framework efforts in building efficiency. This component will be handled through the Ministry of Energy and Water Resources and includes the following activities:

- Activity 1.1.1: Conduct detailed policy and regulatory gap analysis, benchmarking and identification of priority policy and regulatory measures, such as building energy codes, public procurement rules, etc.
- Activity 1.1.2: Conduct stakeholder consultations, including both relevant public authorities and business representatives regarding the scope and modalities of proposed policy and regulatory changes.
- Activity 1.1.3: Revise and/or prepare new regulatory documents.
- Activity 1.1.4: Present and facilitate adoption of the developed regulatory documents.
- Activity 1.2.1: Prepare a package of fiscal, custom and other incentives related to the production and import of EE/RE technologies. Provide training to relevant public authorities (custom and tax officers) to help them understand and implement proposed incentives.: Provide advisory support to the Ministry of Energy and Water regarding operationalization of the EE/RE Fund and the design of its programming strategy
- Activity 1.2.2: Provide training to relevant public authorities (custom and tax officers) to help them understand and implement proposed incentives.
- Activity 1.2.3: Provide advisory support to the Ministry of Energy and Water regarding operationalization of the EE/RE Fund and the design of its programming strategy.
- Activity 1.3.1: Review relevant international standards for PV and SWH.
- Activity 1.3.2: Select appropriate standards for Tajikistan and develop a roadmap for their introduction.
- Activity 1.3.3: Elaborate institutional set-up for MVE.
- Activity 1.3.4: Develop and parameterize the measurement and verification tool for compliance check.
- Activity 1.3.5: Provide training to entities in charge of MVE.

Component 2. Access to finance for GE SMEs and/or service users. This is focused on relatively small applications such as PV, SWH and potentially EE applications. By its nature, MFI's will not be lending for small hydros because of the large investment cost.

Under the Component 2 in partnership with local and international financial institutions, the project expects to facilitate access to GE finance at affordable terms for households, SMEs and other end-users wishing to invest in EE/RE products and/or services. Technical assistance will be provided to partner MFIs and other local finance organizations to develop and promote standard loan products. GEF investment support will be provided in the form of an interest rate subsidy. It was anticipated that the

project would work with and benefit from the lending done under the ADB Access to Energy Project and the EBRD Climadapt projects.

Activities in this component are:

- Activity 2.1.1: Prepare a comprehensive GE market assessment.
- Activity 2.1.2: Competitively select partner MFIs and banks.
- Activity 2.1.3: Develop and introduce “green loan” products by selected MFIs with a particular emphasis on ensuring and promoting equal access to such products for women and women-headed SMEs.
- Activity 2.1.4: Develop and implement marketing campaign for new green loan products.
- Activity 2.2.1: Conduct a capacity gap assessment and design of training programme for MFIs.
- Activity 2.2.2: Deliver training and provide technical advisory (on-the-job) training to partner MFIs.
- Activity 2.2.3: Develop monitoring tools for tracking performance of green loans.
- Activity 2.2.4: Collect and analyze information on green loan performance

Component 3. Business models for GE SMEs. Deals primarily with Solar PV RESCOs and SWH at tourist facilities through activities designed.

The Component 3 purports to focus on the supply chain to develop and improve EE/RE products and services and bring them to the market, including through the provision of targeted investment support to innovative and scalable business models for EE/RE products/service delivery in off-grid rural areas. The component directly addresses the development of rural energy entrepreneurs by piloting a business model (RESCO) with a private sector entity. The pilot project will provide electricity through a solar PV mini grid supplying about 3KW per household to 250 households (subject to full feasibility analysis). The project provides technical assistance and helps to defray the financial costs by covering design costs and subsidizing 50% of the capital costs for 1 or 2 pilot projects. The component also provides technical assistance to help the tourism sector and other SMEs adopt solar water heaters, significantly reducing their costs.

Sub-components and activities in this component are:

Sub-Component 3A: RESCO: solar energy for off-grid communities. This sub-component is designed to address the creation of a RESCO business model, a pilot demonstration RESCO with Pamir Energy, and scaling-up of the RESCO model.

- Activity 3.1.1: Undertake community energy needs assessment, including consult with beneficiaries and local stakeholders in GBAO.
- Activity 3.1.2: Conduct technical design and cost-benefit analysis, including the determination and justification of the required subsidy level (if any).
- Activity 3.1.3: Prepare RESCO model design: legal and contractual arrangement, and training on RESCO model implementation to relevant stakeholders.
- Activity 3.1.4: Project implementation, including preparation of technical specification, construction works, and technical and advisory support for implementation of the RESCO model.
- Activity 3.1.5: Support replication of RESCO pilot in other off-grid communities in GBAO (with Pamir Energy) and other off-grid locations across Tajikistan.

Sub-Component 3B: Facilitating investment in SWH by tourism facilities and other SMEs

- Activity 3.2.1: Identify client base through SWH market demand assessment.
- Activity 3.2.2: Conduct a call for proposal to select partner GE SMEs and suppliers of SWH equipment and establish a register of qualified SWH suppliers.

- Activity 3.2.3: Provide advisory services to potential clients/investors in SWH
- Activity 3.2.4: Deal facilitation
- Activity 3.2.5: Facilitate implementation and monitoring of SWH projects by interested clients.
- Activity 3.3.1: Organize thematic and specialized exhibitions on GE in partnership with existing information and educational centers, MFIs and SMEs.
- Activity 3.3.2: Design and publish relevant awareness and promotional materials.
- Activity 3.3.3: Implement nationwide marketing and awareness campaign about solar technologies and its benefits for households and businesses.

Component 4. Knowledge Management and Monitoring and Evaluation (M&E).

Under the Component 4, knowledge gaps are addressed on both the supply and demand side. Acknowledging that lack of credible information is often a major market barrier, the project seeks to address this by collecting, analysing, and disseminating information about EE/RE technologies, costs and benefits.

- Activity 4.1.1: Develop appropriate methodology and assessment of achieved GHG emissions, as well as socio-economic benefits (including for women).
- Activity 4.1.2: Conduct assessment of environmental and socio-economic benefits of pilot projects in line with developed methodology.
- Activity 4.1.3: Conduct a final national conference to present and disseminate project results.
- Activity 4.2.1: Undertake independent mid-term review and terminal evaluation
- Activity 4.2.2: Prepare and disseminate lessons learned report.

3.3. PROJECT IMPLEMENTATION ARRANGEMENTS

The project is implemented for a period of 5 years starting from August 15, 2018 and whereas this project is implemented under the Direct Implementation Modality (UNDP as Implementing Partner), the Ministry of Energy and Water Resources (MoEWR) is the lead national counterpart. The project is supported by a Project Steering Committee (SC) for guidance, comprised of the MoEWR (Chair), the Committee on Environmental Protection (CEP), SUE "Scientific research institute on construction and architecture, the Ministry of Finance (MOF), and the UNDP.

The project SC oversees the performance of the project in delivering its expected outputs and to ensure that the project is moving in the right strategic direction to achieve its ultimate objective and impact as stated in the Project Document (ProDoc). To ensure that the SC is fully informed in their decision making, it is necessary that the project team present project progress, proposed work plan and the approach to implement the project, highlighting specific risk issues, if any, during each of the project SC meetings. The SC has met thrice since project start with the last meeting before the MTR being in late December 2020. The SC was presented with minor changes to the project for consideration and updated on progress and challenges. It is the PM's responsibility to keep the SC aware of project challenges and risks and to present the results of the PIR. The first PIR was completed in 2020 well before the third SC meeting on December 29, 2020. **The PM made no mention of the PIR nor made the SC aware of the risks to successful project completion.**

Since the project is implemented under the DIM modality, there is a full-time Project Management Unit (PMU) for the project based in the UNDP Tajikistan Programme office. The PMU is responsible for overall coordination, implementation and delivery of project outputs in a timely and effective manner. The PMU is comprised of a full-time Project Manager for operational direction, implementation, and management of the project; a full-time Project Administrative / Financial Assistant for project administration and day-to-day support to project management; and a part-time Chief Technical Advisor

(CTA). The CTA provides a support and advisory role to the project “in consultation with the project manager³¹”.

3.4. PROJECT TIMING AND MILESTONES

Project Approved for Implementation³²: 23rd January 2018

ProDoc Signing:	August 15, 2018
Project Manager Hired:	October 2018
Inception Workshop:	December 2018
Admin/Financial Assistant Hired:	February 2019
First Steering Committee Meeting	February 2019
Chief Technical Advisor Hired:	April 2019
Project Manager Resigns:	April 2019
Project Manager Hired:	September 2019
Second Steering Committee Meeting	January 2020
Mid Term Review Planned:	End of 2020
Project Manager Resigns:	December 2020
Mid Term Review Actual:	First Quarter of 2021
Closing Date (Original):	17 th July 2023

3.5. MAIN STAKEHOLDERS

The project’s main stakeholders are listed below.

Type of Stakeholder	Name of Stakeholder	Relevance to Project, Role in Preparation, and Role in Implementation
Government	Ministry of Energy and Water Resources (MoEWR)	MoEWR is the lead national counterpart for the Project. MoEWR will oversee all project activities, will co-chair the Steering Committee (Project Board), and will play a leading role in Component 1 and Component 3 (RESCO model design and implementation).
	Committee on Environmental Protection (CEP)	As the GEF Operational Focal Point and UNFCCC Focal point, CEP will ensure project alignment with national climate change goals and priorities. CEP will also be involved in project evaluation, at mid-term and final, and will provide inputs into the design and application of GHG emission reduction monitoring methodology (under Component 4).
	SUE “Scientific research institute on construction and architecture” at the Committee of Architecture and Construction of the Government of Tajikistan	The Institute will be a key project partner for implementation of Activity 1.1.3 (Revising and preparing new regulatory documents to introduce requirements for minimum energy performance, mandatory installation of RE systems in new buildings).

³¹ Some problems arose because of the PM’s interpretation of this and they are discussed in more detail in Section 4, Findings.

³² GEF CEO Endorsement

	Ministry of Finance	Ministry of Finance is the national agency overseeing the financial sector, including MFIs and ADB Green Finance Facility; it will be consulted and involved in implementation of Component 2.
Private sector / RESCO	Pamir Energy	<p>Pamir Energy has been selected as a partner for implementing the pilot RESCO under Component 3 in line with the concession agreement signed between Pamir Energy and the Government in 2002. Under the agreement, Pamir Energy operates all electricity generation, transmission, and distribution facilities in GBAO for a 25-year period. Concession agreement puts responsibility on Pamir Energy to provide all³³ population of GBAO with access to electricity.</p> <p>The World Bank has provided an approximately \$30 million grant to Pamir Energy a large part of which is for off-grid electrification GBAO. Assistance is needed from the Green Energy project to fill a void and help identify communities and provide other assistance.</p>
Suppliers / Installers	Korgohi Mashinasozi GE Technologies Homsol Sistemavtomatika	These GE SMEs are active on the local market as suppliers, installers and operators of various small-scale, primarily solar but also various EE technologies. All have been consulted during Project's design and have provided essential inputs for the cost-benefit analysis and market assessment. All expressed interest to participate in the Project, as envisaged under Component 3. Some expressed interest in learning about bulk purchasing to lower costs and all saw limited potential for targeted RE applications at current prices and tariffs but strong potential for EE.
Finance	MLF Imon First MFI Arvand Humo	These are leading MFIs in Tajikistan, and partner with IFIs such as the ADB donors such as EBRD. They were consulted during Project's design. They will also apply to be an MFI partner for the GEF Project and are interested in collaboration under Component 2. Their past experiences with ADB, EBRD and self-financing is that there is little demand for solar PV and that EE applications hold the greatest potential.
NGOs	GERES ACTED CESVI Welthungerhilfe	These NGOs are active in conducting Green Energy SMEs projects and have a solid understanding of the challenges and opportunities. They have pioneered solar water pumping, solar drying and cooling, and EE applications for greenhouses. They recognize the

³³ This is a key point that is discussed in greater detail in Section 4, Findings.

		low cost of energy, the lack of standards, and the high cost of finance as major constraints to expanded green energy penetration.
--	--	--

4. FINDINGS

4.1. PROJECT STRATEGY

4.1.1. PROJECT DESIGN

The project design is discussed in detail Section 3.2 above. The project plans to overcome demand and supply barriers through (1) enabling framework improvements, (2) increased finance opportunities, (3) Business models and pilots, and (4) Knowledge Management. To be sure, important development objectives in Tajikistan are increasing energy access, improving energy security, reducing GHG emissions, and efficient resource use. **“Identify, support and promote scalable, private sector-led business models for provision of affordable and sustainable energy products and services for Tajikistan’s rural population”** is a viable goal. Laudable as the goal may be, the design was naïve and flawed. The project’s Theory of Change is illustrated in Figure 2.

GENERAL DESIGN FLAWS

This section discusses general design flaws and then as they are manifested in the components, they will be addressed in more detail in those sections. The design fails to consider the initial conditions of Tajikistan³⁴ which should be reflected in the objective level assumptions. It is a country that has little renewable energy business, lacks the relevant enabling frameworks, **electricity prices are well below cost recovery**, and is mostly grid connected. It is unrealistic to think that in five years the project “can facilitate the transformation of Tajikistan’s energy sector, in particular the emergence of independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population” and reach the targets that it established.

The design does not acknowledge the single major barrier to green energy – the very low price of electricity. With the price of electricity at such low levels, green energy investments that would make sense at full cost recovery tariffs, will not take place for those consumers that are grid connected. Experience from other countries indicates that in this kind of circumstance, customers may invest in energy efficiency³⁵ but will invest in renewable energy supply to a much smaller degree. Failure to consider this barrier impacts all components.

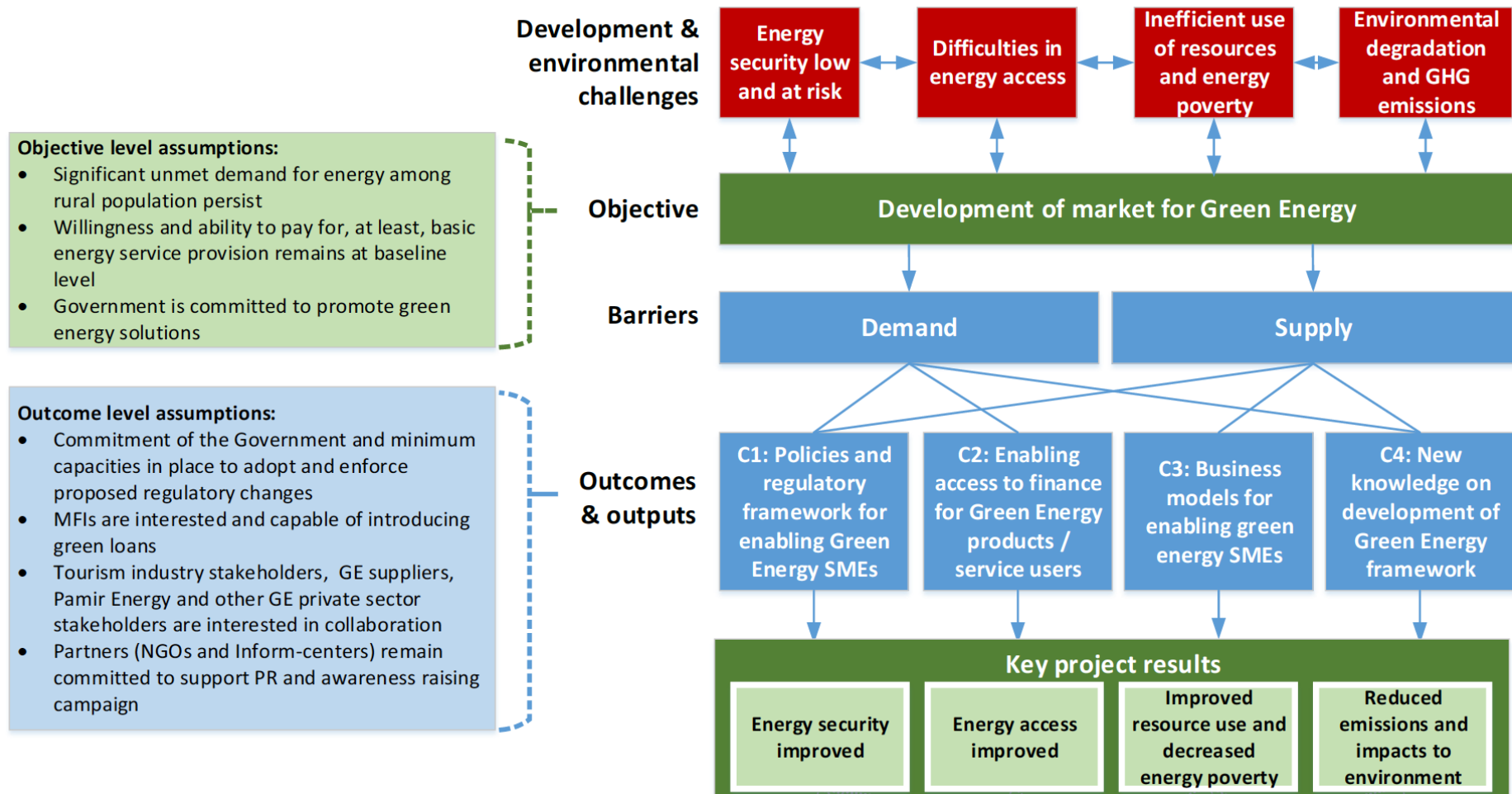
“Willingness and ability to pay for, at least, basic energy service provision remains at baseline levels” is a barrier but coupled with the very low price of electricity means that some form of subsidization would be necessary for consumers to invest in green energy. The design attempts to overcome this barrier by marginally lowering cost through lowering the interest rate (C2) or marginally lowering cost by reducing taxes and duties (C1). But this will not significantly impact the ability to pay. The design does not recognize that affordability is linked to the cost of alternatives such as the very low price of grid electricity, the cost of firewood or coal, and consumer income. The failure to explicitly recognize this means that the design has focused in the wrong areas. For example, while the design allows for energy efficiency, the activities explicitly focus on RE. Yet, electrified consumer demand is far greater for EE than RE.

There is the very optimistic assumption that “Government is committed to promote green energy solutions”. It is committed if that does not entail subsidies. Failure to acknowledge this means that the project is promoting (C3) business models for RESCOs that will work on very limited circumstances.

³⁴ The MTR was constantly made aware that the Tajikistan energy situation is now radically different than when the project was designed. To be sure, load shedding is not as common and much more of the country is connected to the grid. However, the design flaws highlighted here are relevant regardless of the energy supply situation.

³⁵ There is an argument against investing in EE as well in that for any individual saving energy there is no guarantee that the saved energy will be available for their own consumption. EE investments take place for comfort or for financial savings. With the price of electricity at very lower levels, fewer EE investments make financial sense.

FIGURE 2 THEORY OF CHANGE



Moreover, the assumptions do not differentiate between rural population with grid access and those without. This is important because the “unmet demand” for grid connected rural customers is quite different than that of rural populations without electricity access. Grid connected consumers have generally higher incomes and more alternatives to green energy than consumers without grid access. Unmet demand for connected consumers would not be satisfied by green energy in the same way as it would be for rural customers that are not connected or could not be expected to be connected to the grid. Coupled with low electricity prices, grid connected rural customers would not normally opt for RE supply in large numbers. Typical solutions for on-grid consumers like those in Tajikistan have been charging batteries when there is abundant supply and discharging them when there is not. The main solutions proposed for these consumers by the project are solar PV and Solar water heaters. These are significantly more expensive.

Off-grid rural consumers tend to be the poorest members of Tajik society and they did not have the same unmet demands for energy as rural on-grid customers. The solution proposed for these consumers is the private sector RESCO model. A review of the experience from similar countries might have yielded a different solution: solar home systems, advanced cookstoves, etc..

The project looked at other country experience such as China, Fiji, Germany, India, Korea, the Philippines, Thailand, and Tunisia. The comparisons are not relevant. For example, all the comparison countries have per capita GDP that are multiples of Tajikistan ranging from India with twice the per capita GDP to Germany with 52 times; the economies are more developed. All the comparison countries have population densities which exceed that of Tajikistan except Fiji. These higher population densities reduce per unit costs. The climatic conditions of the Philippines, Egypt, India³⁶, Thailand, and Tunisia are quite different from Tajikistan and that impacts technology choice and energy use. Also, the comparison looked at financing arrangements without understanding the history and institutional structure. For example, most of these countries have a much longer history in green energy than Tajikistan. Many have IFC, WB, ADB and donor programs focused on promoting ESCOs, RESCOs, clean energy technology and several have large dedicated national funding agencies such as India’s Renewable Energy Development Agency. Surrounding countries and Nepal and Bhutan would have been better as comparisons. Finally, the designers failed to understand how long it took, China, Egypt, India, and the Philippines to get where they are and the hundreds of millions of dollars that donors and IFIs provided to get there. The failure to incorporate lessons learned from these countries means that the project has not benefited from the methods these countries employed for success or learned lessons from their mistakes.

Finally, there is no coherent strategy other than the high-level Theory of Change and broad activity descriptions. There is nothing that concretely links how pilots and demonstrations will scale up to reach targets. The design treats dissemination as an end of project activity. A successful dissemination strategy needs to be developed at the beginning of an activity or component. It needs to determine the target audience and what information that audience needs to make decisions about green energy. This needs to be incorporated into activities so that information is correctly collected and then presented. For example, the cofunded OFID projects did not collect any information on energy expenses and use before the installation of RE equipment. It can’t then demonstrate the economics of work and thus convince other consumers to purchase.

COMPONENT 1 DESIGN FLAWS

Component 1 begins with the assumption that “Framework laws on EE and RE exist and provide a good basis for EE and RE market development. However, their systematic implementation is lacking, in particular the development of a number of important by-laws and regulations.” Since the very low price of electricity is not acknowledged as a barrier, this means that work in this component only addresses marginal improvements for EE and RE. While the project may not have been able to tackle

³⁶ Small parts of India would be relevant but entire country experience was considered and this skews the results to areas that are not comparison points for Tajikistan.

subsidized electricity prices head-on, it might have done some analytical work showing the Government what these subsidies were costing and how the overall economic impact of electricity subsidies could be lessened with targeted subsidization for green energy.

COMPONENT 2 DESIGN FLAWS

Component Two is designed to address “Low ability to pay and unattractive financing terms for GE “ and it specifically purports to address high upfront costs and high (28%) interest rates. It provides technical assistance to design new financial products and provides an incentive to lower interest rates. The important question is does this adequately address the low ability to pay and make unattractive financing sufficiently attractive. The answer is not qualitative. The important questions are at what interest rate is green energy attractive given current prices and ability pay. At the very basic level, this analysis should have been performed to confirm that the project’s assistance in this component would overcome these barriers.

The design failed to use simple back-of-the-envelope calculations to determine the suitability of different green energy applications to different customers. It did perform this for residential SWH but not for commercial or industrial customers. It determined that the payback period of 5 years but that the annual payment was above consumers ability to pay unless the interest rate was below 20 percent. If that were the case, then next logical steps are to ask if a five-year payback period is acceptable to the project target audience and is project assistance sufficient to bring MFI rates below 20 percent.

The project cofunded 17 Solar PV and SWH projects with OFID including combined systems at a school, SWH at tourist facilities and businesses, and social institutions such as medical and women’s centers.

The MTR calculations based on information from participants in the OFID project, MFI and equipment suppliers indicate that for most social customers, and many commercial customers in rural areas, the payback period for RE options is greater than five years assuming no interest³⁷. This is confirmed by MFIs and RE suppliers in the KIIs. It is simply beyond the capability of most rural energy consumers to be able to afford PV and SWH under these circumstances. The analysis could have been done during design so that time was saved in implementation rather than trying to identify likely technologies.

Who then are the target audiences for PV and SWH? What is the rate of interest that they project can influence? What green energy products are likely to be demanded when “lower interest rate loans” are available?

COMPONENT 3 DESIGN FLAWS

Component three is designed to address the barriers of “Under-developed supply chain for EE/RE products and services” and “Companies engaged in GE products supply are mainly SMEs with limited own capital and capacities.” It proposes to address this through business models and pilots.

Subcomponent 3A is “*RESCO: solar energy for off-grid communities*”³⁸. The design assumes then that RESCOs are the most appropriate way of addressing off-grid electricity services and it ignores some of the most important challenges facing those RESCOs among which are:

- a. Other than Pamir Energy, there are no RESCOs in Tajikistan. Creating a RESCO requires more than a business model. It requires a large enough balance sheet to secure lending, and this usually only comes with years of experience. It also requires a risk tolerance that the Green Energy suppliers and installers that were interviewed do not exhibit. Even the cost of a small mini-grid is beyond the capability of existing RE companies in the country.
- b. The consumers that are not electrified are the among the poorest in Tajikistan. They expect to pay prices equal to grid connected customers and often want to wait for grid extension because

³⁷ This is based on the size and cost of OFID investments.

³⁸ Paragraph 14 of the ProDoc.

of greater electricity supply stability. The project acknowledges that “public subsidy is required to make such a project viable and sustainable for a private company³⁹”. However, other than the pilot project no other mention is made of how the project will address this, particularly when the Government is not favorable to subsidizing off-grid consumers.

- c. Only Pamir Energy may legally provide electricity in GBAO. This is important since the project was planning on using the PE experience to spur new RESCOs in GBAO.
- d. The design only considered subsidies for the pilot RESCO. Pamir Energy still requires capital subsidies for investment in expansion or serving new customers and the project did not address how subsidies will be provided for new RESCOs⁴⁰ other than the first pilot. In fact, without any guarantee mechanism, it will not be possible for SME RESCOs to develop at this time.
- e. Experience has shown that in very low-income areas like GBAO and Khatlon mini or micro-grids are most often unsustainable unless the grid is anchored by a large income generating activity. Local residential customers, while benefiting, benefit in ways that do not usually increase immediate cash flow unless the project tries to introduce those activities or has an anchor customer.
- f. The amount of time for any RESCO other than PE to identify appropriate off-grid areas, conduct prefeasibility and feasibility studies, negotiate agreements, obtain subsidies and commitments for funding is greater than the life of the project.

There are inconsistencies and design flaws in the ProDoc in this context. Page 10, paragraph 14 states that the component is solar energy for off-grid communities. Then there is a target for small hydro from Component 3 based on Activity 3.1.5 which is to support replication of the business model – a business model which is solar only⁴¹. Aside from the technical differences and resource availability issues, Tajikistan has a long history of failed small hydro projects. The ProDoc does not address these problems or propose solutions. There should be no expectation that the project can scale-up small hydro mini-grids from its experience in solar PV.

4.1.2. RESULTS FRAMEWORK/LOGFRAME

A critical analysis of the project results framework focusing on how SMART (Specific, Measurable, Achievable, Relevant, Time-bound) the indicators and targets was conducted. Suggestions on revision are provided as required. Table 1 presents the results of this analysis.

TABLE 1 SMART ANALYSIS

Indicator # / Explanation	Baseline level	Mid-term target	End-of- project target	Smart Analysis				
				S	M	A	R	T ⁴²
1. [GEF CCM Tracking Tool Indicator]: Volume of investment mobilized and leveraged for low GHG emission developments (mln	n/a	US 10million	US \$ 30 Million	Y	Y	Y	Y	N

³⁹ Paragraph 14 of the ProDoc.

⁴⁰ According to conversations with PE, the average PE tariff covers all future costs including maintenance and replacement. The tariff does not cover system expansion. Thus, it is sustainable and the RESCO off-grid customers, because of their low income, are cross subsidized by PE on-grid customers

⁴¹ The ProDoc assumes that the pilot project will be a solar hybrid mix but this ignores the experience of small hydros, the Alichur resource potential and that an earlier UNDP study (Tajikistan: Accelerating progress towards to MDGs) recommends solar-wind hybrids. In fact, studies done on resource availability in Alichur have not suggested hydro. In 2009, the Mountain Societies Development Support Program installed two 300 W wind turbines..

⁴² The project did not use the indicator monitoring plan and the M&E plan in the produc is quite general. This is why there is a green and N designation. The project needs to complete this as soon as possible.

US\$)									
2. Extent of change in modern energy coverage by users	No change	4,000 new users of RE products services	Over 17,000 new users of RE products/services	Y	Y	?	Y	N	
3. tCO2eq, direct emissions reductions (which are attributable to the project-facilitated investments made during the project’s supervised implementation period, totaled over the respective lifetime of the investments)	n/a	15,000	53,000	Y	Y	Y	Y	N	
4. Increase in installed RE capacity per technology (MW for electricity and m² for SWH)	n/A		0.350 MW solar PV; .400 MW small hydro; & 5,000 m²	Y	Y	Y	Y	N	
5. Lifetime RE production per technology (MWh)	n/a		15,330 MWh solar PV 43,800 MWh Small Hydro	Y	Y	Y	Y	N	
Component 1: Enabling policy and regulatory framework and capacity development for GE SMEs									
6. Status of by-laws enabling implementation of the Energy Efficiency Law	None existing	Draft sent to decision-makers	Final version adopted	Y	Y	Y	Y	N	
7. Number of officials trained (including number of women)	0	20 (5)	50 (15)	Y	Y	Y	Y	N	
8. Additional decentralized RE-based capacity enabled by the designed financial incentives scheme, MWs	None existing	0.35 MW	2.0 MW	Y	Y	Y	Y	N	
9. Status of system of compliance checks and enforcement of performance standard for selected EE/RE products	None existing	Draft developed and sent to decision-makers	Final version approved by decision-makers	Y	Y	Y	Y	N	
Component/ Outcome 2. Access to finance for green energy SMEs and/or energy service users									
10. Number and volume (US\$) of green loans approved for SWH and other targeted EE/RE products (including those for women-led SMEs)	0	500 loans US\$ 650,000 (at least 25 loans to women-led SMEs)	2,000 loans US\$ 2,600,00 (at least 100 loans to women-led SMEs)	Y	Y	N	Y	N	

11. Number of beneficiaries using RE (including number of women)	0	4,000 (2,500)	16,000 (10,000)	Y	Y	N	N	N
Component/ Outcome 3. Business models for green energy SME								
12. Installed new RE-power generation capacity based on RESCO model, MW	0	0.35 MW	0.75 MW	Y	Y	Y	Y	N
13. Number of SWH systems facilitated by the project (in tourism facilities)	0	20	100	Y	Y	?	Y	N
14. Number of people with improved access to energy (including percentage of women)	0	4,000 (60% women)	17,867 (60% women)	Y	Y	?	Y	N
15. Number of people accessed by marketing and awareness raising campaign (including percentage of women)	N/a	1,000,000 (60% women)	3,000,000 (60% women)	N	Y	?	N	N
Component/ Outcome 4 Knowledge Management and M&E								
16. Number of organizations receiving results of project, including GHG emissions and socio- economic benefits (targeted number to be established during project inception)	None	None	100% of identified participating stakeholder organizations	N	Y	Y	N	N
SMART: Specific, Measurable, Achievable, Relevant, Time-Bound Green: SMART criteria compliant (Y); Yellow: questionably compliant with SMART criteria (?); Red: not compliant with SMART criteria (N).								

The project's objectives and outcomes or components are, for the most part, clear, practical, and feasible within its time frame **provided that some activities are changed, others are focused and implementation proceeds at a faster pace.**

The logframe has several issues that need to be recognized. The monitoring plan needs greater definition and clarity⁴³. Three indicators had no midterm targets even though there should have been results by midterm⁴⁴.

Indicators 2 and 3 appears to be difficult to reach the full target as designed and implemented. If the project acts quickly to take advantage of a recent World Bank grant to PE (See text box below), then the project's assistance can be pivotal to providing approximately 12,000 new customers with power and to reducing emissions. However, there is insufficient detail in the ProDoc, or the annual work plans to see how the project will reach another 5,000 persons and the project has not developed a strategy either. Also, change the frequency to quarterly since the project is the data source and review of more frequent data will help keep the project on track to deliver.

Indicator 4 is for RE and SWH but the Data source/CollectionMethods is only for RE. This is needs to be changed to include SWH.

⁴³ When current and former project staff were asked about the monitoring plan, they were unaware of it; it exists in the ProDoc as Annex B, Mandatory Annexes. This indicates that it is was not being used as a management tool.

⁴⁴ Since midterm has passed no recommendations on midterm targets will be made.

Pamir Energy and the World Bank (referred to herein as the PE/WB Activity) is a \$25.2 million grant. A large portion of this is for the construction of 36 microgrids in GBAO to reach approximately 12,000 unserved people. It is informally agreed with the MoEWR, WB and PE that the Green Energy SMEs project will provide funding to the MoEWR to conduct the studies necessary for the renewable energy only minigrids. Once the Project selects villages for investment, then the World Bank will finance those mini-grids that are owned, operated and maintained by Pamir Energy.

Indicator #7 in outcome 1, the number of officials trained, needs to be qualified by the number training in green energy enabling frameworks. While the project may wish to train to support work in other outcomes, the purpose of training here is to support the development and enforcement of green energy enablers.

In outcome 2, several indicators have issues. Indicator #10 measures loan activity EE and RE. However, so far, the project has focused on PV and SWH. The two financial studies have focused on PV and SWH and Component 3B is focused on SWH at tourism facilities. Discussions with MFIs and green energy suppliers suggest that as currently designed this target is unachievable. This means that the project needs to explicitly acknowledge other RE (such as solar water pumps) and EE measures. These will undoubtedly fall out of the roundtable discussion with MFIs and GE suppliers recommended later in the report⁴⁵. Also, change the frequency to quarterly since the MFI is the data source and review of more frequent data will help keep the project on track to deliver.

Indicator #11 is “Number of beneficiaries using RE”. To meet the targets for this indicator, the project would need to focus all its activity in RE rather than taking advantage of consumer demand/preference; the least cost option might be EE for some consumers rather than SWH. Moreover, the first activity in this output is to conduct a comprehensive market assessment of GE, not RE. **Thus, to enable the project to exploit the least cost green solutions and because the project can and is encouraged to work in all EE/RE areas, indicator #11 should be changed to “Number of beneficiaries using EE/RE”.** Also, the monitoring plan cites the following risk “Risk: MFIs may not have enough capacities to monitor project implementation by beneficiaries, in particular technical aspect”. This is not the case because it will be based on approved loans that are active, the loan application once approved and used by the customer time the average size (as per the methodology determined by the recommended consultant.) Finally, change the frequency to quarterly since the MFI is the data source and review of more frequent data will help keep the project on track to deliver.

In outcome 3, indicators #13, #14, and #15 raise concerns about attainability. Indicator #13 has a target of 100 SWH in tourism facilities. There is nothing to suggest that there are 100 interested tourism facilities and MFIs and RE equipment suppliers did not indicate that there was strong demand in this sector. **The indicator needs to be changed to 100 SWH, irrespective of end-user.** Also, change the frequency to quarterly since the project is the data source and review of more frequent data will help keep the project on track to deliver.

Indicator #14 is the number of people with improved access to energy. What is improved access? Is it the number of unserved people that get some level of service or does it include people where the quality or amount of service improves as a result of the project? **More definition around this indicator,**

⁴⁵ The ProDoc focused on Solar PV and SWH without substantial justification. The MTR discussions with stakeholders and research indicates that the market for these two is quite limited. The MTR recommendations discuss how different technologies can be successfully targeted.

how it is measured and its sources, is needed in the indicator monitoring plan⁴⁶. Also, change the frequency to quarterly since the project is the data source and review of more frequent data will help keep the project on track to deliver.

Indicator #15 is the number of people accessed through marketing and awareness. This is too large to be in Outcome 3 which is focused on GE business models. ***Rather indicator #14 should be moved to Outcome 4 which focuses on marketing and awareness raising for all aspects of the project.*** Also, change the frequency to quarterly since the project is the data source and review of more frequent data will help keep the project on track to deliver.

Indicator #15 is too vague and does not get at what the outcome is intended. Additionally, while it was claimed that the baseline would be established during the inception phase it was not. ***It is suggested that indicator 15 be moved to Outcome 4 and that indicator 16 be dropped.***

4.2. PROGRESS TOWARDS RESULTS

Progress thus far has been hampered by some factors which, for the project team, were unavoidable but regrettable such as COVID-19 and the inability for consultants to travel, hold face-to-face meetings for some time, poor project design (detailed in section 4.1.1), and the lack of government focus because of COVID-19 and the government's overriding focus on the Alichur solar PV activity through this project. Progress has also been hampered by avoidable factors such as a lack of proper management, project team turnover and insufficient stakeholder outreach that are detailed in section 4.2.1.

Donors and IFIs have recognized that COVID has had and may continue to have an impact on projects activities. The impact of COVID on project performance in 2020 is highlighted below. However, the potential impact may be felt much longer if economic activity continues to dampen foreign remittances that are so important to rural economic activity.

The Impact of COVID-19

The global COVID19 pandemic affected the project implementation causing delays in the implementation of the project interventions associated with community engagement and travel related restrictions. It's been difficult to adapt to this new reality by shifting these interventions into online mode, due to limited internet connectivity across the country, limited capacities of project stakeholders (including government institutions as well as communities) in utilizing web-based communication tools and approaches in their routine and, in some instances, government stakeholders and experts falling sick. Many relevant development projects (e.g. Green Economy Financing Facility project financed by ADB and KOICA) were temporarily shut down and it was difficult to maintain communication with those projects, especially those led by expatriate staff, as there were no activities to coordinate or implement in joint manner.

SUMMARY OF PROJECT ACTIVITIES TO DATE.

Component 1. Creation of enabling policy and regulatory framework and capacity development for GE SMEs:

- Comprehensive "Country Assessment on GE and SMEs development" concluded in October

⁴⁶ This activity concerns RE/EE technologies installed by businesses (SMEs). In the case of a hotel, for example, the demand for hot water is derived from the number of occupants per year. Designing loan applications to include and report this information will help the project track progress and it is important in determining the financials of the investment. The alternative is

2019⁴⁷. Assessment included comprehensive review and identification of gaps in the legal and policy framework. Assessment recommendations are not yet integrated in the policy framework (by-laws) but under consultation with the MoEWR. Letter of Agreement (LoA) currently under discussion between UNDP and MoEWR is a mechanism to conclude pending policy changes.

- Establishment of the Inter-Ministerial Working Group (IMWG) on RES/EE delayed due to COVID-19 pandemic.
- A Study Tour to Kyrgyzstan organized in January 2019 for 10 representatives of the MoEWR, CEP and RES/EE practitioners/private sector and civil society active in energy sector⁴⁸;
- Letter of Agreement (LOA) between the MoEWR and the project is in draft form but not signed. This letter turns the implementation of Component 1 over to the MoEWR and clears the way for funds transfer to complete the work.

Component 2. Access to finance for GE SMEs and/or service users:

- A Study of Green Energy market in Tajikistan carried out in 2019, validating the needs and potential for SWH technologies in the country. The study includes (a) financial analysis for 4 RE products (solar PV and SWH) and (b) determined the volume of financial incentives to be provided.
- Analysis of MFIs active in GE microfinancing carried out in 2019 and updated in July 2020. A detailed evaluation criterion for the local MFIs interested in cooperation with the Project has been developed. Remaining follow-up steps suspended due to COVID-19 pandemic, i.e. – (a) Call for Expression of Interest (EoI) for MFIs⁴⁹, (b) selection of MFIs, and (b) Provision of TA and grants to selected MFIs to develop GE loan products.

Component 3. Business models for GE SMEs:

Sub-Component 3A: Promoting RESCO – solar energy for off-grid communities:

- The first RESCO model identified, partner (Pamir Energy Company) and site (Murghab, GBAO) selected. Project planned allocation of \$560,000 for Alichur solar project. Remaining \$1.8mln (optimum scenario) from other sources which are not identified yet.
- Feasibility Study⁵⁰ for “Installation of a solar generating capacity in Jamoat Alichur, Murghab region of GBAO” completed in December 2020 (with 5 months delay due to COVID-19 pandemic: travel restrictions to project model site).
- Training Programme on the RESCO model has been developed.
- Bidding procedure for installation of solar power plant and mini-grid in Jamoat Alichur, based

⁴⁷ Contract awarded in April 2019 with Frankfurt School of Finance and Management Consortium and NGO Peshsaf (Tajikistan). Findings of the Assessment presented and discussed during a Round Table on October 4, 2019 (with participation of ICTA and RTA).

⁴⁸ The objective of the Study Tour was to get informed on existing practices in Kyrgyzstan and enhance capacities of national government representatives as well as practitioners from the private sector and civil society organizations.

⁴⁹ Based on Call for EoI, signing of Grant Agreement with up to 5 MFIs.

⁵⁰ Contract signed (in February 2020) with PO Bargi Sabz (Tajikistan) for carrying out FS for construction of a 300kW solar PV-based power plant and installation of a mini-grid in Alichur Jamoat of Murghab district in GBAO region.

on the outcome of the FS, not launched yet.

Sub-Component 3B: Facilitating investments in SWH by tourism facilities and other SMEs.

- LLC Green Technologies (Tajikistan) was contracted in 2020 to implement a nationwide marketing and awareness raising campaign (MARC) on solar technologies and their benefits for households (especially for female-headed households) and businesses. The LLC implemented planned activities through a “Energy Bus”⁵¹ covering about 18,000 people through MARC.
- Installation of Solar PV plants and SWH collectors at 53 project sites has taken place (co-finance with OFID). These RE technologies were installed in tourist guesthouses (10 sites), schools (14 sites), MEs (19 sites), and health facilities (10 sites) in rural areas across 21 districts. In total 20 sites in on-grid and 33 sites in off-grid areas. The total number of people directly benefiting from the RES installation will reach up to 1,600 people and around 11,000 people (30% women) will indirectly benefit from this subproject implementation.
- 15 solar technology technicians (including 2 women) were trained. Rural women in 10 rural communities across Tajikistan are being provided with on-job trainings (do-it-yourself) for assembling, installation, operation and maintenance of RE and EE installations.
- Study Tour to Zagreb, Croatia, planned in March 2020 for 10 representatives from government, NGOs and private sector, postponed due to COVID-19 pandemic (international travel restrictions).

Component 4. Knowledge Management M&E:

- Workshop conducted on December 6, 2018 on “Strengthening opportunities for women in energy sector of Tajikistan”⁵²;
- A documentary film produced (10 min) on “Promotion of small-scale EE/RE technologies for rural women in 10 villages of Tajikistan” in May 2020.
- NGO “Youth Ecological Center” contracted to develop and launch a web platform for providers, financiers and users of EE/RE technologies. The platform serves as a comprehensive information source about RES technologies available in Tajikistan, as well as support in market engagement opportunities. The platform has already been launched (www.neruisabz.tj) in 2019.
- A two-page project information pamphlet detailing the objective, expected outputs, and achievements to date.

4.2.1. PROGRESS TOWARDS OUTCOMES ANALYSIS

IMPEDIMENTS TO PROGRESS

The project’s Progress Towards Results based on the UND MTR guidelines has been judged to be **MU**, moderately unsatisfactory, in terms of meeting overall Project Objective targets. The combination of poor project design, differing Government priorities and COVID-19 have all had an impact on the project and significantly affected progress. Poor project design has led to not having a coherent strategy at the start that points to how the project efforts will scale up; and the failure to account for baseline ability to pay and subsidized energy prices and the focus on SHW and Solar PV in activities without

⁵¹ Details in Chapter 3.2.1. of the Progress Report #3 by ICTA, Mr. Paata Janelidze.

⁵² Dedicated to 16 Days of Activism against Gender Based Violence, the International Day for the Elimination of Violence against Women (from 25 November to 10 December), Human Rights Day.

understanding the economics means resources misdirected.

COVID-19 prevented field missions and significantly reduced the ability to pay because of reduced remittances⁵³. It also forestalled face-to-face meetings that are important in a country like Tajikistan, and it reduced the stakeholder outreach efforts. Government counterparts had COVID-19 priorities that took importance over project responsibilities.

“Complications in the country caused by COVID-19 led to delays in most components of the Project, as the priorities of all government stakeholders were related to COVID-19 rather than promoting the development of renewable energies. Travel restrictions made it impossible for ICTA to visit Tajikistan, as well as for national consultants to travel internally to work on community-based activities. The pandemic affected the supply of equipment for subprojects, in particular the installation of solar PV and SWH equipment in on-grid and off-grid areas, which in turn left project components behind schedule with an average of 4-5 months.⁵⁴”

Progress has also been hampered by avoidable factors such as a lack of proper management, project team turnover and insufficient stakeholder outreach. Project management did not correct the design problems. Important redirection from the CTA in the inception and progress reports was disregarded for the most part. For example, project design focuses on tourist enterprise demand for hot water. The project commissioned the Frankfurt School to carry out the “Conduction of Country Assessment of Green Energy”. This product addressed market demand from preference surveys. These surveys were insufficient to build financial products upon since they did not accurately address cost and ability to pay. This next step was to take anecdotal or preference evidence and using financial analysis to determine which products would be demanded at current prices and interest rates; this was highlighted by the ICTA. This work was not done with the result was that there was insufficient guidance for the financial expert to perform his work. It is unclear from documentation provided by UNDP and KIIs if the Frankfurt School or the financial consultant was to have done this work and failed to do so. Or whether this was just a step that the project management missed in designing and implementing. Regardless of the reason, it is still poor project management. Either the PM failed to have consultants perform per their terms of reference or simply neglected this aspect of the work.

Project management failed to understand MFI and Other Stakeholder experiences and needs. The project suffered greatly, particularly given its poor design, because the inception phase was conducted before the CTA was onboard and so could not benefit from a seasoned international expert. There have been two PMs and the project is again without a project manager. It appears that the second PM was not focused on keeping stakeholders involved and while the MTR team did not have access to correspondence and phone records, discussions with almost all stakeholders indicated a serious lack of communication.

The strong stakeholder outreach could have informed work products about their direction. For example, of the almost 7,000 loans under the ADB Access to Green Finance, only 11 were for RE while 6,843 were for energy efficiency. Yet, the project did not take this into account. Strong outreach would have uncovered opportunities to participate with other donor programs where those programs had commitments to SWH and PV such as ACTED’s EU funded work with tourism facilities or Aga Khan’s work with solar heaters, solar water pumps and other RE measures in GBAO.

PROGRESS TOWARD RESULTS

The progress toward results ratings (Table 2) do not consider the reasons why a project may be ahead or behind of schedule and they pay equal weight to what has happened and what is expected to

⁵³ Remittances are critical to rural household incomes in Tajikistan. Of the countries reporting Remittance data to the World Bank, Tajikistan had the third highest level of remittances as a percentage of GDP in 2016, 26.8%. Work by the World Bank shows that remittances fell sharply in Tajikistan due to COVID-19 and another Bank study concludes that remittances are critically important to rural household energy expenditure decisions.

⁵⁴ ICTA 2020 Progress Report.

happen.

TABLE 2 GRADING SCALE

Target has already been achieved.	
Target is partially achieved or on target to be achieved by the end of the project.	
Target is at high risk of not being achieved by the end of the project and needs attention.	

PROJECT OBJECTIVE LEVEL RESULTS

It is the combination of success in the four components that leads to achieving the overall project objective level targets. While the project has had some preparatory work in each of the components, it has not yielded sufficient results to meet midterm targets. Despite poor project design, the combination of the Green Energy SMEs project with PE/WB **Activity** (in pursuit of RESCO based mini-grids in GBAO) is sufficient to meet or almost meet all the objective targets in Table 1. To do this, however, urgent attention is needed to move from opportunity to reality. There is a verbal agreement with the Ministry of Energy, Pamir Energy, and the project about the project's assistance and role. This needs to be formalized in writing and then the necessary effort begun.

The one objective target where much more additional effort is needed is in the "change in modern energy coverage by users"⁵⁵. Success in reaching this target requires rethinking Component 2 and 3B activities. The component 2 approach needs to begin with a serious discussion with MFIs and an economic analysis of products and customers. Component 3B needs to understand the extent to which tourism facilities demand SWHs. It is better to first determine where demand is and then target those customers. There is nothing in the ProDoc that provides analytical or empirical support to choosing tourism facilities over other energy consumers paying the same price and KILs indicated that there is demand for industrial hot water and in sports clubs and recreational facilities. Those tourism facilities that the project visited exhibited no sign of replication and admitted that they could not have done this without the project subsidizing the cost. Additionally, the project should change the target definition of Lifetime RE production per technology to Lifetime RE production. The total MWh will not change but will be 59,100 MWh. This change in definition allows greater flexibility to reflect ground level realities in Tajikistan. The rating of MU arises from the simple mathematical average of the individual indicator ratings; without urgent and immediate attention, the project will achieve its targets with major shortcomings.

Table 3 presents the progress towards results using the GEF colour coding and six-point rating scale in Annex 6.4

⁵⁵ Success in component 3A will reach approximately 12,000 new users as defined by the ProDoc Monitoring Plan. This leaves 5,000 to be addressed by other project components.

TABLE 3 PROGRESS TOWARDS RESULTS MATRIX (ACHIEVEMENT OF OUTCOMES AGAINST END-OF-PROJECT TARGETS)

Progress towards achieving the project objective to “facilitate the transformation of Tajikistan’s energy sector, in particular the emergence of independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population” is rated Moderately Unsatisfactory (MU) . If the proper attention is paid now, the project can catalyze the electrification program with Pamir Energy and meet three of its objective targets and come close to meeting the other two.								
Project Strategy	Indicator	Baseline Level	Level in 1 st PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Objective: To facilitate the transformation of Tajikistan’s energy sector, in particular the emergence	[GEF CCM Tracking Tool Indicator]: Volume of investment mobilized and leveraged for low GHG emission development s (mln US\$)	n/a	(not set or not applicable)	US 10million	US \$ 30 Million	\$ 0	4	<p>No investment had been mobilized by the MTR.</p> <p>Based on ongoing discussions with the project, PE and the World Bank, the project can be close to meeting this target, if it focuses now. The PEE/WB Activity will bring close \$30 million alone. Additional effort will need to be focused in Components 2 and 3B to fully meet the target.</p>

of independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population	Extent of change in modern energy coverage by users	No change	(not set or not applicable)	4,000 new users of RE products services	Over 17,000 new users of RE products/ services	1,600 new users	3	<p>Less than 40% of the MTR target has been reached by MTR⁵⁶.</p> <p>The project has installed solar PV plants and SWH collectors at 17 sites in conjunction with the UNDP/OFID "Energy Access SMEs Development project". This includes secondary schools, medical centers, medical houses, regional hospitals and maternity hospitals in rural areas benefiting 1, 600 people</p> <p>With PE/WB Activity almost 12,000 users can be reached. There is no definitive strategy currently to reach the remaining 3,0000. The project can meet or expected to be close to meeting this target, if it focuses now.</p>
	tCO ₂ eq, direct emissions reductions	n/a	(not set or not applicable)	15,000	53,000	1,361 CO ₂ eq	4	<p>The OFID cofunded projects have reduced GHG emissions but these reductions are estimated Ex-ante; there are no records to calculate actual (based on the monitoring data) GHG reductions.</p> <p>With the PE/WB Activity, the project can meet or expected to be close to meeting this target, if it focuses now</p>

⁵⁶ The project claims 1,600 users but many of these are just users of green energy where green energy replaced electricity. Records do not exist to establish the correct accounting.

	Increase in installed RE capacity per technology (MW for electricity and m ² for SWH)	n/A	(not set or not applicable)		0.350 MW solar PV; .400 MW small hydro; & 5,000 m ²		3	The project has initiated the first RESCO, Alichur with PE. This has been rated Moderately Unsatisfactory based on its current design the targets are no achievable. However, if the project concludes it with agreement with the PE/WB Activity targets can be exceeded. The PE/WB Activity will address solar, wind, hydro and storage for a planned total of 9.6 MW. Actual realization will vary depending on actual resource availability and how many of the mini-grids are completed by end of the Green Energy project.
	Lifetime RE production per technology (MWh)	n/a	(not set or not applicable)		15,330 MWh solar PV 43,800 MWh Small Hydro	The total capacity of OFID co-founded projects equals to 83 kW (including 33 kW in off-grid locations), and 141 m ² of SWH system	2	The project has initiated the first RESCO, Alichur with PE. This has been rated Moderately Unsatisfactory based on its current design the targets are no achievable. However, if the project concludes it with agreement with the PE/WB Activity targets can be exceeded.

Outcome 1: Enabling policy and regulatory framework and capacity development for green energy SME

Outcome 1 has been judged to be **MS**, moderately satisfactory. It has met and exceeded its target for training but was rated an S because **it needs to focus additional training to scale up Outcomes 2 and 3**. It is on track to meet its targets in two areas, enabling frameworks and compliance checks and enforcement standards. Only in one area, additional decentralized RE capacity, does Outcome 1 require urgent attention to get back on track.

Project Strategy	Indicator	Baseline Level	Level in 1 st PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 1: Enabling policy and regulatory framework and capacity development for green energy SME	Status of by-laws enabling implementation of the Energy Efficiency Law	None existing	(not set or not applicable)	Draft sent to decision-makers	Final version adopted	None.	4	<p>Preparatory work has begun. The Frankfurt School comprehensive review of the legislative and policy framework related to energy sector was completed.</p> <p>The Letter of Agreement between MoEWR and UNDP will be signed shortly, and work will begin. MoEWR is anxious to see this completed and it is only this process of concluding the LOA.</p>
	Number of officials trained (including number of women)	0	(not set or not applicable)	20 (5)	50 (15)	95 (72)	5	<p>The training target has been met. Training included a study tour to Kyrgyzstan (10 representatives of the MoEWR, State Committee for Environmental Protection and RES/EE practitioners/private sector and civil society), 15 solar technology technicians were trained in Tajikistan, and more than 70 women, interested in establishing green energy enterprises and innovations received training.</p> <p>Additional training is needed and should be focused on Components 2 and 3.</p>

	Additional decentralized RE-based capacity enabled by the designed financial incentives scheme, MWs	None existing	(not set or not applicable)	0.35 MW	2.0 MW	None.	3	There is no discussion on how effort in this outcome will lead to achieving the targets other than the monitoring plan statement that it is “enabled by the designed financial incentive scheme”. This refers to off-grid RE and other than Pamir Energy, there appears to be little scope of 2MW being developed during the life of the project.
	Status of system of compliance checks and enforcement of performance standard for selected EE/RE products	None existing	(not set or not applicable)	Draft developed and sent to decision-makers	Final version approved by decision-makers	None.	4	Preparatory work has begun. LOA will be signed shortly, and work begun. MoEWR is anxious to see this completed.

Outcome 2: Access to finance for green energy SMEs and/or energy service users

Outcome 2 has been judged to be **U**, unsatisfactory. This outcome has the greatest challenges because the ProDoc focused activities on RE, SWH and because of the low price of electricity. ***The project will need to develop a strategy that embraces technologies and products flowing from the market assessment, develop a strategy to demonstrate, document and disseminate the results of pilots, and work with financial entities to train, provide technical assistance, and marketing.***

Project Strategy	Indicator	Baseline Level	Level in 1 st PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
------------------	-----------	----------------	--	----------------	-----------------------	----------------------------	--------------------	--------------------------

Outcome 2: Access to finance for green energy SMEs and/or energy service users	Number and volume (US\$) of green loans approved for SWH and other targeted EE/RE products (including those for women-led SMEs)	0	(not set or not applicable)	500 loans US\$ 650,000 (at least 25 loans to women-led SMEs)	2,000 loans US\$ 2,600,000 (at least 100 loans to women-led SMEs)	0	3	<p>There has been no loan activity thus far.</p> <p>While the indicator says both EEE and RE, the ProDoc activities and the project's consultants have focused on solar PV and SWH. Some preparatory work has been completed⁵⁷.</p> <p>It is unclear at this time how the project will achieve this target without shifting focus. The ADB Green Finance project with much more favorable terms) financed only 11 RE loans but 6,843 EE loans.</p> <p>If the activity is refocused to purposely target EE, there is a good possibility that it can come close to meeting the target</p>
	Number of beneficiaries using RE (including number of women)	0	(not set or not applicable)	4,000 (2,500)	16,000 (10,000)	0	3	<p>There has been no loan activity thus far.</p> <p>No progress has been made and no realistic plan is in place to reach the target. If the activity is refocused there is a good possibility that it can meet the target</p>

⁵⁷ A Market assessment on green energy & energy efficiency technologies to identify service users and SMEs; the development of a database on available GE & EE technologies and equipment and suppliers working on the national market has been completed and a Stakeholder analyses for promotion of green energy products has been completed

Outcome 3 has been judged as MS, moderately satisfactory but colored red because urgent attention is still needed. Once the project firmly cements its relationship with PE minigrids other than Alichur, it will easily meet one target and have reached over 60% of another. A third target on SWH will be difficult to meet as defined and the fourth target belongs in Outcome 4. ***It is suggested that the project redefine the SWH indicator to include all GE solutions not only SWH. It is suggested that the last indicator be moved to Outcome 4.***

Project Strategy	Indicator	Baseline Level	Level in 1 st PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 3: Business models for green energy SMEE	Installed new RE-power generation capacity based on RESCO model, MW	0	(not set or not applicable)	0.35 MW	0.75 MW	0	3	The project has initiated the first RESCO, Alichur with PE. This has been rated Moderately Unsatisfactory based on its current design the targets are no achievable. However, if the project concludes it with agreement with the PE/WB Activity targets can be exceeded. The PE/WB Activity will address solar, wind, hydro and storage for a planned total of 9.6 MW. Actual realization will vary depending on actual resource availability and how many of the mini-grids are completed by end of the Green Energy project.

	Number of SWH systems facilitated by the project (in tourism facilities)	0	(not set or not applicable)	20	100	2	3	The project has cofunded the 53 OFID projects and there were several tourist facilities that received SWHs. However, nothing has been done to build on the experience of these facilities or to scale-up and as has been discussed above it is not clear that there is sufficient demand from Tourism facilities to fully meet the target. ⁵⁸ There is no evidence to support that there is sufficient demand at tourist facilities to reach this target.
	Number of people with improved access to energy (including percentage of women)	0	(not set or not applicable)	4,000 (60% women)	17,867 (60% women)	1,600	3	Approximately 1,600 have been access through the OFID cofunded project. With the PE/WB Activity minigrids, (36 in total) the project will reach over 50% of the target, but there is no plan to reach the remainder of the target.
	Number of people accessed by marketing and awareness raising campaign (including percentage of women)	N/a	(not set or not applicable)	1 Million (60% women)	3 Million (60% women)	18,000	3	The energy bus has reached 18,000 but it is nowhere near the target. The project has developed other outreach materials but has not deployed them. The project has no plan to link awareness or marketing with broader project objectives. Move this to Outcome 4 where it is more appropriate.

⁵⁸ While the OFID cofunded project add to the total, they are not replicable by the project since these were completely subsidized. The project is not designed to do that.

Outcome 4 has been judged as **MU**, moderately unsatisfactory and colored red because urgent attention is needed. The principal purpose of Outcome 4 is scaling up by “documenting and disseminating best practices and lessons learnt.” Thus, this indicator needs to be more targeted. It is suggested that the last indicator in Outcome 3 be moved to Outcome 4 and that internally, the project look at setting targets by consumer category once the market assessment is completed.

Project Strategy	Indicator	Baseline Level	Level in 1 st PIR (self-reported)	Midterm Target	End-of-project Target	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 4: Knowledge Management and M&E	Number of organizations receiving results of project, including GHG emissions and socio-economic benefits (targeted number to be established during project inception)	None	(not set or not applicable)	None	100% of identified organizations		3	The project was to have identified the baseline during inception; it did not. The purpose of this activity is scaling up and it is inconceivable that at inception the project would know the number of potential stakeholders it needs to reach in each area.

4.2.2. REMAINING BARRIERS TO ACHIEVING THE PROJECT OBJECTIVE

Table 4 presents the remaining barriers for each outcome. Most of these barriers can be addressed by the project, as they are within control of the project. One barrier, the artificially low price of electricity is not within the project's control, but it does impact the project. Thus, the strategy must recognize this and develop work arounds.

Project management barriers can impact the entire project, and these are discussed further in section 4.3.

TABLE 4 BARRIERS TO ACHIEVING PROJECT OBJECTIVES AND IMPACTS

Table 4 presents the barriers that were present in the ProDoc. The most important barrier facing Green Energy is the pricing of electricity below full cost recovery. The project does not do anything to address this.

Demand side	Supply side
Barrier 1: Policy and regulatory framework Framework laws on EE and RE exist and provide a good basis for EE and RE market development. However, their systematic implementation is lacking, the development of several important by-laws and regulations. <i>This barrier still exists but will be partly remedied by activity 1.1 in Outcome 1.</i>	
Barrier 1.1: Lack of specific policies and regulations mandating or promoting wider adoption of EE/RE technologies by end-users (e.g., building energy codes, green public procurement rules, etc.). <i>At present: No regulations and enforcement mechanisms in place.</i> Barrier 1.2: Lack of public financial incentives and mechanisms (grants, concessional loans, leasing), which are essential, given the nascent stage of the market, to boost the initial demand for GE among consumers: National EE/RE Fund, set up based on RE and EE Laws is being operationalized, yet lacks operational capacities and credible financing plan and sources of revenues. <i>This barrier still exists. Moreover, financial incentives only in a form of special custom and tax incentives for RE products, planned under Activity 1.2.1, will not be sufficient to lower cost to the point of making the products financially feasible unless and until electricity is priced at cost recovery levels.</i>	Barrier 1.3: Absence of favorable tax and import regime for GE suppliers: although reduced import duties exist <i>de jure</i> , their application in practice is inadequate resulting in high transaction costs (up to 50 percent of the product) and consequently much higher end-user prices. <i>This barrier still exists. Similarly, to Barrier 1.2, financial feasibility of GE products depends upon many items, particularly the price of substitutes, electricity.</i> Barrier 1.4: Absence of quality and performance standards for GE products leads to the dominance on the market of the products with sub-optimal and inferior qualities, which undermine consumers' confidence in the technologies and discourage further demand. <i>This barrier still exists.</i>
Barrier 1.5: Insufficient capacities among public agencies, the Ministry of Energy and Water Resources, State Committee on Architecture and Construction, Tax and Custom Office, etc. to design and implement the required policies and regulations. <i>This barrier still exists.</i>	
Barrier 2: (a) Low ability to pay and (b) unattractive financing terms for GE <i>These two barriers still exist. These barriers were planned to be removed by providing access to finance</i>	Barrier 3: Under-developed supply chain for EE/RE products and services

<p>for GE SMEs and/or energy service users in partnership with Tajik MFIs, the EBRD/CIF “Tajikistan Small Business Climate Resilient Finance Facility”⁵⁹, the ADB “Access to Green Finance Project” and the UNDP “Aide for Trade”⁶⁰ projects. However, lowering the cost does not impact the ability to pay! Moreover, the experience of ADB and EBRD shows that the demand for RE technologies (not EE) is very low. This is because the demand is influenced by the cost of RE compared to grid electricity and the income of the customer.</p>	<p>Component 3 is to address this barrier in partnership with Pamir Energy and other GE SMEs.</p>
<p>Barrier 2.1: High up-front costs of most EE/RE technologies, which are prohibitively expensive for consumers due to widespread poverty. Full costs of a 2-kW solar PV system are in the range of \$ 5,000 to 6,000, while average household income is around \$120/month.</p> <p>This barrier still exists. This barrier was planned to be removed by providing access to finance for GE SMEs and by promoting RESCO modality for off-grid solar PV systems. Investment grants were also considered. This can be addressed by focusing the activity on EE products which so more favorable economics.</p> <p>Barrier 2.2: High interest rates are a major financial hurdle for consumers willing to borrow funds for EE-RE.</p> <p>This barrier still exists. This barrier was planned to be removed by:</p> <ul style="list-style-type: none"> - developing standard loan products for prioritized GE solutions; and - investment support (grant) in the form of an interest rate subsidy (up to 10% on commercial loan interest rate – maximum threshold for commercial interest rate should be determined at the inception stage based on analysis of prevailing market conditions) for eligible EE/RE technologies/projects. - MFIs indicate that more than funds, they need TA, training and marketing to attract GE customers. 	<p>Barrier 3.1: Dominance of low-quality products, mainly imported from neighboring China, being sold on grey market without reliable warranties and quality certificates.</p> <p>This barrier still exists.</p> <p>Barrier 3.2: Companies engaged in GE products supply are mainly SMEs with limited own capital and capacities.</p> <p>This barrier remains mostly unchanged. Some suppliers have obtained greater financial stability, but they are, nonetheless, risk averse.</p>
<p>Barrier 4: Limited knowledge and awareness</p>	
<p>Barrier 4.1: Lack of systematic monitoring (including country-specific methodology and tools) and reporting about environmental and social-economic benefits of GE.</p> <p>This barrier still exists.</p>	
<p>Barrier 4.2: Potential GE end-users have very limited access to knowledge and information about existing</p>	<p>Barrier 4.3: There is no official, publicly available information about the rural energy supply situation, such as communities/areas with limited energy supply</p>

⁵⁹ Current title: Tajikistan Climate Resilience Financing Facility CLIMADAPT is developed by the EBRD and Climate Investment Funds (CIF), supported by the United Kingdom and the EBRD Early Transition Countries Fund.

⁶⁰ Energy Access SMEs Development Project financed by OFID

<p>solutions and their benefits for their business and/or households.</p> <p><i>The energy bus is an innovative attempt to address this, and 18,000 people have been reached. But much more needs to be done and it needs to target to specific consumers and specific technologies.</i> Much more needs to be done.</p>	<p>and off-grid communities (i.e., potential market for EE/RE).</p> <p><i>After the launching Green Energy SMEs project (and OFID project as well) and establishing adequate communication with the Ministry of Energy and Water Resources and Pamir Energy, the situation has been improved</i> but it is still rather sparse.</p>
--	---

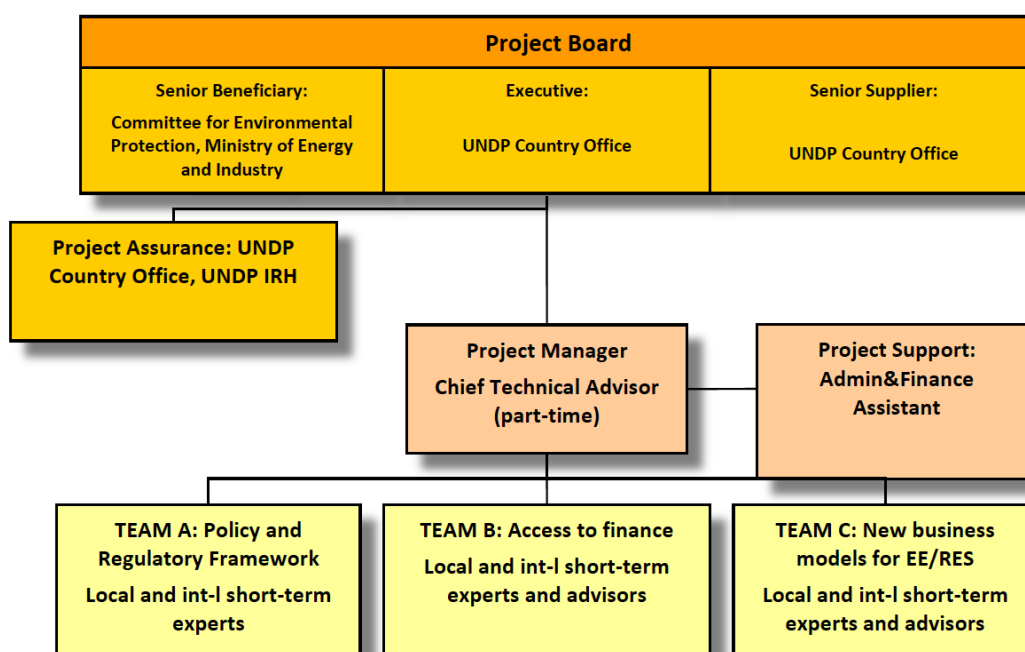
4.3. PROJECT IMPLEMENTATION AND ADAPTIVE MANAGEMENT

The overall rating for project implementation and adaptive management is Moderately Unsatisfactory (MU). The reasons behind this rating are explained below and it is important to understand that this can be turned around and the project set back on the path to success with adequate attention.

4.3.1. MANAGEMENT ARRANGEMENTS

As a theoretical construct the project management arrangements in the ProDoc are sound and routine (Figure 3 repeated below).

FIGURE 3 ORGANISATION STRUCTURE



The project manager's role, according to the ProDoc TORs, is:

- Liaise with the Project Board to assure the overall direction and integrity of the project.

The PM failed to make the SC fully aware of the challenges to the project or its very slow progress. The PM should be discussing the results of the PIR so that the SC can make appropriate decisions and approve the annual work plan based on adjusting to the PIR. The first PIR was completed in mid 2020 well before the last SC on December 29, 2020. Neither the annual work plan was adjusted to reflect the PIR nor was the SC informed according to the minutes of the meeting.

- Supervises and ensures the timely implementation of the project relevant activities.

- Prepares a detailed work plan for the project, manages the procurement and the project budget to assure timely involvement of local and international experts, organization of training and public outreach, purchase of required equipment etc. in accordance with UNDP rules and procedures.

No detailed work plan was prepared by either PM despite the guidance of the ICTA and the examples that were provided.

- Assures coordination among project activities;

Coordination requires coordination in planning and implementation. There is no evidence that the PM did this.

- Liaises with the relevant ministries, national and international research institutes, NGOs, and other relevant institutions in order to gather and disseminate information relevant to the project and organize realization of project activities;

As mentioned elsewhere, communication was minimal and beyond the SC and Pamir Energy that the PM did not actively engage with other stakeholders to gather information relevant to the project such as MFIs.

- As applicable, communicating with the project's international partners and attracting additional financing in order to fulfil the project objectives.

No evidence was found in the project files or in KIIs to indicate that the PMs communicated with the WB, ADB, EU, USAID or other international partners other than OFID. This is very important since those partners had lessons learned that would benefit the project and have leveraging opportunities.

And

- Capture lessons learned during project implementation

No evidence was found in the project files or in KIIs to indicate that the PMs captured any lessons learned during implementation.

SUGGESTIONS FOR IMPROVEMENT

In practice, given the availability of experienced project managers, the salary and turnover that has been experienced, the reluctance of PMs to take direction from the ICTA, changes are needed as described below.

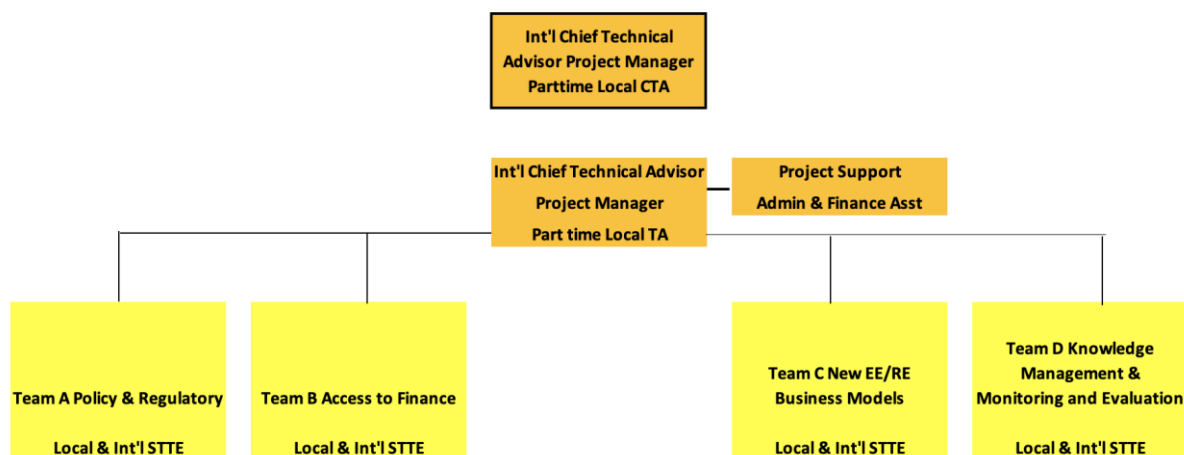
Suggestion	The ICTA should take over direction of the project and the PM should report to and take direction from the ICTA.
Justification	<p>The PMs consistently ignored important technical advice from the ICTA. In the current structure, the PM is to develop products like the detailed annual work plan and the strategy with assistance from the ICTA. The PMs did not take the initiative and when these and other important activities were recommended by the ICTA, the PMs disregarded them.</p> <p>Putting the ICTA in charge of the PM means a somewhat downgraded role for the PM, but it fits what UNDP has been able to find given the available pool of talent at the current level of remuneration⁶¹. It also takes advantage of the advanced experience and skill level of an</p>

⁶¹ Both PMs cited remuneration as a reason for resigning. Other former UNDP PMs indicated that they would not accept the responsibility of PM at the current remuneration level. The recommended structural changes downgrade the PM position and shift much of the responsibility to the ICTA.

	<p>ICTA.</p> <p>Note that this may require a change in the contractual relationship of the ICTA. We use this as a term to denote someone of the current ICTA's experience and education which is much greater than that required for the PM. This term is not meant to imply any form of contractual relationship. The determination of the contractual vehicle is beyond the scope of the MTR.</p>
Suggestion	The ICTA should be in country more often and for longer periods of time such as three-week duration trips with a total of approximately 100 days in country per year.
Justification	This is insufficient to pick up from where things were and advance. Given that much of the time is in routine meetings and meetings with key stakeholders, little time is left for new and emerging tasks. The ICTA is limited to the amount of time in country because of the contract. Their time in country is critical since the motivation and experience level of PMs is not sufficient to provide direction to the project.
Suggestion	Consider bringing on part-time local technical talent to support the ICTA and PM.
Justification	The budget for STTA technical support exists but both the first and second PM did not avail of this. The TORs for the PM do not require energy background and the project requires more technical time than from the ICTA and a lower level of experience. This addition is needed in the development of TORs, review of work products, and to provide general technical guidance to the PM in support of technical direction by the ICTA. This kind of technical expertise is also critical for dealing with stakeholders and consultants when the ICTA is not available as they will not be because they are not full-time.
Suggestion	Create a Knowledge Management team as is done for other Components
Justification	The ProDoc correctly points to the importance of Knowledge Management (KM) and M&E but did not account for it in the organisation structure. The replication of successful project interventions in Outcomes 2 and 3 depend critically on "getting the word out". This will not happen without a well-planned, targeted, and implemented outreach program and the project needs a full-time project communication and awareness officer.

Error! Reference source not found.3 illustrates the proposed changes to the organisation structure.

FIGURE 4 REVISED ORGANISATION STRUCTURE



It has been hard to strike a gender balance in the project steering committee and the project team itself, but this is based on the current level of women's participation in the project institutions and

relevant labour pool. However, project activities are directly focused to deliver benefits to women either has direct beneficiaries of TA, training, and project supported lending or because of changes in energy access or substitution of GE for other forms of energy. No changes in the gender approach are suggested.

4.3.2. WORK PLANNING

Delays in start-up and implementation can be grouped into (a) poor planning and management, (b) Government priorities, and (c) COVID-19. The ProDoc was signed after a long delay in July 2018; the first PM was not in place until three months later, October 2018; the Administrative/Financial Assistant (AFA) was working until February 2019; and the ICTA was not in place until after the end of the inception phase in April 2019. The project start was delayed and rudderless from a technical point of view. The inception workshop was held in December 2018 without any guidance with the ICTA or local consultant. The inception report was not prepared until June 2019 and does not reflect the inception period as much as the ICTA's advice that would have been given at the workshop had he been involved.

It was not until the ICTA's inception report in June 2019 that realistic technical direction was provided. The ICTA inception report pointed out many of the ProDoc problems and recommended solutions. Examples include:

1. MFI, ADB, and EBRD experience indicates a very low level of interest in RE loans. This was not headed in consultant TORs.
2. The ICTA notes that the "GE and OFID projects are to be implemented not as "stand-alone" projects but they have to "complement each other; funds of both projects should be used effectively; activities shouldn't overlap, and maximum synergy should be ensured." The GE project did not develop any lessons learned from the OFID projects it co-financed nor any cases studies to disseminate the results.
3. A subsidy scheme needs to be developed for GBAO RESCOS. This has not been addressed
4. The target for Output 3.1 should be revised to 0.75 MW new RE-power generation capacity installed based on RESCO to allow flexibility to resource availability constraints.

The first PM quit after six months and from March 2019 until September 2019 the project was without both the PM and the AFA. The second PM and AFA were hired in September 2019. The project had caretaker PM who had duties as a program manager of three other projects in addition to the Green Energy SMEs project. Thus, he could not devote the necessary time to get the project back on track. The result was that mainly only those activities that were under contract continued and valuable time was lost maintaining relationships with stakeholders.

The high turnover of PMs can be attributed to both the relatively low salary for a PM⁶² and the exceptional workload and experience level that is required of a PM given the poor design and overly ambitious targets. Complicating this was the reluctance of the project to take on all the guidance of the ICTA. For example, the ICTA revised the activities, and these revisions were included in the 2020 annual work plan, but it appears the project would not develop a detailed internal work plan, recommend changes to the logframe, or engage closely and routinely with stakeholders⁶³. Many of these concerns can be addressed by changing the organisation structure as suggested above. Additionally, the ICTA developed detailed and appropriate TORs for consultants that the PM simplified with the result that

⁶² The successful PM for this project in the current setup must be highly experienced and highly motivated. KIIs with former UNDP project managers indicate that they all became consultants when the salary scale changed and none, even though qualified, were willing to apply for the position because of the workload compared to the remuneration.

⁶³ This is based on KIIs and the communication records furnished by the project. For example, records indicate that of the four financial entities with records only one was contacted prior to late 2020 and that by the CTA. There was not follow-up by the project to his communication.

the final product was less useful than had the original TOR been followed.

SUGGESTIONS FOR IMPROVEMENT

Suggestions	Develop a detailed strategy that recognizes the problems of poverty and the low price of electricity and ties all project activities into a coherent basis to address the project objective. <i>Key components of this strategy should be stakeholder outreach and communication of successes to scale up.</i>
Justification	There is no coherent strategy other than the high-level Theory of Change and broad activity descriptions. There is nothing that concretely links how pilots and demonstrations will scale up to reach targets. The design treats dissemination as an end of project activity. A successful dissemination strategy needs to be developed at the beginning of an activity or component. It needs to determine the target audience and what information that audience needs to make decisions about green energy. This needs to be incorporated into activities so that information is correctly collected and then presented. For example, the cofunded OFID projects did not collect any information on energy expenses and use before the installation of RE equipment. It can't then demonstrate the economics of work and thus convince other consumers to purchase.
Suggestions	<i>Develop a detailed life of project and detailed annual work plans.</i>
Justification	This is a complex project with many moving parts. The ProDoc and the ICTA both recognized the need to the project to develop work plans that were in greater detail than in the ProDoc.
Suggestions	There needs to be a clear link between the detailed work plan activities and TORs such that the TOR should reference the activity being addressed and how this contributes to the achievement of the outcome
Justification	For example, in 2019 the project co-funded 17 RE projects with another UNDP/OFID project. The team visited some of those projects. While the projects may have been good and have a positive social impact, there was no link back to the goals of the Green Energy SMEs project. There was no plan on how to move forward from these investments to scaling up or developing financial instruments or case studies. This attitude pervades the project implementation. These are not disparate activities that stand on their own; they are or should be intimately interwoven leading to the culmination or achievement of the goals

4.3.3. FINANCE AND CO-FINANCE

Table 5 presents planned and actual expenditures from August 2018 until December 2020 and total project planned expenditures. No major issues were reported or observable regarding the financial management of the Green Energy SMEs project. So far, no independent audit has been conducted. The slow pace of expenditure mirrors the slow pace of implementation. Total delivery at the time of the MTR (actual expenditures ÷ planned expenditures) is quite low, or 31.2 percent. However, it is expected that a large expenditure in Component 3A in support of the work with Pamir Energy will take place in the first half of 2021 and this will bring actual expenditures to 71% of planned expenditures.

Note that no expenditure is listed for the period 2018-2020 yet the project claims activities in Outcome 4.

TABLE 5 CUMULATIVE PROJECT FINANCE

	Planned	Actual	Delivery	Total project budget

	ProDoc	Expenses (2018- 2020)	Balance	Expenditures (2018-2020)	Act/Pln Percent	Planned Budget	Actual as % of Plan
Outcome 1	\$386,750	\$203,021	\$183,729	\$77,755	42.3%	\$386,750	20.1%
Outcome 2	\$665,500	\$256,660	\$408,840	\$32,453	7.94%	\$665,500	4.9%
Outcome 3	\$1,207,750	\$660,592	\$547,158	\$157,717	28.8%	\$1,207,750	13.1%
Outcome 4	\$140,000	\$38,333	\$101,667	\$0.00		\$140,000	
PM	\$119,963	\$61,496	\$58,467	\$16,160	27.6%	\$119,963	13.5%
Total	\$2,519,963	\$1,220,102	\$1,229,861	\$284,086	21.9%	\$2,519,963	11.2%
PM TRAC	\$300,000	\$144,796	\$155,024	\$169,334	109%	\$300,000	56.4%
Grand total	\$2,819,963	\$1,356,078	\$1,454,886	\$453,420	31.2%	\$2,819,963	16%

The co-financing, Table 6, gives an overview of co-financing sources, types, amounts at CEO endorsement and actual amounts contributed at MTR. This lack of actual commitment, 59%, in large part due to the slow pace of implementation. It is not believed that the lack of co-financing at the time of the MTR will affect project delivery.

MoEWR co-finance is used for Project Management and Implementation of Component 1: EE- RES policy design and enforcement along with UNDP funding. Additional UNDP co-finance supports overall project management and implementation across all components. Co-financing from the Ministry of Finance and the MFIs is to support lending for Component 2. Pamir Energy, Systemaytomatika and 55 group co-finance is to be used for the pilot RESCO.

TABLE 6 CO-FINANCING

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Co-financing amount confirmed at CEO Endorsement (US\$)	Actual Amount Contributed at stage of Midterm Review (US\$)	Actual % of Expected Amount
UNDP (in-cash)	UNDP (in-cash)	In-cash	300000	169,334.60	56.4%
UNDP (parallel)	UNDP (OFID/UNDP Energy project & UNDP/GEF Small Grants Programme)	Parallel co-financing	4000000	389,354.92	9.7%
Government	Ministry of Energy and Water Resources	Parallel co-financing	500,000	550,000	110.0%
Government	Ministry of Finance ⁶⁴	Parallel	10,000,000	2,640,000	26.4%

⁶⁴ ADB's "Access to Green Finance Project" (\$10 million), in its final stage of implementation, works with Tajikistan's micro-finance institutions (MFIs) to develop and provide new credit products for households and SMEs for smart GE solutions (SGES), such as solar heating and PV installations, biogas, energy efficient stoves and appliances. ADB also provided capacity building and technical advice to MFIs on structuring SGES loans. Even though the ADB has closed the project, the Ministry of Finance will continue managing accumulated reflows and support MFIs through the established Project Implementation Unit (PIU).

		co-financing			
Private Sector	Pamir Energy	Parallel co-financing	5,000,000	8,863,875	177.3%
Private Sector	Micro-credit Organization Arvand	Parallel co-financing	1,500,000	-	0.0%
Private Sector	Micro-credit Organization Mehnatobod and Sarvati Vakhsh	Parallel co-financing	350,000	-	0.0%
Private Sector	Systemavtomatika	Parallel co-financing	100,000	72,000	72.0%
Private Sector	55 Group	Parallel co-financing	200,000	-	0.0%
Total Co-financing			21,950,000	12,982,460.28	46.4%

4.3.4. PROJECT-LEVEL MONITORING AND EVALUATION SYSTEMS

M&E activities are reflected in the annual project implementation reports (PIR)s in line with the ProDoc. However, given the relatively slow progress, there has been only one PIR for the period July 2019 to June 2020. This report highlights some of the serious challenges the project is facing, and the related risks are described in detail, with potential mitigation options. The two major risks the PIR identifies are Health and (COVID-19) and Financial Risk. The financial risk is “Widespread poverty and lack of sustainable source of income resulting in perceived low consumers’ creditworthiness/ ability to repay the loans. “This is expected to be mitigated through “(i) providing assistance to MFIs in developing and marketing of GE products; (ii) implementing awareness raising and marketing campaign; (iii) providing interest ratesubsidy to the borrowers.” These are correct mitigation measures for the risk identified. However, the PIR fails to recognize the risk discussed earlier, i.e., the impact of poverty of the demand for green energy. While the PIR recognizes that the very low price of electricity may inhibit incentives for green energy and its impact on Outcome 1 activities, it fails to recognize how this impacts Outcome 2 and 3 activities.

The MTR team noted there relatively limited, if any, use of the present M&E system as a learning and reporting tool. The M&E system should assist the team in the remaining implementation period to document and generate essential learning. In this respect it is suggested to organize a review workshop with all key stakeholders to focus on lesson learnt, identify emerging good practices and evaluate interventions to enhance lasting impact of the project interventions. The organization of a review workshop is intended to facilitate an effective knowledge management/M&E system of the project through a coordinated effort to identify, document and share key learning emanating from the project interventions.

Note that the MTR has revised the ProDoc Monitoring Plan to reflect changes in data collection that will facilitate better project management. Additional definition has been provided and this can then be used as the basis for further revision based on the MTR comments above. The revised Monitoring Plan is included as Annex 6.10.

4.3.5. STAKEHOLDER ENGAGEMENT

The project⁶⁵ has maintained formal and regular communications with the MoEWR and Pamir Energy to facilitate project activities, particularly Component 3A. To a lesser degree it has maintained formal communications with other Government counterparts. However, it failed to maintain and strengthen relationships with other key stakeholders such as MFIs and GE private sector entities, and it has failed to proactively reach out to potential stakeholders with aligned interests. The ProDoc spoke of continuing relationships with the ADB and EBRD. It appears the project met with them in the early stages but has not followed up.

Meetings have been held with some of the MFIs by consultants in the preparation of their products, but no routine dialogue was initiated. Project communication records indicate that only four MFIs were officially contacted through email by the project and all, but one communication took place in late 2020. KIIs revealed that additional communications took place, mainly over the work products of two consultants. However, there was no systematic approach to keeping MFIs engaged and learning from their experience. Moreover, from the KIIs with MFI's, they support the project but feel that what they need has not been heard by the project and its consultants. One MFI indicated that more than money it needed special resources from the project to help prepare products and to design and conduct marketing campaigns.

There is mixed record with GE suppliers and installers. The project is directly working with some of them and so they see communications as routine and good. Yet other suppliers that are not providing services to the project at this point and have important market intelligence have not been contacted since the first PM resigned.

Most of the NGOs contacted indicated that they have not been approached by the project since its inception or design. They all support the project once they know what its objective is and what it can provide. However, the MTR team could find support for the project staying in contact and learning from NGOs with few exceptions being those involved in project activities.

To be sure, the turnover in PMs left periods when communication with stakeholders was missing and COVID-19 reduced the potential for face-to-face communications. However, the project consistently failed to maintain proactive communications with stakeholders, keeping the information it shared to a bare minimum. For example, MFIs are expected to be major participants to increase GE lending and yet, discussions with them and with former and current UNDP staff indicate that relatively little direct communication took place between the project and MFIs. Additionally, the project failed to reach out to potential partners such as NGOs and donors working in the GE space. The MTR team acknowledges that maintaining relationships is a time-consuming effort on top of the day-to-day, but it is important particularly when those stakeholders will be called upon to work alongside the project to increase the penetration of green energy. ***It is suggested that project develop and deploy a stakeholder communication plan.***

Local and national government stakeholders support the objectives of the project to varying degrees. One of the challenges in having a unified support for all aspects of the project is that it addresses a wide range of areas. Many national stakeholders support one key aspect of the project, the electrification of Alichur, and then they are not united in their support for other aspects.

There has been too little progress at this point to assess the extent to which stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives. However, both stakeholder involvement and public awareness will be key ingredients to the successful completion of project objectives.

4.3.6. REPORTING

⁶⁵ In this context, the project connotes the project manager since coordination and liaison with stakeholders was their primary responsibility. The ICTA routinely met with a diverse group of stakeholders when he was in country but there appears to be little follow up except when an actual deliverable was the topic, such as the feasibility work with Pamir Energy.

It was not until the ICTA's first trip and inception report that revisions were made to project activities to bring them in line with on-the-ground realities. These changes were communicated to the SC during its annual meeting by the ICTA along with the rationale for the change. It is unclear that these changes have been shared with key partners outside the SC. This is most likely due to the limited progress that has taken place. Moreover, given that there have not been any activities that would change the indicator values in the GEF tracking tool, there is nothing to report.

Reporting by the PMs was weak and has impacted project performance. As mentioned earlier, the PM did not report the results of the PIR to the SC and made no efforts to adjust the annual work plan in response.

4.4. SUSTAINABILITY

4.4.1. FINANCIAL RISKS TO SUSTAINABILITY

Components 2 and 3 are private sector activities. The product, either electricity produced by green energy or green energy products, are bought and sold by private sector entities and households. To the extent that the private sector is involved, financial risks to sustainability are lessened. In the case of Pamir Energy, the MTR team believes that PE's 25-year track record of sustained operations and maintenance ensures that project activities with PE will continue to be sustained over the life of the investment. Pamir Energy's tariff is designed to contribute to maintenance and operation and eventual replacement of equipment⁶⁶. There is a slight possibility in Outcome 2 and Outcome 3b that some of the demonstration sites may have reduced incentive to fully maintain the GE equipment or appliance to the extent that any subsidization takes place. This is the moral hazard of subsidization. This is highly unlikely for those agents that are part of scale up since they are paying the full price.

4.4.2. SOCIO-ECONOMIC RISKS TO SUSTAINABILITY

Consultations with all stakeholders during the MTR confirmed their interest in pursuing the overall objective of the project and the outcomes. Given the lack of an approach to demonstrating, documenting, and disseminating project activities, the project team needs to focus on lesson learnt and documenting emerging best practices to support scaling up. For example, there was no plan to document and disseminate the UNDP/OFID and Green Energy SMEs co-financed project investments in Solar PV and SWH at 17. Nor was there was a plan for recipients on paying for the maintenance and eventual system replacement.

The largest socio-economic risk to the project appears in Components 2 and 3B because demand here depends to a large degree on remittances in rural areas (Component 2) and on tourism (Component 3B) which depends on both international and domestic travel; both are heavily impacted by COVID-19.

4.4.3. INSTITUTIONAL FRAMEWORK AND GOVERNANCE RISKS TO SUSTAINABILITY

At this point it is difficult to opine on how the project has addressed risks in this area because so little has been done other than the preliminary work by Frankfurt school. While the project seeks to develop enabling frameworks to promote green energy the activities in Outcome 2 and Outcome 3 are based on the existing enabling environment and should therefore not be negatively impacted by any changes; the Government simply can't afford to lower electricity prices anymore. The project will need to be mindful of the champions that are needed and how to identify and engage them. Perhaps the most important governance risk is from project management and the remedies to this have been discussed elsewhere in this report.

⁶⁶ Based on discussions with Pamir Energy on Thursday March 4, 2021.

4.4.4. ENVIRONMENTAL RISKS TO SUSTAINABILITY

Based on the interviews with stakeholders no environmental risks to sustainability of the project were identified other than potential change in resource potential as a result of climate change. The UNDP Environmental and Social Screening (SEESP) of the ProDoc identified risks due to earthquakes and landslides and climate change related risks to resource potential.

Based on the findings and the discussion above on sustainability, the MTR concluded that the two key environmental risks identified in the SESP have been adequately addressed. The equipment purchased will be compatible and consistent with existent systems and international standards. SWH installers are aware of structural concerns in locating and siting SWH structures. The MTR team was unable to locate the ESMP that was to be prepared during project inception.

It is suggested that the project develop an exit strategy as phasing out plan for the project, identifying interventions to enhance lasting impact of the project and improve overall sustainability of the investments and interventions. Based on the assessment of the categories above the overall sustainability rating is moderate.

4.5. SUMMARY

In this section, the key findings are summarized by Component.

4.5.1. COMPONENT 1: ENABLING POLICY AND REGULATORY FRAMEWORK AND CAPACITY DEVELOPMENT FOR GE SMES

There is no reason why this component can't reach all its end of project targets. The Frankfurt School report has done a good job of reviewing the existing enabling framework, presenting the experiences of other countries and providing directions for moving forward. The main impediment has been negotiating and the signing the LoA. Once this has been completed then responsibility for implementing this will rest with the MoEWR which is eager to begin the work.

4.5.2. COMPONENT 2: ACCESS TO FINANCE FOR GE SMES AND/OR SERVICE USERS.

It will be difficult to fully meet this Component's targets unless major changes are made. Even with major changes, it is highly unlikely that the target of 2,000 loans will be reached in the remaining time. The project designed activities focused on solar PV and SWH at tourist facilities without providing any analytical basis for that decision. Discussions with MFIs and green energy suppliers indicates that demand is much highest for EE and lowest for solar PV. The MTR could not find widespread evidence that tourism facilities are the best choice or that SWH are in high demand by these facilities. Little discussion has taken place between the project and MFIs about the market and their needs to increase green energy product loans.

4.5.3. COMPONENT 3: BUSINESS MODELS FOR GE SMES.

There are two subcomponents.

Subcomponent 3A is Renewable Energy Service Company (RESCO): solar energy for off-grid communities. Project design was flawed because other than PE there are no viable private sector green energy entities capable of assuming the role of a RESCO and completing the activities in the project timeline. If the project formalizes its agreement with MoEWR and PE, then it should have no difficulty in reach many of its targets. Effort is still needed to reach an additional 3,000 users.

Subcomponent 3B is Facilitating investments in SWH by tourism facilities and other SMEs. There is concern here because of the lack of a detailed strategy for reaching the tourism facilities coupled with the observations mentioned in Component 2 above. Effort will be needed here to redesign these activities and revise the definition of targets and indicators.

4.5.4. COMPONENT 4: KNOWLEDGE MANAGEMENT AND MONITORING AND EVALUATION (M&E)

As written, this component will have problem meeting its targets by end of project. However, that target is poorly designed and meeting it will not guarantee success in other components that this component is meant to support. A major part of this it to address the barrier “Potential GE end-users have very limited access to knowledge and information about existing solutions and their benefits for their business and/or households.” The indicator does not address this. Activity 4.2.2 which is supposed to address this is “Prepare and disseminate lessons learned report”. No other thought is given to this and this is seen more as an end of activity product rather than a product built upon Component 2 and 3 activities. The design and implementation of Component 2 and 3 activities needs to consider the target audience and information requirements to scale up. This is not what was contemplated. Additional thought needs to be given to the marketing of project success for replication.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

1. The Green Energy SMEs project is very poorly designed but it is still important and relevant. There are segments of the community that will not be served by the national grid; energy efficiency remains an important answer to current and rising energy prices; and some RE applications have immediate economic viability but there are market imperfections that need to be addressed. Achieving the objective requires understanding the most important design flaw, not considered in ProDoc, which is the very low price of electricity. Additionally, other major problems in design include: a focus on PV when it is not financially viable for most consumers; the expectation that a RESCO sector run by the privately held companies would develop in five years; that small hydro was a viable private sector RESCO model (despite the years of evidence of failure in Tajikistan); and not drawing on lessons learned from similar projects in roughly similar countries.
2. Progress has been very slow and problematic. This has been due primarily to 1) very poor design; 2) COVID-19 that reduced the ability to meet in person with stakeholder and for consultants to travel; 3) Government priorities that sometimes conflict with a focus on this project and at other times focus on only one aspect; and 4) Poor internal project management and 5) High turnover of project managers.
3. The overall rating for project implementation and adaptive management is moderately unsatisfactory (MU). The project's trajectory can be turned around with the steps listed in the following recommendation section and detailed throughout the report.
4. The present project structure and team are inadequate to meet the ambitious workload needed to meet the project objective in the shortened time, caused by the need to compensate for the considerable implementation delay in the initial years.
5. The project has not developed the necessary market demonstration and dissemination strategy that is pivotal to scaling up sustainable investments in green energy. This is critical to meeting targets and goals. The approach so far, and evident in the collaborative effort with UNDP/OFID, is to build it and the private sector will come. This means that it is simply enough to contribute the building of the Green Energy SMEs solution and without additional effort it will be replicated.
6. The project has not done the best job connecting with stakeholders and potential partners with the result that it has not benefited from their experiences, lessons learned, and opportunities for cooperation.
7. The overall progress towards results at the Project Objective level is determined to be MU, moderately unsatisfactory, and not on track to achieve outcomes with urgent attention and adaptive management.
8. Components 2, 3 and 4 require revision. It will be difficult to for Component 2 to come close to meeting its targets unless major changes are made. Even with major changes, it is highly unlikely that the target of 2,000 loans will be reached in the remaining time. Component 3B is too restrictive without any proof for being so. Component 4 does not adequately address the market dissemination or stakeholder outreach.
9. The project is important to the UNDP Country Office, the current project team and stakeholders, who believe in and are willing to actualize the project objective with project assistance.

5.2. RECOMMENDATIONS

Based on the findings and conclusions presented above a limited series of practical and actionable recommendations is directed to the project management team and relevant stakeholders. It is recommended to:

1. Extend the project by 18 months to account for the pressures of COVID, poor design and competing Government priorities, if and only if the recommendations below are followed. The MTR team deems that most of the project targets can be met if additional time is provided and if other important recommendations are followed. Given the amount of funds not utilized due to unavailability of PM and AFA for several months, the budget could be conducive to such an extension.

5.2.1. PROJECT MANAGEMENT

2. **Focus urgent procurement assistance to extend the ICTA contract and hire a new PM.** Momentum was gained during the MTR mission that needs to be built upon and given the time that has already expired, the project team needs to be in place to move the project forward.
3. **Change the project structure to make it more effective** (see Figure 4) The ICTA needs to have a more direct role in the management and supervision of the project recognizing the labour force characteristics, the current salary and the urgent needs of the project. Several problems have occurred because the PM did not follow technical guidance of the ICTA. Moreover, an ICTA will generally have more in-depth management and technical experience than the PM. The ICTA contract modality should accommodate more frequent involvement in-country, with focused deliverables (beyond only consulting and advising) as opposed to current contract terms. The ICTA needs to have more time in country (normally 3 weeks for each trip).

In addition to this change, the project needs to routinely access local technical talent to support the ICTA and PM. There is a budget for local technical expertise but so far, the PM did not take advantage of this. The revised organisation structure also includes a Knowledge Management team recognizing the importance of this team in achieving the overall project objective and in successfully replicating demonstrations in Outcomes 2 and 3.

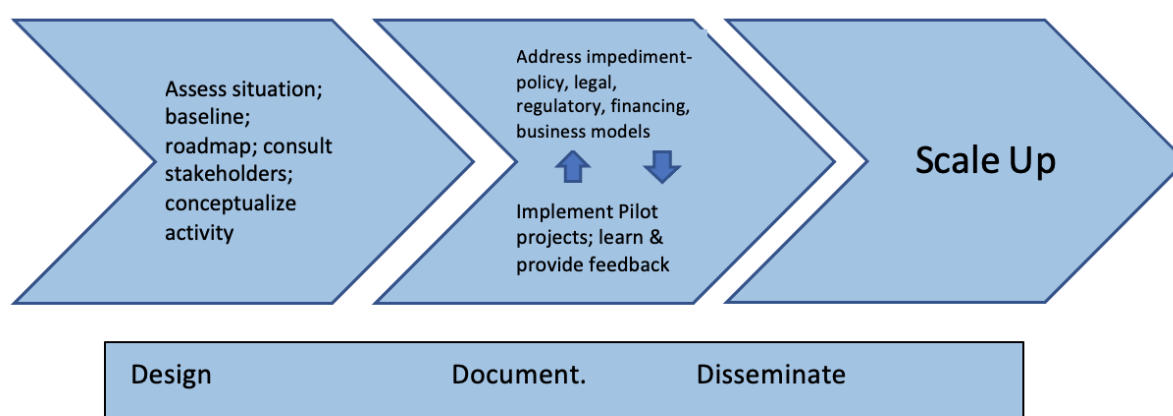
4. **Develop better work planning tools.** The project has suffered because it failed to capitalize on the ICTA observations and comments and develop both a detailed implementation strategy and detailed work plan.
 - The detailed strategy needs to link demonstration, documentation and dissemination of business models, financial products or pilot projects.
 - There needs to be a life of project work plan⁶⁷ and then a detailed annual work plan that tracks every aspect including writing of TORs, procurement, and all aspects of the project and activities. This does not mean that detailed work plans should take the place of the higher-level annual work plans which have their own purpose. But the **typical Mission annual work plan is not a tool to manage the project on a day-to-day basis.**
 - Revise the indicator monitoring plan and incorporate it into project management.
5. The project has not developed the necessary market demonstration and dissemination strategy that is critical to scaling up sustainable investments in green energy. This is critical to meeting

⁶⁷ The ProDoc has a what a life of project work plan which is nothing more than actual planned expenditures but Component over the project's life.

targets and goals. The approach so far, and evident in the collaborative effort with UNDP/OFID, is to build it and the private sector will come. This means that it is simply enough to contribute the building of the Green Energy SMEs solution and without additional effort it will be replicated. The figure below outlines a project process to ensure scale up and benefit from adaptive management.

The project should consider following the four-step process illustrated in Figure 5 to develop, design, pilot, and scale up various activities, with a built-in feedback loop to improve pilot design, making activities ready for scale up and amplification, especially if the Government participates in addressing any gaps in policy, legal, regulatory, or financing matters.

FIGURE 5 PROPOSED PROJECT CYCLE



6. Revise and adjust some of the project logframe indicators and aggregate targets (see section 4.2 for details). A revised project results framework table is included as Annex 6.11.

Objective Outcome	ProDoc Indicator / Target	Suggested Revision
Objective	Indicator 4: Lifetime RE production per technology (MWh). Target of 15,330 MWh solar PV and 43,800 MWh Small Hydro	Combine to 59,100 MWh RE
Outcome 2	Indicator 10: Number of beneficiaries using RE	Number of beneficiaries using RE or EE
Outcome 3	Indicator 12: Number of SWH systems facilitated by the project (in tourism facilities)	Number of GE products facilitated by the project in commercial or industrial uses.
Outcome 3	Indicator 14: Number of people accessed by marketing and awareness raising campaign (including percentage of women)	Move to outcome 4.
Outcome 4	Indicator 15: Number of organizations receiving results of project, including GHG emissions and socio- economic benefits (targeted number to be established during project inception)	Drop.

5.2.2. COMPONENT 1

7. **Sign the Letter of Agreement (LoA) with the Ministry of Energy and Water Resources** so that the substantive Outcome 1 work can begin. This has taken time to come to mutual agreement, as these types of thing so often do, and now it is critical to the project that the LoA be signed. This then puts the onus on the Ministry to start their efforts. To be sure, project resources are needed to augment the Ministry, and therefore item 2 above is recommended. The policy work on building codes (integrating RE/EE into construction & design policy framework) is not part of the present LoA. While the Agency for Construction and Architecture (the counterpart on this policy work) is also ready to begin this work with Project support, UNDP should take this into consideration.
8. **Consider command and control measures including demand side management** in project activities since the price of electricity is so far below actual cost. Working with MoEWR and PE, focus policy and regulations to require some EE measures or to mandate SWH under specific conditions.

5.2.3. COMPONENT 2

9. Based on the recognition that (1) the project does not know enough about MFIs or the target products or target customers and (2) that the consultant's products thus far are poor quality, this Component needs to be redesigned. In order of time, **the following activities are recommended:**

First, hold a roundtable discussion with MFI, green energy supply companies and installers, to understand where the real market demand is and where MFIs and GE suppliers need assistance. All green energy products need to be part of this roundtable. This needs to be targeted such that the outcome represents a "delphi" approach to targeting project assistance.

Second, hire a consultant to conduct a rapid market assessment for the technologies falling out of the delphi roundtable. This should use common financial measures such as payback period and prioritize technologies and consumers.

Third, hire develop the financial products and other assistance needs to support the results of the priority outcomes of the market assessment.

Fourth, narrow the number of MFIs supported to three. The current design envisions working with up to five MFIs. This dilutes project resources and retards scaling up. It is important to concentrate assistance and to select the best MFI candidates.

Fifth, expand assistance activities to MFIs. The assistance provided "should cover product design and training to MFI staff on project appraisal, along with some limited financial resources." MFIs stated that they need assistance in training on technologies and in marketing assistance to "get the word out". The project should consider those activities coming out of the roundtable: Ask MFI's what they need to achieve the results.

Sixth, demonstrate, document, and disseminate component successes. This is a theme that the team brings up repeatedly in the MTR report.

5.2.4. COMPONENT 3

Subcomponent 3A

10. **Conclude agreement with the MoEWR for the project's participation in the Pamir Energy World Bank grant for rural electrification.** The project has an informal agreement with the MoEWR for implementation through the Pamir Energy World Bank grant that needs to be formalized. Delays here might preclude the project from participating in this catalytic work.

11. Drop the focus on SME RESCOs and pilots. Only PE has the balance sheet and history that will allow it to perform RESCO activities in Tajikistan during the duration of this project. The project design was flawed in thinking that SMEs could become RESCOs in five years at the level of village mini-grids. If the project succeeds in cementing its relationship with PE for other village minigrids, then all the RESCO objectives will have been met and a working model will be available in the future when the electricity is priced at cost and the enabling frameworks catalyse GE. The project's assistance to Pamir Energy can now contribute to the first RE mini-grid (Pilot) and pave the way the remaining mini-grids in GBAO that Pamir will build and operate. They will all use the same business model so no additional work on designing pilot business models need to be done. This means the project should drop some RESCO specific activities such as:

- Activity 3.1.3: Prepare RESCO model design: legal and contractual arrangement, financing scheme (based on loan financing, leasing scheme for RE technologies, etc.).
- Activity 3.1.4: Deliver training to relevant stakeholders on RESCO model and identify potential RESCOs.
- Activity 3.1.5: Provide TA to identified RESCOs (preparation of loan application; Monitoring & Evaluation).
- Activity 3.1.6: To develop a subsidy scheme in GBAO.
- Activity 3.1.7: Project implementation, including preparation of technical specification, construction works, and technical and advisory support for implementation of the RESCO model⁶⁸.

These funds can be reprogrammed into replication with PE in other GBAO areas or other Green Energy SMEs project areas.

12. Consider teaming with OSCE on a limited mini-grid effort. OSCE has explored several communities in Khatlon that will not be connected to the grid in the next five years. Each of these communities has some form of existing, albeit degraded, power system. A community based minigrid as OSCE envision would be one form of RESCO and each community has different capabilities and resources to contribute.

Once the project has successfully concluded its agreement on the PE/World Bank Activity, it will have reached many of its main targets and have resources left over. The project might consider programming some of those into the OSCE mini-grid concept. The project would not normally consider these projects because they are high per unit cost of person served and given the project's limited budget, efforts here would not be cost effective unless the project had already reached its targets. The only model that stands a chance of working and being sustainable is the community-based model⁶⁹.

Subcomponent 3B

13. Expand the activities in this subcomponent to cover any consumer that emerges as a priority under Component 2 above. At this point, there is a focus on SWH at tourist facilities without adequate justification. Before committing to tourism facilities or even SWH, understand if there really is a market for this and open this to SWH at any commercial or industrial facility.

5.2.5. COMPONENT 4

14. Develop a communications strategy and plan. The project needs to do a better job of keeping in

⁶⁸ ProDoc paragraph 11.

⁶⁹ See, for example, <https://www.usaid.gov/energy/mini-grids/case-studies/india-island-minigrids/>

touch with stakeholders and communicating the success of the project. This is one of the main findings of the MTR. To do this, it should enlist the help of a communication specialist to work alongside the ICTA and PM.

6.1. MIDTERM REVIEW TERMS OF REFERENCE

BASIC CONTRACT INFORMATION

Location: Dushanbe, Tajikistan

Application Deadline: 18 September 2020

Type of Contract: Individual Contract

Post Level: International Consultant

Languages Required: English

Starting Date: 15 January 2021

Duration of Initial Contract: Four months from 15 January 2021 to 15 May 2021

Expected Duration of Assignment: 27 working days (17 home-based days, 8 days on mission, 2 travel days)

BACKGROUND

A. Project Title

UNDP/GEF Green Energy Small Medium Enterprises (SMEs) Development Project in Tajikistan

B. PROJECT DESCRIPTION

This is the Terms of Reference (ToR) for -the Midterm Review (MTR) of the full-sized UNDP-supported GEF-financed project titled **Green Energy Small and Medium Enterprises (SMEs) Development Project** (PIMS#5476) implemented through the UNDP Direct Implementation Modality (DIM), which is to be undertaken in 2021. The project started on the 18 July 2018 and is in its third year of implementation. This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* ([Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf)⁷⁰).

The objective of the project “Green Energy Small Medium Enterprises (SMEs) Development Project” (hereafter referred to as “Green Energy SMEs project”) is to facilitate the transformation of Tajikistan’s energy sector, in particular the emergence of independent energy entrepreneurs, which can offer affordable and sustainable energy products and services to the rural population. The Green Energy SMEs project is designed to scale up private investments in RE resources, with focus on solar energy. This objective is planned to be achieved through the implementation of four components of the Green Energy SMEs project:

Component 1: Creation of Enabling policy and regulatory framework and capacity development for GE SMEs - to address policy and technology risks faced by GE SMEs in Tajikistan. The Green Energy SMEs project will strengthen the policy and regulatory framework for the sustainable energy products and services market.

Component 2: Providing Access to finance for GE SMEs and/or energy service users – to facilitate access to affordable finance for households, SMEs and other end-users wishing to invest in EE/RE products and/or services. TA will be provided to partner Micro-finance Institutes (MFIs) and other local finance organizations to develop and promote standard loan products. GEF investment support will be provided in the form of an interest rate subsidy.

Component 3: Development of business models for GE SMEs consists. This component focuses on the supply chain to develop and improve GE products and services, and bring them to the market, including through the provision of targeted investment support to innovative

⁷⁰ http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf

and scalable business models for GE products/service delivery. It consists of two sub-components:

- **Sub-Component 3A:** Promoting solar energy development for off-grid communities, the cost of grid expansion to which is prohibitively expensive.
- **Sub-Component 3B:** Facilitating investment in solar water heating (SWH) by tourism facilities and other SMEs.

Component 4: Knowledge Management and Monitoring and Evaluation (M&E) - will include collection, analysis and sharing information about GE costs and benefits, as well as by monitoring and evaluating project results (including GHG emission reductions), documenting and disseminating best practices and lessons learnt.

C. MTR Purpose

The MTR will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document and assess early signs of project success or failure with the goal of proposing and recommending changes to the project in order to strengthen the project over the second half of the project lifetime and, if necessary, set the project on-track in order to increase the chances of the project achieving its objective and intended results by the end of the project.

The MTR will also review the project's strategy, and its risks to sustainability. The main output of the MTR will be specific recommendations for adaptive management to improve the project over the second half of its implementation.

DUTIES AND RESPONSIBILITIES

D. MTR APPROACH & METHODOLOGY

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

The MTR team will review all relevant sources of information including documents prepared during the preparation phase (i.e., PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure (SESP)), the Project Document, project reports including Annual Project Review/PIRs, project budget revisions, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based review. The MTR team will review the baseline GEF focal area Core Indicators/Tracking Tools submitted to the GEF at CEO endorsement, and the midterm GEF focal area Core Indicators/Tracking Tools that must be completed before the MTR field mission begins.

The MTR team is expected to follow a collaborative and participatory approach⁷¹ ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), the Nature, Climate and Energy (NCE) Regional Technical Advisor, direct beneficiaries, and other key stakeholders.

Engagement of stakeholders is vital to a successful MTR. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to UNDP Tajikistan, UNDP Istanbul Regional Technical Advisor (RTA) on Climate Change Mitigation, GE SME project team, key experts and consultants in the subject area, SC, project stakeholders, academia, local governments, etc. Additionally, the International Consultant of the MTR will accompany the National Consultant of the MTR. The MTR team is expected to conduct a mission to Tajikistan in early 2021 of a total of 8 working days in country and 2 travel days within the country (if the COVID-19 pandemic outbreak) with the direction: Dushanbe – Murghab (GBAO) – Dushanbe. This mission should

⁷¹ For ideas on innovative and participatory Monitoring and Evaluation strategies and techniques, see [UNDP Discussion Paper: Innovations in Monitoring & Evaluating Results](#), 05 Nov 2013.

include time spent in Dushanbe, but it should also visit to project sites and the site where project investments have been or are to be made (e.g. – Pamir Energy).

The specific design and methodology for the MTR should emerge from consultations between the MTR team and the above-mentioned parties regarding what is appropriate and feasible for meeting the MTR purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The MTR team must, however, use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the MTR report.

The final methodological approach including interview schedule, field visits and data to be used in the MTR should be clearly outlined in the Inception Report and be fully discussed and agreed between UNDP, stakeholders and the MTR team.

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

E. DETAILED SCOPE OF THE MTR

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

1. Project Strategy

Project Design:

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

Results Framework/Logframe:

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

2. Progress Towards Results

- Review the logframe indicators against progress made towards the end-of-project targets; populate the Progress Towards Results Matrix, as described in the *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for the project objective and each outcome; make recommendations from the areas marked as "not on target to be achieved" (red).
- Compare and analyse the GEF Tracking Tool/Core Indicators at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

3. Project Implementation and Adaptive Management

Management Arrangements

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

Work Planning

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

Finance and co-finance

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

1.

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

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

Project-level monitoring and evaluation systems

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?

- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?
- Review the extent to which relevant gender issues were incorporated in monitoring systems. See Annex 9 of *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.

Stakeholder Engagement

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

Social and Environmental Standards (Safeguards)

- Validate the risks identified in the project's most current SESP, and those risks' ratings; are any revisions needed?
 - Summarize and assess the revisions made since CEO Endorsement/Approval (if any) to:
 - The project's overall safeguards risk categorization.
 - The identified types of risks⁷² (in the SESP).
 - The individual risk ratings (in the SESP).
 - Describe and assess progress made in the implementation of the project's social and environmental management measures as outlined in the SESP submitted at CEO Endorsement/Approval (and prepared during implementation, if any), including any revisions to those measures. Such management measures might include Environmental and Social Management Plans (ESMPs) or other management plans, though can also include aspects of a project's design; refer to Question 6 in the SESP template for a summary of the identified management measures.
2. A given project should be assessed against the version of UNDP's safeguards policy that was in effect at the time of the project's approval.

⁷² Risks are to be labeled with both the UNDP SES Principles and Standards, and the GEF's "types of risks and potential impacts": Climate Change and Disaster; Disadvantaged or Vulnerable Individuals or Groups; Disability Inclusion; Adverse Gender-Related impact, including Gender-based Violence and Sexual Exploitation; Biodiversity Conservation and the Sustainable Management of Living Natural Resources; Restrictions on Land Use and Involuntary Resettlement; Indigenous Peoples; Cultural Heritage; Resource Efficiency and Pollution Prevention; Labor and Working Conditions; Community Health, Safety and Security.

Reporting

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

Communications & Knowledge Management

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

4. Sustainability

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

Financial risks to sustainability:

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

Socio-economic risks to sustainability:

- Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project

benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long-term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

3.

Institutional Framework and Governance risks to sustainability:

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

Environmental risks to sustainability:

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

Conclusions & Recommendations

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

Additionally, the MTR consultant/team is expected to make **recommendations** to the Project Team. Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report's executive summary. The MTR consultant/team should make no more than 15 recommendations total.

Ratings

The MTR team will include its ratings of the project's results and brief descriptions of the associated achievements in an *MTR Ratings & Achievement Summary Table* in the Executive Summary of the MTR report. See the TOR Annexes for the Rating Table and ratings scales.

F. EXPECTED OUTPUTS AND DELIVERABLES

The MTR team shall prepare and submit:

- MTR Inception Report: MTR team clarifies objectives and methods of the Midterm Review no later than 2 weeks before the MTR mission. To be sent to the Commissioning Unit and project management. Completion date: by early February 2020
- Presentation: MTR team presents initial findings to project management and the Commissioning Unit at the end of the MTR mission. Completion date: by end of March 2021
- Draft MTR Report: MTR team submits the draft full report with annexes within 3 weeks of the MTR mission. Completion date: by end of March 2021
- Final Report*: MTR team submits the revised report with annexed and completed Audit Trail detailing how all received comments have (and have not) been addressed in the final MTR report. To be sent to the Commissioning Unit within 1 week of receiving UNDP comments on draft. Completion date: by end of May 2021

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

G. Institutional Arrangements

The principal responsibility for managing this MTR resides with the Commissioning Unit. The Commissioning Unit for this project's MTR is UNDP Country Office in Tajikistan.

The Commissioning Unit will contract the consultants and ensure the timely provision of per diems and travel arrangements within the country for the MTR team and will provide an updated stakeholder list with contact details (phone and email). The Project Team will be responsible for liaising with the MTR team to provide all relevant documents, set up stakeholder interviews, and arrange field visits, as required.

H. Duration of the Work

The work should start in January 2021 and finish by the end of May 2021. The total duration of the MTR will be 27 working days over the period 15th December 2020 to 15th March 2021 and broken down into 18 home based days, 2 travel days, and 8 days based in Tajikistan. The mission to Tajikistan depends on whether the global situation with COVID-19 allows for flights to and from Dushanbe without 2 weeks quarantine required. The preference will be to include a mission as part of the work but if it is not possible then the work will need to be undertaken remotely. A final decision on whether or not there will be a mission to Tajikistan will be made when the assignment starts.

I. Duty Station

Travel:

- International travel will be required to Tajikistan during the MTR mission;
- The BSAFE training course must be successfully completed prior to commencement of travel; Herewith is the link to access this training: <https://training.dss.un.org/courses/login/index.php> . These training modules at this secure internet site is accessible to Consultants, which allows for registration with private email.
- Individual Consultants are responsible for ensuring they have vaccinations/inoculations when travelling to certain countries, as designated by the UN Medical Director.
- Consultants are required to comply with the UN security directives set forth under <https://dss.un.org/dssweb/>
- All related travel expenses will be covered and will be reimbursed as per UNDP rules and regulations upon submission of an F-10 claim form and supporting documents.

REQUIRED SKILLS AND EXPERIENCE

J. Qualifications of the Successful Applicants

The team composition will consist of one international consultant and one national consultant who will jointly carry out the assignment. The International Consultant will be responsible for the entire MTR process and for the respective MTR deliverables mentioned above in line with this ToR, with inputs from the project. The national consultant will be responsible for providing summary analyses of all project reports in English, for data collection including baseline data, and for assisting with scheduling and participating in interviews.

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

The selection of consultants will be aimed at maximizing the overall "team" qualities in the following areas:

Education

- A Master's degree in engineering, energy, environment, economics, law, business administration or other closely related field

Experience

- At least 10-years work experience and proven track record with policy advice and/or project development/implementation in green energy (renewable energy and/or energy efficiency) in transition economies;
- Practical experience (within last five years) in mid-term or final performance evaluation of at least one international and/or regional projects funded by multilateral agencies including experience with SMART indicators; Experience in performance evaluation of such projects within United Nations system will be considered as an asset; Evaluation in CIS countries will be considered as an asset;
- Competence in working with projects that have financial mechanisms;
- Demonstrated understanding of issues related to gender; experience in gender sensitive evaluation and analysis;
- Familiarity with relevant Tajikistan's policy and regulations and standards is an asset but not required;
- Demonstrable analytical skills.

Language

- Fluency in written and spoken English;
- Working knowledge of written and spoken Russian will be considered as an asset but not required.

K. Ethics

The MTR team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This MTR will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The MTR team 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 MTR team must also ensure security of collected information before and after the MTR and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information, knowledge and data gathered in the MTR process must also be solely used for the MTR and not for other uses without the express authorization of UNDP and partners.

L. Schedule of Payments

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

Criteria for issuing the final payment of 40%

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

4.

APPLICATION PROCESS

M. Recommended Presentation of Offer

- a) **Letter of Confirmation of Interest and Availability** using the [template](#)⁷³ provided by UNDP;
- b) **CV** and a **Personal History Form** ([P11 form](#)⁷⁴);
- 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.

5.

N. Criteria for Selection of the Best Offer

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.

⁷³

<https://intranet.undp.org/unit/bom/pso/Support%20documents%20on%20IC%20Guidelines/Template%20for%20Confirmation%20of%20Interest%20and%20Submission%20of%20Financial%20Proposal.docx>

⁷⁴

http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc

6.2. MTR EVALUATIVE MATRIX

Evaluative Questions	Indicators	Sources	Methodology
PROJECT STRATEGY:			
Are the problems and underlying assumptions addressed by the project still relevant?	<ul style="list-style-type: none"> Validity and completeness/gaps in problem analysis, barriers analysis and assumptions in ProDoc 	<ul style="list-style-type: none"> Project Documents Studies and Analyses Key Informants 	<ul style="list-style-type: none"> Desk Review Secondary Literature KII
Were lessons from other relevant projects properly incorporated into the project design?	<ul style="list-style-type: none"> Barriers analysis and assumptions in ProDoc Alignment with past similar work 	<ul style="list-style-type: none"> Project Documents Studies and Analyses Key Informants 	<ul style="list-style-type: none"> Desk Review Secondary Literature KII
Is the project concept in line with national priorities?	<ul style="list-style-type: none"> Alignment with GoT policies, strategies & plans. 	<ul style="list-style-type: none"> ProDoc GoT policies, strategies & plans 	<ul style="list-style-type: none"> Desk Review KIIs
Were key stakeholders & decision makers consulted during design and their perspectives addressed?	<ul style="list-style-type: none"> Stakeholder consultations during PPG and of actual consultations 	<ul style="list-style-type: none"> ProDoc PPG Report Key Informants 	<ul style="list-style-type: none"> Desk Review KIIs
How were relevant gender issues considered during the project design?	<ul style="list-style-type: none"> Coverage of gender issues in the project strategy Gender disaggregated indicators and baseline data in the Results Framework 	<ul style="list-style-type: none"> ProDoc PPG SESP Results Framework Budget 	<ul style="list-style-type: none"> Desk Review
Are there any major areas of concern or areas for improvement regarding the original project design?	<ul style="list-style-type: none"> Concerns raised to UNDP, Project or GoT Overall assessment of the project based on analysis of the progress towards results, project implementation and adaptive management and sustainability. 	<ul style="list-style-type: none"> Progress Reports Key Informants Minutes of meetings MTR Findings 	<ul style="list-style-type: none"> Desk Review KIIs Analysis and synthesis of all MTR findings.
Results Framework/Logframe			
Is the Project Results Framework logical comprehensive and realistic and are the indicators and targets SMART and relevant to planned outcomes with complete baselines ?	<ul style="list-style-type: none"> Completeness and coherence of Results Framework Alignment of Results Framework with Project Strategy narrative Ability to measure progress towards outcomes (i.e., quality of indicators, baselines, and targets) Systematic monitoring of indicators 	<ul style="list-style-type: none"> ProDoc Results Framework Progress Reports/PIRs SMART patrolling reports Other monitoring reports Tracking tools Other project reports Project Team 	<ul style="list-style-type: none"> Desk Review KIIs Field visits
Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?	<ul style="list-style-type: none"> Level of progress on delivery of outcomes and objectives Implementation challenges 	<ul style="list-style-type: none"> ProDoc Progress reports/PIRs Other reports 	<ul style="list-style-type: none"> Desk Review KIIs Field visits

	<ul style="list-style-type: none"> reported progress reports and/or project partners 	<ul style="list-style-type: none"> Project Team UNDP staff MoEWR staff 	
	Indicators	Sources	Methodology
Are there any benefits of the project, which are not reflected in the logframe or captured by the indicators and in the progress reporting?	<ul style="list-style-type: none"> Presence of unexpected positive outcomes and impacts 	<ul style="list-style-type: none"> Progress reports/PIRs Project Team UNDP staff MoEWR staff Pamir Energy PVT Sector MFIs 	<ul style="list-style-type: none"> Desk Review KIIs Field visits
Is project monitoring adequately capturing gender and broader development aspects?	<ul style="list-style-type: none"> Meaningful indicators for gender and development integrated in Results Framework and effectively monitored 	<ul style="list-style-type: none"> Results Framework Progress Reports/PIRs Monitoring reports Tracking tools 	<ul style="list-style-type: none"> Desk Review
PROGRESS TOWARDS RESULTS			
What has been the progress towards planned targets for the outcome and objective indicators in the Results Framework?	<ul style="list-style-type: none"> Indicator achievement versus milestones and targets (mid-term and completion). 	<ul style="list-style-type: none"> ProDoc Results Framework Progress Reports/PIRs Other monitoring reports Tracking tools 	<ul style="list-style-type: none"> Desk review Assessment using Progress Towards Results Matrix and following UNDP-GEF Guidance for MTRs
What changes have taken place since the start of the project in relation to the four components?	<ul style="list-style-type: none"> Current status compared to baseline 	<ul style="list-style-type: none"> Progress Reports/PIRs Monitoring reports Tracking tools 	<ul style="list-style-type: none"> Desk review
What are the main barriers affecting the project's ability to achieve its intended results (outcomes and objectives)?	<ul style="list-style-type: none"> Analysis of other MTR findings Obstacles identified by key stakeholders 	<ul style="list-style-type: none"> Progress reports/PIRs Project Team UNDP staff MoEWR staff Pamir Energy 	<ul style="list-style-type: none"> Desk review KIIs Field visits
What are the main successes and achievements of the project, and how can the project further expand these benefits?	<ul style="list-style-type: none"> Results, which are on or above target Unplanned benefits/results as reported by key stakeholders and/or in project progress reports and reasons for these 	<ul style="list-style-type: none"> Progress reports/PIRs Project Team UNDP staff MoEWR staff NGOs / 	<ul style="list-style-type: none"> Desk review KIIs Field visits

		Community members	
PROJECT IMPLEMENTATION AND ADAPTIVE MANAGEMENT			
Management Arrangements			
How effective and efficient has project management and execution been: Has the project met its annual work plan, related procurement, and expense disbursement targets?	<ul style="list-style-type: none"> • Clarity, transparency, and timeliness of decision-making and reporting processes (e.g., reporting lines, Project Board structure, TORs, frequency of meetings) • Nature and rationale for any significant changes made to project strategy and/or implementation • Realism in reporting and focus on risks and mitigation in reporting. • Level of execution of project budget 	<ul style="list-style-type: none"> • Progress reports/PIRs • Project Board meeting minutes • Other monitoring reports • Project Team • UNDP project managers • Pamir Energy 	<ul style="list-style-type: none"> • Desk review • KIIs • Field visits
	Indicators	Sources	Methodology
How effective has UNDP been at providing support and guidance to the Project Team and MoEWR?	<ul style="list-style-type: none"> • Nature and frequency of UNDP oversight. • Types of guidance provided and clarity of guidance • Responsiveness to requests from Project Team or MoEWR (funds disbursement, technical support, political support to overcome challenges, etc.) 	<ul style="list-style-type: none"> • Project Reports • Meeting Minutes • Project Staff • UNDP Staff • MoEWR Staff 	<ul style="list-style-type: none"> • Desk Review • KIIs
What is the gender balance of the project staff?	<ul style="list-style-type: none"> • Allocation of staff by gender. 	<ul style="list-style-type: none"> • Project Reports • Meeting Minutes 	<ul style="list-style-type: none"> • Desk Review
What has or is being done to ensure gender balance?	<ul style="list-style-type: none"> • Gender plan 	<ul style="list-style-type: none"> • Project Reports • Meeting Minutes • Project Staff 	<ul style="list-style-type: none"> • Desk Review • KIIs
What is the gender balance of the project board?	<ul style="list-style-type: none"> • Allocation of board by gender. 	<ul style="list-style-type: none"> • Project Reports • Meeting Minutes 	<ul style="list-style-type: none"> • Desk Review
What has or is being done to ensure gender balance?	<ul style="list-style-type: none"> • Gender plan 	<ul style="list-style-type: none"> • Project Reports • Meeting Minutes • Board Members 	<ul style="list-style-type: none"> • Desk Review • KIIs
Work Planning			
Has implementation been timely?	<ul style="list-style-type: none"> • Delays in start-up and implementation • Reason for any delays • Rate of progress towards planned targets 	<ul style="list-style-type: none"> • ProDoc • Annual workplans and budgets • Progress reports/PIRs • Project Board Meeting Minutes • Project Team • UNDP and MoEWR staff 	<ul style="list-style-type: none"> • Desk Review • KIIs

Are work-planning processes results-based?	<ul style="list-style-type: none"> • Annual workplans that are clearly linked to outcomes 	<ul style="list-style-type: none"> • Annual workplans and budgets 	<ul style="list-style-type: none"> • Desk Review
Is the project's results framework used as an effective management tool?	<ul style="list-style-type: none"> • Number and nature of reviews/updates to Results Framework in response to changes in implementation context • Alignment between Results Framework and Annual Workplans 	<ul style="list-style-type: none"> • ProDoc • Results Framework • Annual workplans and budgets • Project Team 	<ul style="list-style-type: none"> • Desk Review • KIIs
Finance and Co-finance			
Are project activities implemented in a cost-effective manner?	<ul style="list-style-type: none"> • Use of implementing partners and stakeholders' own resources and capacities • Strategic use of co-financing • Appropriateness of budget allocations to different planned outputs 	<ul style="list-style-type: none"> • Annual workplans and budgets • Audit reports • Progress reports/PIRs • Project Board Meeting minutes • Project Team • UNDP and Partner staff 	<ul style="list-style-type: none"> • Desk Review • KIIs
Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?	<ul style="list-style-type: none"> • Variance between planned and actual expenditure explained satisfactorily • Budget revisions are appropriate and relevant • No significant audit findings on financial management and expenditures • Budgets are clear and easy to understand 	<ul style="list-style-type: none"> • Annual workplans and budgets • Audit reports • Project Team • UNDP staff 	<ul style="list-style-type: none"> • Desk Review • KIIs
Is co-financing being used strategically to help the objectives of the project?	<ul style="list-style-type: none"> • Co-financing complements/contributes to existing plans and priorities of the partners • Alignment and effective use of co-financing ensured through annual work planning and budgeting processes 	<ul style="list-style-type: none"> • Financial statements • Annual workplans and budgets • Progress reports/PIRs • Project Team • UNDP staff • MoEWR staff • Co-finance Partners 	<ul style="list-style-type: none"> • Desk Review • KIIs • Complete co-financing monitoring table with inputs from the project, MoEWR and UNDP
Project-level monitoring and evaluation systems			
Is the monitoring system appropriate, effective, and participatory?	<ul style="list-style-type: none"> • Nature and quality of monitoring processes • Alignment of monitoring systems with good practice and national systems • Project partners / staff 	<ul style="list-style-type: none"> • Monitoring processes & tracking tools • Progress reports/PIRs • Baseline 	<ul style="list-style-type: none"> • Desk Review • KIIs

	<ul style="list-style-type: none"> involved in monitoring Types, quality and use of monitoring data to inform project implementation & management 	<ul style="list-style-type: none"> information Project Team UNDP staff MoEWR staff 	
Are sufficient financial resources allocated to M&E and are these used effectively or are additional tools and resources required?	<ul style="list-style-type: none"> Adequacy of resources allocated to M&E Effectiveness of M&E tools and processes 	<ul style="list-style-type: none"> Financial statements Annual workplans and budgets Project Team UNDP staff MoEWR staff 	<ul style="list-style-type: none"> Desk Review KIIs
How are Gender issues included in the monitoring systems	<ul style="list-style-type: none"> Disaggregation by gender Targets by gender Presence of gender sensitive indicators 	<ul style="list-style-type: none"> Monitoring processes & tracking tools Progress reports/PIRs Baseline information 	<ul style="list-style-type: none"> Desk Review
Stakeholder Engagement			
Has the project developed and leveraged the necessary and appropriate partnerships with direct & tangential stakeholders	<ul style="list-style-type: none"> National & local government stakeholders are actively engaging with the project and support of project objectives Number of partnerships/collaborations with RESCOs/ NGOs on relevant issues Extent of public participation and awareness about the project. 	<ul style="list-style-type: none"> Progress reports/PIRs PE Project Team UNDP staff MoEWR staff ADB/GIZ UNDP CP GEF SGP EBRD ClimAdapt 	<ul style="list-style-type: none"> Desk Review KIIs
Do local and national government stakeholders support the objectives of the project and do they continue to have an active role in project decision-making that supports efficient and effective project implementation?	<ul style="list-style-type: none"> National & local government stakeholders are actively engaging with the project and support of project objectives Number of partnerships/collaborations with other NGOs on relevant issues Extent of public participation and awareness about the project 	<ul style="list-style-type: none"> Progress reports/PIRs PE Project Team UNDP staff MoEWR staff ADB/GIZ UNDP CP / GEF SGP EBRD ClimAdapt 	<ul style="list-style-type: none"> Desk Review KIIs
	Indicators	Sources	Methodology
To what extent has stakeholder involvement and public awareness	<ul style="list-style-type: none"> Stakeholder and public consultations implementation 	<ul style="list-style-type: none"> Progress reports/PIRs Project Team 	<ul style="list-style-type: none"> Desk Review KIIs

contributed to the progress towards achievement of project objectives?		<ul style="list-style-type: none"> • UNDP and MoEWR staff • Partners and Communities 	
How does the project engage women and girls and is the project likely to have the same positive and/or negative effects on all?	<ul style="list-style-type: none"> • ProDoc Gender Action plan 	<ul style="list-style-type: none"> • ProDoc • Minutes of meetings • Key Informants 	<ul style="list-style-type: none"> • Desk Review • KIIs
Are there legal, cultural, or religious constraints on women's participation in the project?	<ul style="list-style-type: none"> • Barriers/constraints analysis in the ProDoc 	<ul style="list-style-type: none"> • Project Documents • Studies and Analyses • Key Informants 	<ul style="list-style-type: none"> • Desk Review • KIIs
Social and Environmental Standards (Safeguard)			
Are the project risks still valid or do any rating need revision?	<ul style="list-style-type: none"> • Validity and completeness/gaps in risk analysis and assumptions in ProDoc 	<ul style="list-style-type: none"> • Project Documents • Studies and Analyses • Key Informants 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field Visits
<p>What revisions have been made since CEO Endorsement/Approval to:</p> <ul style="list-style-type: none"> • The project's overall safeguards risk categorization. • The types of risks. • The individual risk ratings. 	<ul style="list-style-type: none"> • Changes in risk factors since CEO approval. 	<ul style="list-style-type: none"> • CEO Endorsement • Project Documents • MTR Analysis 	<ul style="list-style-type: none"> • Desk Review
What progress made in the implementation of the project's social and environmental management measures	<ul style="list-style-type: none"> • Analysis of ESMP 	<ul style="list-style-type: none"> • ESMP • Project Documents 	<ul style="list-style-type: none"> • Desk Review
Reporting			
Is project reporting sufficient, appropriate, and adding value to project delivery?	<ul style="list-style-type: none"> • Adaptive management changes reported to the Project Board (major ones presented to Board for approval) • Quality of PIR and Quarterly progress reporting including PIR ratings and response to PIR ratings • Documentation, internalization and sharing of 	<ul style="list-style-type: none"> • Progress reports/PIRs • Project Board meeting minutes • Project Team • UNDP staff • MoEWR staff 	<ul style="list-style-type: none"> • Desk Review • KIIs

	project lessons		
Communications and Knowledge Management			
Is there effective communication with internal and external project communication with different stakeholder groups?	<ul style="list-style-type: none"> • Communication strategy • Frequency and clarity of communication with different stakeholder groups at national and subnational levels, including within MoEWR • Mechanisms of external communication public outreach and awareness generation and their effectiveness 	<ul style="list-style-type: none"> • ProDoc • Progress reports/PIRs • Project Board meeting minutes • Communication materials • Website • Project Team • UNDP and MoEWR staff • NGOs 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits
SUSTAINABILITY			
	Indicators	Sources	Methodology
Does the project have a satisfactory risk assessment and management system in place?	<ul style="list-style-type: none"> • Relevance and significance of risks recorded in Project Document, UNDP Social and Environment Screening and the UNDP Risk Management Module • Gaps in identified risks particularly over subsidies and financial resources. • Appropriateness of risk mitigation and management measures and effectiveness of implementation. 	<ul style="list-style-type: none"> • ProDoc • PIRs • Risk log from ATLAS Risk Management Module • Project Team • UNDP staff • MoEWR staff • NGOs 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits
Financial Risks to Sustainability			
How will project results including systems and processes put in place by the project be sustained financially after the end of the project and scaled up and replicated?	<ul style="list-style-type: none"> • Potential sources of government finance to sustain and further build on project results. 	<ul style="list-style-type: none"> • Progress reports/PIRs • ATLAS Risk Log • Project Team • UNDP staff • MoEWR staff • Other government staff • NGOs • Community members 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits
Socio-economic Risks to Sustainability			
Are there any social or political risks that may jeopardize sustainability of project outcomes?	<ul style="list-style-type: none"> • Degree of key stakeholder ownership of project objective and outcomes 	<ul style="list-style-type: none"> • Progress reports/PIRs • ATLAS Risk Log • Project Team 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits

		<ul style="list-style-type: none"> • UNDP staff • MoEWR staff • NGOs / Community members 	
Institutional Framework and Governance Risks to Sustainability			
Do the legal frameworks, policies, governance structures and processes support post-project continuation of the results achieved, processes initiated, and systems put in place by the project?	<ul style="list-style-type: none"> • Supportiveness of the legal framework • Appropriateness and supportiveness of governance structures and processes • Status of institutional capacity by the end of the project • Potential for developing influential project champions • Potential for mainstreaming PAs/project strategies into government planning processes at national and subnational levels 	<ul style="list-style-type: none"> • Progress reports/PIRs • ATLAS Risk Log • Project Team • UNDP staff • MoEWR staff • Other government staff • NGOs • Community members 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits
Environmental Risks to Sustainability			
Are there any environmental factors that could undermine and reverse the project's outcomes and results, including factors that have been identified by project stakeholders?	<ul style="list-style-type: none"> • Likelihood of natural hazards (drought, floods, earthquakes) • Climate change impacts 	<ul style="list-style-type: none"> • Progress reports/PIRs • ATLAS Risk Log • Project Team • UNDP staff • MoEWR staff • NGOs • Community members 	<ul style="list-style-type: none"> • Desk Review • KIIs • Field visits

6.3. EXAMPLE QUESTIONNAIRE OR INTERVIEW GUIDE USED FOR DATA COLLECTION

Questions
Introduction
What is your position?
What is your relationship to the project and for how long have you been involved?
<p>Where you involved in the design of the project or were you consulted prior to project design? If no, skip to question?</p> <p>a. If yes, please describe the project conceptualization process to the best of your knowledge</p> <p>b. Who are the key project stakeholders/beneficiaries? Describe how stakeholders were involved in the design process.</p> <p>c. Were lessons from other relevant projects properly incorporated into the project design?</p>
1. Project strategy
1.1 Project Design
1.1.1 How important is the problem addressed by the project?
1.1.1 Have the assumptions made during project design proven relevant? Have they evolved? (How?)
1.1.2 How effective is the selected strategy to achieve intended results? (Were lessons from previous projects integrated into project design?)
1.1.3 To what extent is the project responding to the national priorities? Has this changed since project design?
1.1.4 Are there any major areas of concern or areas for improvement regarding the original project design?
1.1.5 In your opinion, were all people affected or concerned by the project consulted during project design?
1.1.6 To what extent were gender issues taken into account during project design? (Were any activities undertaken to assess gender-related needs for the project during project design?)
1.2 Results Framework/ Logframe
1..2.1 Could you please explain in your own words the objectives of the project, its targets and their related timeframes? (for consultants: focus only on those related to their involvement in the project)
1.2.1 How realistic are they?
1.2.2 Are there effects on development or on the environment that are not measured by current indicators?
2. Progress towards results
2.1 To what extent have the expected outputs, outcomes and objectives of the project been achieved so far? (provide list, as needed)
2.2 Briefly describe the main successes of the project and what can be done to expand or scale the benefits?

2.2 What are the main barriers to address to achieve expected results? What are the main opportunities to leverage?
3. Project implementation and adaptive management
3.1 Management arrangements
3.1.1 Are the roles and responsibilities of the PMU, UNDP, MoEWR, PSC and other partners clearly established?
Questions
3.1.1 In your opinion, is decision-making timely and transparent? How responsive are partners to changing needs of the project?
3.1.2 How would you describe the quality of management responses to project team members' inquiries and needs?
3.1.2 On a scale of 1 to 5, how would you rate the quality of execution by UNDP? Why? 1 2 3 4. 5 Very Ineffective Somewhat Ineffective Neutral Effective. Effective Somewhat Very Effective
3.1.2 On a scale of 1 to 5, how would you rate the quality of execution by MoEWR? Why? 1 2 3 4. 5 Very Ineffective Somewhat Ineffective Neutral Effective. Effective Somewhat Very Effective
3.1.3 On a scale of 1 to 5, how would you rate the quality of support by UNDP? Why? 1 2 3 4. 5 Very Ineffective Somewhat Ineffective Neutral Effective. Effective Somewhat Very Effective How can it be improved?
3.1.4 Do the MoEWR and/or UNDP and other partners have the capacity to deliver benefits to or involve women? If yes, how?
3.1.5 What is the gender balance of project staff? What steps have been taken to ensure gender balance in project staff?
3.1.6. What is the gender balance of the Project Board? What steps have been taken to ensure gender balance in the Project Board?
3.2 Work Planning
3.2.1 Have there been any delays in implementation? If so, could you describe their cause and how many months of delay occurred?
3.2.3 How often do you use the project's logframe for management and/or M&E? How do you use it?
3.3 Finance and co-finance?
3.3.1 Is the project being implemented in a cost-effective manner? If not, why?

3.3.2 Have there been any variations between planned and actual expenditures? If yes, which ones and why?
3.3.3 Are you familiar with the project's financial controls? If yes, do they allow management to make informed decisions about the budget and flow of funds? How often do you see financial reports?
3.3.4 What (and how much) co-financing is the project leveraging? How has this evolved since project design?
3.4 Project-level M&E systems
3.4.1 Is the M&E system operational and effective?
3.5 Stakeholder Engagement
3.5.1. Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
3.5.2 How do national and local government stakeholders support the project and how are they active in the decision-making process and implementation?
3.5.2 Please comment on the overall strengths and weaknesses of the approach adopted by the project regarding stakeholder participation and implementation.
3.5.3 How effective has stakeholder participation and public awareness contributed to achieving project objectives?
1 2 3 4 5 Very Ineffective Somewhat Ineffective Neutral Somewhat Effective Very Effective Why do you rate it that way?
3.5.4 How does the project engage with women and girls and is it likely to have the same effects on all persons?
3.5.4. What barriers exist to women participating in the project and what can be done to enhance gender benefits?
3.6 Reporting
3.6.1 How are lessons from adaptive management processes shared with the Project Board? How many have been shared?
3.6.2. How has the project team addressed poorly rated PIRs?
3.6.3 Did you receive any documentation about lessons drawn from adaptive management processes undertaken by the project?
3.6.3 Could you provide examples where these lessons were used by your organization?
3.7 Communication and Knowledge Management
3.7.1 Are internal communications from the project to stakeholders regular and effective? Why do you say that?
3.7.1 Are all stakeholders included? If not, who is left out and why?
3.7.1 How is this communication used? Was it useful?
3.7.2 How is the project using external communications and which channels are being used?
3.7.4 What knowledge activities and/or products has the project developed and how are they being used?
4. Sustainability
4.1 Have the risks assessed during project design proven relevant? Have they evolved? (How?)

4.2 Which activities would require continued financial support after the end of the project for project outcomes to be maintained?
4.2 Which outcomes should normally be maintained without additional resources?
4.3 What social and/or political conditions could affect the sustainability of project outcomes? How?
4.4 What frameworks/policies/governance structures/processes could potentially affect the sustainability of project benefits? How?
4.4 What frameworks/policies/governance structures/processes are lacking to ensure the sustainability of project benefits? Why?
4.5 Are there any biophysical that could affect the sustainability of project outcomes? How?

6.4. RATINGS SCALES

Ratings for Progress Towards Results: (one rating for each outcome and for the objective)		
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as “good practice”.
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.
Ratings for Project Implementation & Adaptive Management: (one overall rating)		
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as “good practice”.
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.
Ratings for Sustainability: (one overall rating)		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project’s closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

6.5. MTR MISSION ITINERARY

MTR Mission Agenda

Location and period: Tajikistan, 03 March 2021 – 13 March 2021

TIME	DESCRIPTION	VENUE/INFO	MODE
Thursday, 11 February 2021			
16:00 – 17:00	<p>Introductory meeting on MTR Mission (Context, Approach, Work Plan, Travel and Logistics):</p> <p>UNDP Istanbul Regional HUB: Mr. John O'Brian, Regional Technical Advisor</p> <p>UNDP Tajikistan Country Office: Mr. Christophoros Politis, Deputy Resident Representative Ms. Nargizakhon Usmanova, Team Leader / Energy, Environment and Disaster Risk Reduction Ms. Malika Khakimova, Programme Associate</p> <p>UNDP Project Team (GE SMEs Development): Mr. Paata Janelidze, Chief Technical Advisor (International) Mr. Khurshed Kholov, UNDP E&E Programme Manager/National Coordinator, UNDP GEF HCFC Project/Small Grants Programme</p> <p>MTR Mission Team: Mr. Matthew Addison, International Consultant Mr. Shukhrat Igamberdyev, National Consultant</p>	Virtual	Zoom:
Tuesday, 23 February 2021			
16:00 – 16:45	Meeting with Mr. Robert Pasicko, International Consultant on the design of the Project – UNDP/GEF “Green Energy Small and Medium Enterprises Development Project in Tajikistan”.	Virtual	Zoom:
Wednesday, 24 February 2021			
16:00 – 16:45	Meeting with Mr. Sergei Chutkov, ACTED Tajikistan, Country Director	Virtual	Zoom:
Tuesday, 02 March 2021			
14:00 – 14:45	<p>Meeting with Mr. Shuhrat Abdulloev, Local Project Financial Expert, Promotion of Green Evaluation via financial institutions</p> <p>(“Assignment of renewable energy products of financial institutions of Tajikistan as well as development of green energy products for SMEs and individual consumers”).</p>	Virtual	Zoom:
Wednesday, 03 March 2021			
02:25am	Arrival of the International Consultant on MTR – Mr. Matthew Addison, Dushanbe Airport – Hotel “Hilton”.		

10:00 11:30	–	Discussion/Briefing on project activities with UNDP Country Office Senior Management: Mr. Christophoros Politis, Deputy Resident Representative, UNDP Tajikistan Ms. Nargizakhon Usmanova, UNDP Team Leader/Energy, Environment and Disaster Risk Reduction, UNDP Tajikistan	UNDP CO, 39 Aini Street, Dushanbe	In-person
11:30 12:30	–	Lunch		
12:30 13:30	–	Meeting with the MTR National Consultant, Mr. Shukhrat Igamberdyev, and the Green Energy SMEs project Team: Mr. Khurshed Kholov, UNDP E&E Programme Manager, and Mr. Parvin Muminov, UNDP E&E Programme Assistant	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
13:30 14:30	–	Meeting with Mr. Farukh Kasimov, Former Project Manager of the Green Energy SMEs Development Project.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
15:00 16:00	–	Meeting with the Committee of Environmental Protection (CoEP): Ms. Nilufar Nazirova, Chief Specialist, Department of International Relations, CoEP; and Mr. Turakul Murodov, Head of the Project Implementation Unit of the CoEP	5/1 Shamsi Street, Dushanbe	In-person
16:30 17:30	–	Meeting with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (Ref.: “World Comfort Project”)	GIZ Office Qatari Diar Complex, Business Center Jayhoon, 4 th FLOOR. 2/1 Huvaiddulloev Str., Dushanbe.	In-person
Thursday, 04 March 2021				
09:00 10:00	–	Meeting with Mr. Atouullo Rajabov, Deputy Head of Public Investment Management Department, General Department for the Public Debt and Public Investment Attraction, Ministry of Finance	3 Academicians Rajabovs Street, Dushanbe	In-person
11:00 12:00	–	Meeting with OJSC Pamir Energy: Ms. Sahar Ibrahim and her team: Feasibility study and installation of PV systems in Murgab district.	Serena Hotel, 14 Rudaki Avenue, Dushanbe	In-person
12:15 13:15	–	Lunch		
14:00 15:00	–	Meeting with Mr. Muhammadi Boboev, Senior Economics Officer, Asian Development Bank (ADB)	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom

16:00 – 17:00	– Meeting with LLC Green Technologies: Mr. Dominik Zwicky, Lead Expert Rural Energy & Disaster Risk Reduction	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
Friday, 05 March 2021			
8:30 – 9:30	Meeting with Ms. Sadykova Shoir Muzaffarovna, Bank 'Arvand', Chairman.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom
9:30 – 10:30	– Mr. Akbarov Bahodur Saidghanievich, MDO 'Imon International', General Director.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom
10:45 – 11:30	– Meeting with the Ministry of Finance / Project Implementation Center: Mr. Masrur Mansurov, PIC, Ministry of Finance Mr. Ilhom Nozimov, PIC, Ministry of Finance	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
12:00 – 13:00	– Lunch		
14:00 – 15:30	– Meeting with Mr. Firdavs Mayunusov, CJSC MDO 'HUMO.	148/1 Nemat Karabaev Street, Dushanbe	In-person
16:00 – 17:00	– Meeting with Mr. Khurshed Kholov, UNDP E&E Programme Manager/National Coordinator, UNDP GEF HCFC Project/Small Grants Programme	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
Saturday, 06 March 2021			
8:00 – 17:00	– Field Visits: Contract 154-2019-RFQ-UNDP-EEP Lot-1 LLC Green Technologies (7 off-grid districts); Contract 154-2019-RFQ-UNDP-EEP Lot-2 LLC ABIR (4 off-grid districts): <ul style="list-style-type: none"> ▪ School №3 - Jamoat Sabo, Shahrinav, DRS - Installed 3 kW solar power system with 800AH, 12V batteries; ▪ Handicraft - Village S. Ayni, Shahrinav region, DRS - Installed 100-liter solar water heating system; ▪ Clothing Manufacture- Village Rudaki, Shahrinav district, DRS - installed 1 kW solar power system with 400 AH, 12V batteries; ▪ Women's Group: Food Processing Workshop; ▪ Tourist Company/Site – Hunter's Lodge 	Shahrinav district, Direct Rule Districts Region Accompanied by: Mr. Mansur Kudusov (Focal Person from JSC Systemavtomatika) +992 904 210 001	In-person

	in Kuran, Shahrinav district.		
6.			
Sunday, 07 March 2021 – Office/Home-Based Work on the MTR			
Monday, 08 March 2021 – International Women’s Day (Holiday)			
Tuesday, 09 March 2021			
10:00 – 11:00	Meeting with UNICEF in Dushanbe: Mr. Ruslan Ziganshin, Water, Sanitation and Hygiene Specialist; and Mr. Rauf Yuldoshev, WASH/WatSan Engineer	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
11:00 – 12:00	Meeting with Mr. Hokim Gayurzod, NGO ‘Bargi Sabz’, Director (Involved in promotion of PV systems and solar pumps, Feasibility Study for Alichur/Murghab Project).	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
12:30 – 13:30	Lunch		
14:00 – 15:00	Meeting with the representatives of the Committee of Architecture and Construction under the GoRT: Mr. Umarzoda Ulugbek, Mr. Salomov Murodbek.	Huseynzoda Str. Dushanbe	In-person
16:00 – 17:00	Meeting with the representatives of EBRD Tajikistan Country Office: Ms. Sitara Bobojanova, Program Director “Advise for Small Businesses”	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom
17:15 – 18:15	Meeting with Mr. Suhrob Raupov, Former Project Manager / “Green Energy SMEs Development Project”	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
Wednesday, 10 March 2021			
9:00 – 10:00	Meeting with the Aga-Khan Foundation (AKF): Ms. Sahar Ibrahim, OJSC Pamir Energy; Mr. Kishwar Abdulishoev, AKF; Mr. Javlon Hamdamov, AKF;	AKF Office in Dushanbe (TajikPotrebSoyuz)	In-person
11:00 – 12:00	Meeting with the OJSC Systemavtomatika (available RES technologies): Mr. Umarkhon Madvaliev, General Director; and Mr. Mansur Kudusov, Deputy General Director.	62 Druzhba Narodov Street, Dushanbe	In-person
12:30 – 13:30	Lunch		
15:00 – 16:00	Meeting with the Ministry of Energy and Water Resources: Mr. Jamshed Shoimzoda, First Deputy Minister Mr. Sorbon Kholmuhamadzoda, Head of Electroenergy Department	5/1 Shamsi Street, Dushanbe	In-person
16:30 – 17:30	Meeting with the World Bank Team: Ms. Farida Mamadaslamova; Mr. Jan-Peter Olters; Ms. Zarina Abdulaliev.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom

18:00 19:00	–	Meeting with Ms. Nargizakhon Usmanova, Team Leader/Energy, Environment and Disaster Risk Reduction, UNDP Tajikistan (CO)	39 Aini Street, Dushanbe	In-person
Thursday, 11 March 2021				
09:00 10:00	–	Meeting with Mr. Ruslan Sadykov, Swiss Cooperation Office, Swiss Agency for Development and Cooperation (SDC) – Ref.: Subsidizing electricity tariffs in GBAO.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	Zoom
11:00 12:00	–	Meeting with the Programme Assistant of the Energy and Environment Programme: - Mr. Parvin Muminov	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
12:00 13:00	–	Lunch		
14:00 15:00	–	Meeting with Mr. Rustam Khakimov, LLC Homsol, Director.	50A Bukhara Street, Dushanbe	In-person
15:30 16:30	–	Meeting with Mr. Mirzo Pochoev, INGO GERES	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	In-person
16:30 17:30	–	Preparation of Presentation for the MTR Mission De-Briefing: Mr. Matthew Addison, International Consultant, and Mr. Shukhrat Igamberdyev, National Consultant.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	
Friday, 12 March 2021				
9:00 12:00	–	Preparation of Presentation for the MTR Mission De-Briefing: Mr. Matthew Addison, International Consultant, and Mr. Shukhrat Igamberdyev, National Consultant.	UNDP Project Office (Lotus), 5/1 Lohuti Street, Dushanbe	
12:00 13:00	–	Lunch		
14:30 15:30	–	Meeting with the representatives of CJSC 'The First Microfinance Bank' (FMFB): Mr. Yenten Lama; and Mr. Bezhan Kholiknazarov.	10 Pushkina Street, Dushanbe	In-person
16:00 17:00	–	De-briefing for the UNDP Tajikistan Country Office Senior Management Team: Mr. Christophoros Politis, Deputy Resident Representative; and Ms. Nargizakhon Usmanova, UNDP Team Leader/Energy, Environment and Disaster Risk Reduction.	39 Aini Street, Dushanbe	In-person
Saturday, 13.03.2021				
Early Morning		Departure (Mr. Matthew Addison, MTR International Consultant)		

6.6. LIST OF PERSONS INTERVIEWED

#	Type of Stakeholder	Stakeholder (Entity & Individuals)	Contact Person/ Information
Government Agencies (Ministries, Committees, etc)			
1	Government (Lead National Project Counterpart, Project Board Co-Chair)	Ministry of Energy and Water Resources (MoEWR): Mr. Jamshed Shoimzoda, First Deputy Minister of Energy and Water Resources; Mr. Sorbon Kholmuhammadzoda, Head of Electro-Energy Department.	Mr. Sorbon Kholmuhammadzoda 5/1 Shamsi Street, Dushanbe +992 372 353566 sorbon_89@inbox.ru
2	Government (GEF Operational Focal Point, UNFCCC Focal Point)	Committee for Environmental Protection under the GoRT (CEP): Ms. Nilufar Nazirova, Chief Specialist, Department of International Relations; Mr. Turakul Murodov, Head of the Project Implementation Unit.	5/1 Shamsi Street, Dushanbe +992 372 364059 +992 44 6003541 nilufar-nazirova@mail.ru
3	Government	Ministry of Finance (MoF): Mr. Atouullo Rajabov, Deputy Head of Public Investment Management Department, General Depart of the Public Debt and Public Investment Attraction. Mr. Masrur Mansurov, Project Implementation Center (PIC) Mr. Ilhom Nozimov, Project Implementation Center (PIC)	3 Akademikov Rajabovikh Street, Dushanbe, Tajikistan +992 44 6003541 investdiv@mail.ru
4	Government	Committee of Architecture and Construction of the GoRT (CoAC) – SUE “Scientific research institute on construction and architecture”: Mr. Umarzoda Ulugbek, and Mr. Salomov Murodbek. (Ref.: Activity 1.1.3. – Revising and preparing new regulatory documents introducing requirements for minimum energy performance, mandatory installation of RE systems in new buildings)	
Private Sector – Suppliers/Service Providers (Local)			
5	Private sector – Suppliers/ Service Providers (1 st RESCO model in Tajikistan)	OJSC Pamir Energy: Mr. Sahar Ibrahim and Co, Ms. Nazira Khaydarova, Manager of Tajikistan Rural Electrification Project; Ref.: Feasibility Study and Installation of PV systems in Murghab District	Ms. Rayhon Jonbekova Serena Hotel, 14 Rudaki Avenue, Dushanbe +992 3522 26655 rayhon.jonbekova@pamiren.ergo.com

6	Private sector – Suppliers/ Service Providers	LLC “Green Technologies”, Mr. Dominic Zwicky, Lead Expert/Rural Energy & Disaster Risk Reduction (Ref.: sub-project Lot-1-GreenTech)	Mr. Dominic Zwicky +992 933 743 090 +992 918 99 10 12 Dominik.Zwicky@welthungerhilfe.de
7	Private sector – Suppliers/ Service Providers	Public Organization (PO) “Bargi Sabz” (Ref.: Promotion of PV systems and solar pumps, sub-project Lot-1-GreenTech), Mr. Hokim Gayurzod, Director.	
8	Private sector – Suppliers/ Service Providers	LLC “Homsol”, Mr. Rustam Hakimov, Director.	+992 908 003 006 +992 908 826 002 rkh@homsol.org
9	Private sector – Suppliers/ Service Providers	JSC “Systemavtomatika” (Ref.: Available RES Technologies, sub-project #42-Systemavtomatika, sub-project #96-Systemavtomatika) Mr. Umarkhon Madvaliev, General Director. (Ref.: Center for Renewable Energy and Energy Efficiency in Dushanbe. Active since 2016 – regional information hub, service provider for RE and EE solutions, exhibition hall, training and services center for RE systems. Platform for dissemination of GEF Project experience and lessons learnt for CA region)	Mr. Mansur Qudusov +992 44 600-46-01 +992 44 600 4605 umarkhon@mail.ru
Private Sector – Micro-Finance Institutions (MFIs)			
10	Private sector (MFI)	CJSC Bank “Arvand”: Ms. Sadikova Sh. M., Bank Arvand, Chairman of the bank	Ms. Gulnora Kosimova Gulnora.Kosimova@arvand.tj +992 927 772 884
11	Private sector (MFI)	CJSC “The First Microfinance Bank” (FMBT): Mr. Yenten Lama; and Mr. Bezhan Kholiknazarov.	Mr. Khonik Khonikov khonik.khonikov@fmfb.com.tj
12	Private sector (MFI)	CJSC MDO “Humo”, Mr. Firdavs Mayunusov	Ms. Mavzuna Mukhamadiev +992 37 239 19 56 Mavzuna@humo.tj
13	Private sector (MFI)	MDO “Imon International”: Mr. Akbarov B.S., General Director (Ref.: Partner to both ADB and EBRD projects – operation with green products)	Ms. Aziza Ganieva +992 37 27 97 03 aganieva@imon.tj
Development Partners – IFIs, Development Agencies			
14	Private Sector (IFI)	European Bank for Reconstruction and Development (EBRD), Country Office: Ms. Sitora Bobojanova, Program Director “Advise for Small Businesses”	VEFA Center 37 Bokhtar Street, Dushanbe https://ebrdgeff.com/tajikistan/
15	Development Partner	World Bank (WB). Ref.: UNDP-WB cooperation within the Project.	

		Ms. Farida Mamadaslamova, Energy Expert. (Before 2019 worked with Pamir Energy, participated in discussions on UNDP-WB cooperation). Mr. Jan-Peter Olters; Ms. Zarina Abdulalieva.	
16	Development Partner	Swiss Cooperation Office (SCO), Swiss Agency for Development and Cooperation (SDC) - Ref.: Subsidizing electricity tariffs in GBAO (subsidizes directly to consumers) Mr. Ruslan Sadykov.	burgi.roos@eda.admin.ch
17	Development Partner	Asian Development Bank (ADB). Mr. Muhammadi Boboev, Senior Economics Officer.	Madina Mamadsafoeva Operations Assistant Tajikistan Resident Mission Asian Development Bank +992 37 221 0558 (office) www.adb.org
18	Development Partner	Aga-Khan Foundation (AKF): Ms. Sahar Ibrahim, OJSC Pamir Energy; Mr. Kishwar Abdulalishoev, AKF; Mr. Javlon Hamdamov, AKF;	
19	Development Partner	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (Ref.: "World Comfort Project")	+992 98 783 00 50 (mobile) + 992 44 6005 205 (office) frank.kuklinski@giz.de http://www.giz.de
20	Development Partner	United Nations Children's Fund (UNICEF): Mr. Ruslan Ziganshin, Water, Sanitation and Hygiene Specialist; Mr. Rauf Yuldoshev, WatSan Engineer	
NGOs – Local			
21	NGO (International)	GERES (Ref.: Educational EE Center): Mr. Mirzo Pochoev.	Mr. Mirzo Pochoev m.pochoev@geres.eu
22	NGO (International)	ACTED Country Office in Tajikistan, Mr. Sergei Chutkov, Country Director (Ref.: Promoting energy efficiency and renewable energy production in the community-based tourism sector in Central Asia , including Tajikistan).	Mr. Sergei Chutkov, sergey.chutkov@acted.org , +992 37 224 6425 (office) +992 918 177 492 (mobile)
Individuals – Consultants, Experts, Specialists			
23	International Consultant	Mr. Robert Pasicko, International Consultant on the Design of the Project – "Green Energy SMEs Development Project"	robert.pasicko@undp.org
24	Project Consultant (Local)	Mr. Shukhrat Abdulloev, Local Project Financial Expert, Promotion of Green Evaluation via financial institutions.	shuhrat.abd77@gmail.com
25	Former Project Manager	Mr. Farukh Kasimov, Former Project Manager, UNDP "Green Energy SMEs Development Project"	farukhkassimov@gmail.com

26	Former Project Manager	Mr. Suhrob Raupov, Former Project Manager, UNDP “Green Energy SMEs Development Project”	suhrobraupov@hotmail.com
27	Consultant	Sheryl Loh, Farukh Kasimov, and Kairat Shalabay Frankfurt School	S.Loh@fs.de f.kasimov@int.fs.de k.shalabay@int.fs.de
UNDP – IRH, Tajikistan CO Senior Management, Project Team			
28	UNDP Istanbul Regional Hub	John O’Brien, Regional Technical Advisor	john.obrien@undp.org
29	UNDP Country Office – Senior Management	Mr. Christophoros Politis, Deputy Resident Representative Ms. Nargizakhon Usmanova, Team Leader / Energy, Environment and Disaster Risk Reduction	UNDP Country Office, 39 Aini Street, Dushanbe christophoros.politis@undp.org nargizakhon.usmanova@undp.org
30	UNDP Energy & Environment Project Team	Mr. Khurshed Kholov, Energy & Environment Programme (E&EP) Manager Mr. Parvin Muminov, Programme Assistant, E&EP Mr. Paata Janelidze, Chief Technical Advisor (International)	UNDP Project Office Lohuti Street #5, Dushanbe khurshed.kholov@undp.org parvin.muminov@undp.org paata.janelidze@gmail.com
SITE VISITS:			
Contract 154-2019-RFQ-UNDP-EEP Lot-1 LLC Green Technologies (7 off-grid districts); Contract 154-2019-RFQ-UNDP-EEP Lot-2 LLC ABIR (4 off-grid districts):			
31	School №3 - Jamoat Sabo, Shahrinav, DRS - Installed 3 kW solar power system with 800AH, 12V batteries;		
32	Handicraft - Village S. Ayni, Shahrinav region, DRS - Installed 100-liter solar water heating system;		
33	Clothing Manufacture- Village Rudaki, Shahrinav district, DRS - installed 1 kW solar power system with 400 AH, 12V batteries;		
34	Women’s Group: Food Processing Workshop;		
35	Tourist Company/Site – Hunter’s Lodge in Kuran, Shahrinav district.		

6.7. LIST OF DOCUMENTS REVIEWED

1. PIF
2. UNDP Initiation Plan
3. UNDP Project Document
4. UNDP Social and Environmental Screening Procedure (SESP)
5. Project Inception Report
6. All Project Implementation Reports (PIR's)
7. Annual work plans
8. Audit reports
9. Finalized GEF focal area Tracking Tools/Core Indicators at CEO endorsement and midterm (Blank Template)
10. Oversight mission reports
11. All monitoring reports prepared by the project
12. Financial and Administration guidelines used by Project Team
13. Project operational guidelines, manuals and systems
14. UNDP country/countries programme document(s)
15. Minutes of the Steering Committee Meetings and other meetings (i.e. Project Appraisal Committee meetings)
16. Project site location maps

Other Documents

7. ADB, 2013. Demand Analysis for Smart Green Energy Solution, Access to Green Finance Project
8. ADB, 2013. Report and Recommendations of the President, Access to Green Finance Project
9. OECD, 2016. Financing Climate Action in Tajikistan.
10. UNDP 2010. Accelerating Progress Toward the MDGs by Improving Access to Energy.
11. UNDP, 2011. Energy Efficiency Master Plan for Tajikistan.
12. UNDP, 2015. Midterm Review of GEF Project: Technology Transfer and Market Development for Small-Hydropower in Tajikistan.
13. UNECE, 2013. Research study for the Republic of Tajikistan within the framework of the project "The use of clean, renewable and / or alternative energy technologies for rural areas in Central Asia.
14. UNEP, GNESD. 2014 Renewable energy-based rural electrification: The Mini-Grid Experience from India.
15. UN ESCAP, 2012. Promoting Energy Efficiency Investment for Climate Change Mitigation and Sustainable Development
16. Understanding Energy Poverty – Case Study: Tajikistan
17. USAID. Mini-grids Case Studies. <https://www.usaid.gov/energy/mini-grids/case-studies>
18. World Bank, 2014. Assessment of Household Energy Deprivation in Tajikistan.
19. World Bank, 2019. Tajikistan Rural Electrification Project, Project Appraisal Document.

20. World Bank. 2020. Energy Loss Reduction Project, Project Performance Assessment Report.

6.8. SIGNED UNEG CODE OF CONDUCT FORM

UNEG Code of Conduct for Evaluators/Midterm Review Consultants⁷⁵

Evaluators/Consultants:

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

MTR Consultant Agreement Form

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

Name of Consultant: Matthew W Addison

Name of Consultancy Organization (where relevant): _____

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

Signed at Istanbul, Turkey (Place) on December 12, 2020 (Date)

Signature: Matthew W. Addison

⁷⁵ <http://www.unevaluation.org/document/detail/100>

Evaluators/Consultants:

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

MTR Consultant Agreement Form

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

Name of Consultant: Shukhrat Igamberdyev

Name of Consultancy Organization (where relevant): _____

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

Signed at Dushanbe, Tajikistan (Place) on January 3, 2021 (Date)

Signature:



6.9. MTR FINAL REPORT CLEARANCE FORM

Midterm Review Report Reviewed and Cleared By:

Commissioning Unit (M&E Focal Point)

Name: _____

Signature: _____

Date:

Regional Technical Advisor (Nature, Climate and Energy)

Name: _____

Signature: _____

Date:

6.10. REVISED MONITORING PLAN

The Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Objective from the Project Results Framework	Indicator 1	Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women	Project team based on project progress reports and official documents confirming partner selection and signed partnership agreements	Annually Reported in DO tab of the GEF PIR	Project team	Official documents confirming partner selection and signed partnership agreements	Commitments and capacities in place at IP to monitor implementation Risk: Private sector partner may be unwilling to make publicly available information about funding
	Indicator 2	Extent of change in modern energy coverage by users	Contracts with end-users for provision of energy services/products	Annually Reported in DO tab of the GEF PIR	Project team and partners (SMEs, MFIs, RESCOs)	Partners' substantial report and project progress report	Responsibility for data collection should be incorporated in the partnership agreements with SMEs, MFIs and RESCOs Risk: Signature of the contract with end-user may not necessarily lead to improved energy coverage (i.e. in terms of technology failure and/or insufficient capacities to operate it properly).

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	Indicator 3	GHG emission reductions, tCO ₂	GHG emission reductions will be estimated based on project-specific methodology to be developed under Component 4, including specification of data sources and collection methods	Annually	Project Manager	Project progress report	Data collection will be imbedded in the TOR of all relevant sub-contractors as per methodology requirements Risk: Baseline data may not be available at all and require additional investment in their collection
	Indicator 4	Increase in installed RE capacity (MW for electricity, m ² for SWH)	MoEWR based on official information on installed RE plants and from data collected in Components 2 and 3B for SWH.	Annually	Project Manager	Project progress report	Willingness of partners to provide the data.
	Indicator 5	Lifetime RE production potential (MWh)	Estimated based on the installed RE capacity from the MoEWR	Annually	Project Manager	Project progress report	Willingness of partners to provide the data.
							Risk: Insufficient capacities of the implementing partner to collect data

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project Outcome1	Indicator 1	Status of by-laws enabling implementation of the Energy Efficiency Law	Implementing partner, subsequent to adoption of Law	Annually Reported in DO tab of the GEF PIR	Project Manager	Project progress report	Implementing partner will take necessary action to have the Law adopted Risk: status of by-laws is not official until they are formally adopted
	Indicator 2	Number of officials trained on enabling framework areas for Green Energy (including women)	Project team based on records of the conducted training	Quarterly	Project Manager	Reports from training workshops	Inclusion in the TOR of the project team members responsible for training organization responsibilities regarding collection of required data (number of participants with breakdown by gender) Risk: high staff turnover in public agencies may jeopardize results because of trained officials leaving their positions

	Indicator 3	Additional decentralized RE-based capacity enabled by the designed financial incentive scheme, MW	Implementing partner based on official information on installed RE plants	Annually	Project Manager	Project progress report	Willingness of the Implementing partner to provide data Risk: Insufficient capacities of the implementing partner to collect data
--	-------------	---	---	----------	-----------------	-------------------------	--

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	Indicator 4	Status of system of compliance checks and enforcement of performance standard for EE/RE	Project team will provide report on status of implementation and enforcement of performance standards for EE/RE	Reported in DO tab of the GEF PIR	Project Manager	Project progress report	<p>Commitments and capacities in place at Implementing Partner to monitor implementation of the performance standard</p> <p>Risk: full data and information about real status of compliance and enforcement maybe impossible or too costly to collect</p>
Project Outcome 2	Indicator 1	Number and volume of green loans approved for EE or RE products designed or facilitated by the Green Energy SMEs Project	Partner MFIs	Quarterly	Project Responsible Partners (MFIs)	Project progress report	<p>Responsibilities for data collection are clearly specified in the partnership agreements with MFIs</p> <p>Risk: MFIs maybe unwilling/not in a position (due to confidentiality clause) to share full information about signed loans</p>

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	Indicator 2	<p>Number of beneficiaries using RE and EE, including women. Beneficiaries are defined:</p> <p>(1) for loans to resident energy consumers as the number of residential loans multiplied by the average household size.</p> <p>(2) For loans to commercial facilities, this requires more thought and would be determined based on the work of the international consultant recommended to help the project.</p>	Partner MFIs	Quarterly	Project Responsible Partners (MFIs)	Partner Banks annual report	<p>Commitments and capacities in place at MFIs to monitor implementation</p> <p>s</p>

Project Outcome3	Indicator 1	Installed new RE-power generation capacity based on RESCO model, MW	Pamir Energy LLC and OSCE Community based RESCOs	Reported in DO tab of the GEF PIR	RESCOs	Project progress report	Responsibilities for data collection are clearly specified in the partnership agreements with RESCOs Risks: Delay in providing information from RESCOs
	Indicator 2	Number of SWH systems facilitated by the project	GE SMEs – “certified” by the project	Quarterly	Project team	Project progress report	Capacities in place at SMEs to monitor implementation Risks: SME may not be willing to disclose all information regarding their clients
	Indicator 3	Number of people with improved access to energy (including share of women). For RESCOs, this is the number of residential customers multiplied by the average household size. For SWH, follow the same Component 2 methodology .	Project team	Quarterly	Project Manager	Project progress report	Responsibilities for data collection are clearly assigned within project team Risk: not enough data about baseline energy access level in targeted community may jeopardize monitoring of project result

	Indicator 4	<p>Number of people reached out by marketing and awarenessraising campaign</p> <p>Recommended to move this to Outcome 4.</p>	Project team based on records of the conducted market research and conducted campaigns	Quarterly	Project Manager	Reports from M&A campaigns	<p>Inclusion in the TOR of the project team members responsible for PR responsibilities regarding collection of required data</p> <p>Risk: double-counting people reached by the campaign (monitoring methodology has to account for this risk)</p>
--	-------------	--	--	-----------	-----------------	----------------------------	---

Project Outcome 4	Indicator 1	<p>Number of organizations receiving results of project, including GHG emissions and socio- economic benefits</p> <p>Recommended to drop this or make it equal to the value of Indicator 4 in component 3.</p>	Project team based on records of the conducted market research and conducted campaigns	Reported in DO tab of the GEF PIR	Project Manager	Project progress report	<p>Responsibilities for data collection are clearly assigned within project team</p> <p>Risk: it will not be possible to estimate/count all organizations only those directly reached out, but further result dissemination impact ("word of mouth", etc) can't be monitored</p>

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Mid-term GEF Tracking Tool	N/A	N/A	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After 2 nd PIR submitted to GEF		Completed GEF Tracking Tool	All mandatory indicators from the GEF CCM Tracking tool have been incorporated in the project result framework. Assuming that M&E system in place to collect data and report on project result framework, it should be sufficient to report on GEF TT data Risk: Project team doesn't understand the requirements/indicators of the CCM tracking tool (risk has to be addressed at the inception workshop)
Terminal GEF Tracking Tool	N/A	N/A	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After final PIR submitted to GEF		Completed GEF Tracking Tool	All mandatory indicators from the GEF CCM Tracking tool have been incorporated in the project result framework.

							Assuming that M&E system in place to collect data and report on project result framework, it should be sufficient to report on GEF TT data
Mid-term Review	N/A	N/A	To be outlined in the MTR inception report	Submitted to GEF same year as 3 rd PIR	Independent evaluator	Completed MTR	Translation costs and travel costs included in budget.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Environmental and Social risks and management plans, as relevant.	N/A	N/A	Updated SESP and management plans Environmental and Social Management Plans (ESMP) for moderate risk projects to be developed during the project inception period.	Annually During inception period	Project Manager UNDP CO	Updated SESP ESMP	N/A Risk: ESMP implementation may require specific technical skills and qualification from the project team (provisions have to be made in terms of bringing qualified experts on board and/or training to responsible staff)

6.11. REVISED PROJECT RESULTS FRAMEWORK TABLE

	Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Component/Outcome 1 Enabling policy and regulatory framework and capacity development for green energy SME	Number of officials trained (including number of women)	0	20 (5)	50 (15)	Staff turn-over in the Government is insignificant and trained people remain in their functions
	Additional decentralized RE-based capacity enabled by the designed financial incentives scheme, MW	None existing	0.35 MW	2.0 MW	Commitment of the Government to establish dedicated financial incentive scheme.
	Status of system of compliance checks and enforcement of performance standard for selected EE/RE products	None existing	Draft developed and sent to decision-makers	Final version approved by decision-makers	At least basic capacities exist to enforce performance standards Commitment of relevant enforcement agencies to implement standards
Component/ Outcome 2 Access to finance for green energy SMEs and/or energy service users	Number and volume (US\$) of green loans approved (including those for women-led SMEs)	0	500 loans / US\$ 650,000 (at least 25 loans to women-led SMEs)	2,000 loans/ US\$ 2,600,000 (at least 100 loans to women-led SMEs)	Willingness and ability to pay for, at least, basic energy service provision remains at baseline level MFIs are interested and capable of introducing green loans
	Number of beneficiaries using RE (including number of women)	0	4,000 (2,500)	16,000 (10,000)	
Component/ Outcome 3	Installed new RE-power generation capacity based on RESCO model, MW	0	0.35 MW	0.75 MW	Commitment of Pamir Energy to co-finance and replicate the project

Business models for greenenergy	Number of SWH systems facilitated by the project	0	20	100	Tourism industry stakeholders and GE suppliers are interested in collaboration
	Number of people with improved access to energy (including percentage of women)	0	4,000 (60% women)	17,867 (60% women)	Co-financing realized
Component/ Outcome 4 Knowledge Management and M&E	Number of organizations receiving results of project, including GHG emissions and socio- economic benefits (targeted number to be established during project inception)	None	None	100% of identified participating stakeholder organizations	Responsibility for data collection are clearly assigned and responsible entities have adequate capacities and access to data Required data are available and/or can be collected with reasonable amount of effort
	Number of people accessed by marketing and awareness raising campaign (including percentage of women)	N/a	1,000,000 (60% women)	3,000,000 (60% women)	Partners (NGOs and Inform-centers) remain committed to support PR and awareness raising campaign