



## Executive summary

Renewable energy for rural development 2+

Mid-term review

Mozambique

Authors: Helene Rask Grøn, José Chiburre

Organisation: Technopolis Group, Paris

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# 1 Presentation of the evaluation

This is the executive summary of the mid-term review (MTR) report of the Project “Renewable Energy for Rural Development 2+” funded by Enabel in collaboration with FUNAE and INIR. The project was initiated in 2018 as a continuation of the “Renewable Energy for Development Project 1”. By late 2020, a component for solar powered irrigation (SPIS) was added resulting in a change in the name of the programme to “Renewable Energy for Rural Development 2 +” (RERD2+). The Project is scheduled for completion by the end of 2024.

The purpose of this mid-term review (MTR) is to support the project towards a successful completion. The work was carried out between 17 April 2023 and 15<sup>th</sup> September 2023 and has included the desk review of documents, field visits to the sites of implementation 8<sup>th</sup> May -1<sup>st</sup> June, as well as extensive interviews and triangulation of data, observations, collected views to formulate findings.

In line with the ToR, the MTR has focused on the following dimensions:

- Review and recommendations toward steering of the Project (strategically and operationally)
- Concept of an exit strategy (to review and recommend how exit is integrated in the implementation right from the beginning)
- Learning: what lessons requires elevation to strategic decisions and identifying practices worthy of repetition or to be avoided, as well as attention to monitoring system in place
- Matters that possibly need reorientation in order to successfully contribute to the achievement of the outcome.

The analytical process has been divided into three complementary phases: inception, field work and analysis. Questions have been presented, debated and triangulated based on a large desk review and interviews with a wide range of stakeholders both in Maputo and in the field.

The MTR work has been carried out by a team of independent consultants Ms. Helene Rask Grøn (Technopolis) and Mr José Chiburre (Particip). The findings and conclusions are the views of the Consultants and do not necessarily represent the views of Enabel, FUNAE or INIR.

# 2 Results and conclusions

## 2.1 Results

The construction of mini-grids in support of rural electrification was and is appreciated by the Government of Mozambique. It is highly relevant and in line with national policies and plans. The plans are also fully in line with the development goals of Enabel and the Belgian development cooperation.

The specific Objective of this component of the intervention is to *‘increase access to energy in rural areas by investments in renewable energy systems and support mechanisms ensuring sustainability’*. At the time of the MTR, the mini-grids have not yet been completed. There is therefore no increased access to energy. However, this is likely to be achieved in 2023 or early 2024. Currently, the mini-grids are not necessarily sustainable as payment rates are very low. In 2023, a revision to the law has made out-sourcing management of mini-grids possible, including allowing for flexible tariffs. The sustainability of the current investments depends on the future management and tariff structure that will be applied.

The logical framework was not updated after the inclusion of the new component on solar-powered irrigation. The delivery of SPIS is behind schedule and it is too early to measure the component's contribution to the specific objective.

The mini-grid component has exceeded its targets delivering five solar mini-grids against the original plan for two to three mini-grids. The component is likely to achieve the output of installations. Assuming the installations comply with agreed standards and a conducive management model is agreed, then it is also likely that the mini-grids will be technically and financially sustainable. The component has also delivered a number of awareness consultations as well as number of feasibility studies. Energy planning training outputs have already been achieved. The project has successfully trained the national Gender Focal point person recruited by FUNAE and supported the training of local focal points. However, the project has been slow to take advantage of these skills and slow to integrate gender awareness and gender-based business planning as potential business cases at the mini-grid sites.

While the project has shown high flexibility and innovative management to identify mini-grid sites and ensure the procurement of equipment, the process has been very long and resource demanding. The net result of the process is the recruitment of two different contractors, each with a sub-contractor, a supervising engineer based in the USA and a sub-contractor in Mozambique. Adding these six companies to an already complex communication process has led to situations of miscommunication and reduced coherence in appreciation of outputs, outcomes and work planning.

The mini-grid component is likely to achieve all outputs within its timeframe and budget and the outputs are likely to contribute to the planned outcomes (specific objective).

The SPIS component is anchored within INIR and is highly relevant and aligned with national priorities to contribute to increase food security through solar based irrigation of crops. The component has suffered from a lack of continuity in leadership. Staff working in the field have delivered good results mobilising farmers, who are interested and able to procure SPIS. The Project has established a few demonstration projects that did not work during time of the field visit. Furthermore, at the time of MTR, there was a lack of agreed modalities to deliver the irrigation systems, which put the component at a risk of failure. This has changed since and the component is gaining momentum to test delivery modalities and establish agreements to roll out SPIS. If progress continues, the component should be able to show a turn-around toward constructive progress within three to six months. In such case it is possible the component will show some results towards the end of the project. Like the mini-grid component, the SPIS component has room to better integrate gender in the execution of irrigation systems.

The FUNAE has successfully nominated a gender focal point and the project has supported her with training including training of provincial gender focal points. However, both the mini-grid and SPIS component could benefit from embedding gender actions and objectives as cross-cutting element in all the work being implemented including planning of mini-grid productive end-use, SPIS design and use etc.

The Project successfully supports building up a climate finance unit within FUNAE.

## **2.2 Performance criteria**

It is likely that the 5 mini-grids will be delivered as planned and that households will be connected and use the power as expected, contributing to the project's Specific Objective.

Figure 1 - Performance ratings for the mini-grid component

RELEVANCE: global evaluation	A	B	C	D
	✓			
COHERENCE: global evaluation	A	B	C	D
		✓		
EFFICIENCY: global evaluation	A	B	C	D
		✓		
EFFECTIVE- NESS: global evaluation	A	B	C	D
		✓		
IMPACT: global evaluation	A	B	C	D
		✓		
SUSTAINABILITY: global evaluation	A	B	C	D
		✓		

The SPIS component rating considers the current progress and most recent activities within the SPIS component. Given the fact that iDE had just been contracted at the time of the MTR, it is too early to be confident regarding the rating below. Much can change in either direction and the final evaluation will provide the validated rating of the Component. The fact, that the SPIS deliveries are only really starting now does influence the rating as there is little to no evidence of progress towards the results or the specific objective (outcomes). At this stage, 18 months before completion, only 158 farmers on top of the 14 from the GGGI study have been selected, representing around 15% of the project target.

RELEVANCE: global evaluation	A	B	C	D
	✓			
COHERENCE: global evaluation	A	B	C	D
		✓		
EFFICIENCY: global evaluation	A	B	C	D
			✓	
EFFECTIVE- NESS: global evaluation	A	B	C	D
			✓	
IMPACT: global evaluation	A	B	C	D
		✓		
SUSTAINABILITY: global evaluation	A	B	C	D
			✓	

### 3 Recommendations

The recommendations focus on the key structural challenges faced by the Project.

**Recommendation 1:** Organize a series of external facilitated workshops (starting in July 2023) to address matters observed during the field trip related to (i) Strategic Management, (ii) SPIS kick-start deliverables, implementation modalities, completion of the SPIS based on a three-month testing phase (iii) completion and exit strategy for both mini-grids and SPIS components, (iv) accountable completion of the climate finance input and its possible continuation, and (v) the integration of gender into the mini-grid and SPIS components as a matter of urgency.

**Recommendation 2:** The MTR Team recommends that support to SPIS is continued beyond the present project if the project is able to deliver outputs on the ground, and if the project ensures that subsidies and implementation modalities for SPIS are aligned with the other development partners and the GoM. This needs to be confirmed by the revised decision-making structures by no later than November 2023 based on results achieved up to that point.

These recommendations are detailed in sub-recommendations, presented in the table below.

	Key recommendations	Targeted Actor(s)	Operational/strategic
	<b>Project Management to organize a series of external facilitated workshops (starting in July 2023) to address matters<sup>1</sup> related to:</b> <ul style="list-style-type: none"> <li>(i) <b>Strategic Management,</b></li> <li>(ii) <b>SPIS kick-start deliverables, implementation modalities, completion of the SPIS based on a three-month testing phase.</b></li> <li>(iii) <b>completion and exit strategy for both mini-grids and SPIS,</b></li> <li>(iv) <b>accountable completion of the climate finance input and its possible continuation.</b></li> <li>(v) <b>Gender-sensitive actions should be integrated into the mini-grid and SPIS components as a matter of urgency, and it could be relevant to organise a separate workshop to address this.</b></li> </ul>	Decision by Steering Committee  Execution by Project Management	Strategic direction  Strategic content organising five workshops as detailed above
	<b>The MTR Team recommends that support to SPIS is continued beyond the present project if the project is able to deliver on the ground and to support INIR in the development of national guidelines<sup>2</sup> for the implementation of SPIS to ensure sustainability and impact. This needs to be confirmed by the revised decision-making structures by no later than end of November 2023 based on the results achieved up to that date. See workshop (iii) b</b>	Project Steering Committee	Strategic decision based on evidence of progress
	Underlying sub-recommendations	Targeted actor(s)	Operational/strategic
<b>Theory of change</b>			

<sup>1</sup> Such matters are also presented as issues and recommendations in the sections above. It is possible that some matters have been addressed – or resolved – at the time this report is issued as final. The recommendations are based on the observations from the field and associated interviews.

<sup>2</sup> Alignment between Development Partners and the GoM on subsidies and modalities for SPIS support is essential. This can happen in a many forms such as a strategy, guidelines, an instruction or other form that suits the purpose.

	It is recommended that the Project reviews its baseline data and outcome target and considers how to monitor these to allow for an evidence-based report on progress at the end of the project. Such review can coincide with a revision of the Enabel ToC and development of a project specific ToC.	Project management	Operational to be presented for a steering committee for approval
<b>Capacity building</b>			
	It is recommended, that FUNAE and INIR embrace the options for training provided by the project and engages actively in inclusive training planning and implementation with the project.	FUNAE and INIR management and HR division	Management: strategic decision HR: operational implementation
	The final feasibility work for the mini-grid component was not conceived and implemented as part of the capacity building efforts and consisted of external studies. <b>For future projects a lesson could be to ensure, that the Terms of Reference for site-selection feasibility work include a modality whereby the FUNAE could participate more meaningfully and/or with dedicated learning outcomes,</b> (as was the case in the hydro-power feasibility study in Nintulo) <sup>3</sup>	FUNAE Project Manager Enabel Project supervision	Strategic design to optimise capacity development
<b>Mini-grid component</b>			
	Bearing in mind that the purpose was to support increased productive end-use, the <b>MTR team finds the project can optimise its results and demonstration of both gender mainstreaming and business opportunities if the socio-economic actions and gender inclusion are launched immediately and while the contractors are still on site.</b>	Component manager and project lead	Operational implementation. Oversight by Steering Committee
	<b>It is recommended, that the Project Management decides what goals to work towards for the remainder of the project period, by when and with what input, and that appropriate M&amp;E indicators for the full mini-grid component be revised.</b>	Enabel and FUNAE project managers and component lead	Operational planning
	The implementation of mini-grids is currently operating as if FUNAE is the future operator of the Plants. That may not be the case as the regulation clearly allows for private operators and FUNAE has confirmed that they are not interested in managing the five mini-grids that are constructed under this project. <b>The aspect of mini-grids management and operation needs to be addressed and a solution is needed before each site is complete and ready for commissioning.</b> The MTR Team recommends, this matter be addressed immediately and a recommendation for future management and tariffs presented to the Steering Committee for approval before middle of September 2023 or latest before any inauguration of any of the five mini-grids.	FUNAE and Enabel management	Strategic decision needed and clarity before operational hand-over and pricing of electricity to consumers
	<b>The exit strategy for support towards energy planning and energy finance is not finalised. It is recommended, that the</b>	Enabel and FUNAE HR	Operational CB work to plan completion and exit

<sup>3</sup> Where learning goals for FUNAE staff were integrated in the technical and financial (in office and field) feasibility study.

	project uses the momentum of this MTR to agree on what planning tools are outstanding and agree an exit plan for the capacity development work.	training managers	
■	To be able to assess the contribution of the intervention to changes in an endline evaluation, it is recommended that the project carries out an update of the socio-economic assessments of the targeted areas for interventions without delay. This will allow FUNAE and Enabel to compare the situation before and after the commissioning of the mini-grids.	Enabel and FUNAE management	Operational preparation of a ToR for baseline assessment of socio-economic situations and execution here of
<b>SPIS</b>			
■	The MTR Team recommends that the project support INIR setting up a coordination meeting with relevant DPs, with the purpose to align subsidies and financing modalities for SPIS. Such effort could be appreciated as part of the project's institutional capacity development efforts.	INIR counterpart and Enabel SPIS component lead	Operational initiative to coordinate national SPIS implementation
■	The MTR Team strongly recommends, to continue work with the selected farmers in the already selected districts. ( <i>Issue currently being addressed by the project team</i> ).	Enabel component lead and Enabel Project Manager in collaboration with INIR counterpart and iDE	Operational implementation planning
■	The MTR team recommends, that a component management committee be formed to lay out efficient procedures and ensure that the SPIS component decision making structures are improved as a matter of urgency.	Enabel Project management and INIR management	Strategic collaboration agreement and communication structures
■	During the field data collection, the MTR Team found there was some miscommunication between INIR, the iDE, Enabel. A significant progress from iDE fully depends on agreement between iDE and Enabel regarding the project geographical scope and reiterate the districts the project should cover in Manica and Zambézia. The MTR recommends that the geographic coverage be resolved as a matter of urgency as all progress is currently on hold. Delays in resolving these matters will further delay the project Implementation.	Enabel component lead in collaboration with INIR counterpart	Operational roll-out of effective communication, information sharing and collaboration structure
■	iDE was contracted to implement the irrigation component and the targets for iDE are established as "800 small scale farmers, 99 medium scale farmers and 9 large scale farmers". The number of beneficiaries in the iDE proposal (especially the small-scale farmers) is not consistent with those in the TFF RERD2+ Addendum to TFF. The MTR Team recommends, that this matter be clarified as a matter of urgency and presented to a Project Management Committee before the end of July 2023.	Enabel component lead in collaboration with INIR counterpart	Presentation of revised plan for strategic decision



	The MTR Team acknowledges that it is unrealistic to purchase all the planned SPIS (knowing that the planned numbers are also disputed), transport and train farmers within iDE budget. A revision of targets and contract is recommended pending lessons from a pilot phase.	Enabel component lead, INIR, iDE	Operational plan to be revised before 1. December 2023
	It is recommended that an initial set of 10 SPIS be purchased, transported and installed by iDE (immediately) in selected beneficiaries' farms, and the total cost closely monitored and calculated. On this basis of the total cost per SPIS, a revised budget and revised number of SPIS can be established.	Enabel SPIS component lead INIR and iDE	Operational to be reported in progress report
	The SPIS management at ISPM is questionable and doesn't guarantee sustainability in the medium term. <b>It is recommended, that before 1st July Enabel follows up on the ISPM promise that the SPIS will be functioning, and that the project team closely monitor their use for at least the next two harvest seasons</b>	Enabel SPIS Component Lead INIR focal point	Operational monitoring and oversight by Management
	<b>It is recommended that the project ensures an appropriate baseline and monitoring system is in place before 1 September 2023 to be able to document results and potential impact and learn lessons for the potential next phase of the irrigation project.</b>	Enabel SPIS manager	Operational preparation of Terms of reference and recruitment of consultant to prepare baseline and M&E system
<b>Climate Finance</b>			
	Going forward it is <b>strongly recommended, that clear targets and timelines be defined for the Climate Finance Technical assistance irrespective how well it currently may be appreciated.</b>	FUNAE and Enabel management	Operational planning for approval
	Should Enabel choose to bring Climate Finance into a possible future project beyond 2024, <b>it is recommended, to include relevant baselines and systematic monitoring also of impact indicators.</b>	Enabel management and FUNAE counterpart	Design of baseline terms of reference and indicators for success and their monitoring
<b>Gender</b>			
	<b>The MTR team recommends that the project supports the gender specialist with funds for gender action planning in the field in parallel with existing and on-going project activities.</b>	Mini-grid and SPIS component lead in collaboration with FUNAE and INIR	Operation integration of gender across actions
	It is premature to judge impact of gender actions already as they are yet to be implemented in the field. <b>It is recommended, that a final evaluation includes the assessment of possible impacts of gender-related activities.</b>	Enabel project management	Strategic oversight for evaluation
<b>Management</b>			
v	It is recommended that INIR, just like FUNAE, be included as a member of the SC, and that the role of the provinces and their possible participation be considered regardless of there being a representative of the MADER.	Steering Committee	Strategic
	It is, therefore, recommended that the Project Management establish a Technical / Operational group comprising FUNAE, INIR and Enabel with a mandate to discuss and take	Enabel, FUNAE and INIR project management	Strategic leadership



	immediate technical / operational decisions to improve the overall efficiency of the Project. The group or Committee should preferably be open to include representatives from the provincial level to participate when relevant via video links to optimise immediate communication.		
■	It is recommended that the organogram be revised as described above.	Project management	Strategic approval
■	It is strongly recommended, that higher level communication between Enabel and INIR be between the Intervention Manager and the INIR National Director, and day-to-day communication on operational matters be between the SPIS component lead and the INIR focal point.	Project management and Project steering committee	Design of communication and collaboration structure and approval hereof
■	It is recommended that minutes of meetings be concise and focus on actions and deliverables. Minutes should include, as an attachment, a summary table on action points and a simple excel sheet coded in green, yellow, red to focus the attention to the key deliverables and actions being on track, needing attention or needing Operational Management intervention.	Enabel Project Manager	Operational
aa	It is recommended that the progress reports be concise and include an Excel sheet which illustrates the project progress against expected targets and milestones from start to finish. The international staff are also recommended, to account for their time against main delivered outputs to make value for money clear to the decision makers.	Enabel Project Manager Enabel HQ	Operation Initiate time management for all recruited staff to help collaboration and accountability of deliverables

## 4 Lessons learned

A lesson to be learned from the implementation of RERD2+ is, the importance of a thorough six (6) months **inception phase**. During this the project management can build consensus on common objectives and fine-tune implementation and working modalities (including lines of responsibilities, decision-making processes and communication protocols), results and outcomes to be achieved and their means of verification.

A good inception phase can be followed up with regular one-day team-building seminars (every six or twelve months) to maintain the good work-relations and appreciation of goals, work modalities and delivery plans. Regular get-togethers to debate the vision, goals, outcomes and outputs should never be underestimated in particular in a situation like this one where staff in partner institutions (FUNAE and INIR in this case) have multiple projects and development partners within their work portfolio. The inception phase and team-workshops will help unpack everyone's role, and that of all institutions and stakeholders involved, discuss their responsibilities, and identify the needs for training and capacity building. Such engagements are essential to establish efficient communication channels and mechanisms.