



Direcção Nacional de Abastecimento de Água e Saneamento

Results Report

(May 2019 – September 2020)

MOZ19001 - CLISMADEV (Climate-Smart Development in Mozambique: Using renewable energy for sustainable access to safe and affordable drinking water in Gaza Province)

Mozambique



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1 Abbreviations

CAS	Water and Sanitation Committee
DAS	Department of Water and Sanitation
DNAAS	National Directorate for Water Supply and Sanitation
DPOPHRH	Provincial Directorate for Public Works, Housing and Water Resources
Enabel	Belgian Development Agency
FUNAE	Fundo de Energia (National Energy Fund)
M&E	Monitoring and Evaluation
PEC	Community Participation and Education
PMT	Project Management Team
PRONASAR	National Program for Rural Water and Sanitation
RERD 2	Renewable Energy for Rural Development Phase 2
SDPI	Serviços Distritais de Projectos de Investimento
SP	Services Provider
TA	Technical Assistant
VAT	Value Added Tax
WSS	Water Supply System

2 Summary of the intervention

2.1 Intervention form

Title of the intervention	Climate-Smart Development in Mozambique: Using renewable energy for sustainable access to safe and affordable drinking water in Gaza Province
Code of the intervention	MOZ19001
Location	District of Chókwe, Gaza Province, Mozambique
Total budget	€ 1.087.706
Partner institution	DNAAS (National Directorate of Water Supply and Sanitation)
Start date of the Specific Agreement	01/05/2019
Start date of the intervention/ Opening steering committee	01/05/2019
Expected end date of execution	30/04/2021
End date of the Specific Agreement	31/10/2021
Target groups	Communities of Titite, Tlawane and Chaquelane (including climate migrants), technicians DAS/SDPI
Impact	To contribute to the development of social and economic resilience to climate changes by vulnerable communities in Gaza Province
Outcome	Improve sustainable access to safe and affordable drinking water through a systemic approach based on the use of renewable energy, healthy living and the empowerment of communities and local private sector
Outputs	Renewable energy powered water networks are installed and provide secure access to safe drinking water
	PEC - Community Education Programs are implemented to empower communities in water management and efficiency, sanitation and create climate awareness and develop adaptation and mitigation skills
	sustainability of the water network systems is ensured through the involvement of private and local stakeholders in the operations, management and maintenance
Year covered by the report	May 2019 – September 2020

2.2 Self-evaluation of performance

2.2.1 Relevance

	Performance
Relevance	A

This intervention was designed considering the critical situation faced by most districts of Gaza Province regarding the access to drinking water due to poor water availability, brackish groundwater and population dispersion. This added to climate vulnerability faced by the population of this region and their need to develop adaptation and mitigation skills.

The actions proposed in this project are in line with the national water sector policies in Mozambique such as the recently approved National Program for Rural Water and Sanitation (PRONASAR) which prioritizes, among other actions, the construction of conventional water sources, replacement of hand pumps by water systems using renewable energy and the introduction of new water treatment technologies including desalination and the private management of the systems

But the CLISMADEV project goes beyond water provision. In this project, Enabel is promoting specific “climate friendly” features, like renewable energy (solar and national hydro-powered grid), advance solar and desalinization technologies (no battery, long life membranes, distance monitoring of WSS), and community sensibilization regarding climatic changes and environmental preservation, giving the project a greater scope and improving the resilience capacity of the beneficiary communities.



As shown on the pictures : The water has such a high level of salinity in the village that it attacks the hand pump and forces the population to use brackish water or to find water elsewhere.

2.2.2 Effectiveness

	Performance
Effectiveness	B

This project was designed to solve the lack of drinkable water in 3 communities representing 12.200 persons in Chokwé district, Gaza province, by providing improved water infrastructures in these communities, and guaranteeing the sustainability of these water systems by projecting their management by private companies.

General Election and following changes in government structures in oct. 2019 did perturbate the course of the project, but it has been overcome now, with nomination of former District SDPI Director as Provincial Director. Current Covid 19 Pandemic has also been affecting the course of the project, although mitigation measures have been taken to allow the activities to take place in the field.

The original budget did not take into account the future need for water in Chaquelane (170.000 € to serve 5.500 persons), a climate refugee resettlement area, and extra funds are now required and looked for to build an adequate WSS for serve an extra 1.000 people, with possibilities for further network expansion.

2.2.3 Efficiency

	Performance
Efficiency	B

The project was designed based on the lessons learned by Enabel and DNAAS from the previous project “Water Gaza” which was successfully implemented in that same province. This allowed an adequate selection of technical solutions (water catchments, desalinisation and distribution systems) and an improvement in planning (budgetary and timely), which takes into consideration fundamentally the specific situations of the intervention zones.

All technical specifications of the infrastructures to be built and of the Programs for community education services were developed by the project team in a way that they can allow timely monitoring and the delivery of correctly sized and appropriate responses to identified problems. In addition, the tendering procedures follow Belgian public market rules, thus enhancing management control of the execution contracts.

However, the remoteness of the project sites and the negative effects of COVID-19 Pandemic may cause some efficiency problems. The COVID prevention measures taken by the government are already affecting the intervention, and put on hold some of its activities (like quarantine in the public sector, with only half of the staff on duty, delaying the decision taking and supervision by local government, requirement of Covid Test for each and every technician going to work in the communities, etc). This will definitively impact on the intervention’s efficiency. And due to the pandemic situation, the costs and delays to deliver imported materials already increased.

2.2.4 Potential sustainability

	Performance
Potential sustainability	B

The proposed technical solutions are based on the use of renewable energies such as, solar (without batteries) and hydropower energy through the national grid, which will minimize the operation and maintenance direct costs and therefore reduce the cost and price of water.

In addition, all water systems were designed to include distribution networks via taps in the backyards (1 tap/5 nuclear families, often corresponding to one enlarged family), and additional community taps which aim to bring together the maximum number of beneficiaries in the same location and surrounding areas.

The operation, maintenance and management of these systems will be awarded to qualified private operators, who should be able to take advantage of the large cover of the systems and

make profit from the business. These private operators are responsible for the production, treatment, distribution, and sale of water.

The involvement of the beneficiaries in the management process through the community Water Management Committee (CAS), responsible for the management of public taps (sale and payment of water) and follow-up of due payment by individuals with “private” taps, is one of the actions to make it more sustainable

The intervention undertakes also actions aiming at awareness raising on water management and its efficient use, hygiene, and health promotion as well as on climate resilience.

Based on experiences of “Water Gaza Project” implemented by Enabel, the private sector involvement in the management of WSS, which became a reality in Gaza province, has been producing positive results and contributing to sustainability of the water facilities.

The negative impact of COVID-19 Pandemic in the country’s economy may compromise the sustainability of the water systems as the local population, often depending on money sent by family members in Maputo or South Africa, might experience a decrease in income (therefore not being able to pay for the water). The managing private company may not dispose of the required financial resources to ensure the adequate operation and maintenance of the water systems, particularly after project closure. Lastly, the provincial and district government may lack of resources to monitor the use and maintenance of the water systems.

2.2.5 Conclusions

The project started in May 2019, but its concrete implementation in the field was delayed by the political context of national and provincial elections in October 2019. Meanwhile, a new decentralization legislation was approved, and provoked deep changes in the provincial government, with 3 successive changes of the provincial Director of Infrastructures and Public Work (DPIOP), the direct counterpart of the project at provincial level. This successive changes in the leadership of Provincial team implied that the project was not getting forward, until the new DPIOP, by chance previously Chokwé district infrastructures Director, well aware of, and interested in the Enabel activities, took charge.

The prevention measures against Covid 19 also delayed the beginning of the infrastructure works, as already explained (test requirement for each technician going into the communities, long delays to get the results, fortnight rotation of staff in the public services). procedures for the authorization for the workers’ mobilization and the respective transport of equipment, ...).

Those events made it more difficult to carry out the activities within the initially established schedule.

Following the significant increase in infrastructure costs due to the current context, additional funds will be required. For this reason, Enabel is currently looking for a solution.

However, with great commitment that the Enabel team and the Chokwe district government leadership has demonstrated, yet during the current year crucial activities, have been carried out in the best way to adjust the schedules, to rework the terms of reference that contributed to the acceleration of the activities and align with the work plan of the project.

Briefly, since 2019, the following activities have been undertaken:

- Assessment and selection of existing raw water sources (boreholes) to feed the WSS;
- Analysis and approval of topographic study of Titite and Tlawene for desalination WSS;

- Feasibility study of the expanded project design of Chaquelane WSS, foreseen to supply 8.800 people in prevention to future climate challenges (instead of 5.500 as initially projected) Discussion and approval of the ante project The launch of the tender is still on hold, due to the estimated financial cost overpassing the available initial project budget¹;
- Preparation of technical specifications and publication of Tenders for Titite & Tlawene (both communities formed the same batch), regarding:
 - Water system construction – installation of the pump into existing waterholes, building of the pump house, building of the distribution center (office, water treatment workshop, water tower and reservoir, canalization)
 - Work’s supervision,
 - PEC services.
- Pre-qualification and final evaluation of pre-qualified offers (1 for water system construction, 5 for works’ supervision, and 4 for PEC services);
- Contracts awarding (Afridev-Mati Moz-Vergnet joint venture for WS construction in June 2020, INGEROP Moçambique Lda for supervision in July 2020 and Geomati Lda for PEC services in March /2020) and beginning of the beginning of the stakeholders’ engagement process. However, all contracts effectively begun after the kick off meeting hold in Chokwé Administration headquarters, on July 9th, 2020, with all the interested parties, under M. Chivambo leadership and support to aliviate the field restrictions due to COVID prevention ;
- The PEC program is now progressing with great acceleration contributing to the educational involvement of the targeted communities;
- The local communities as well as the District Government have been directly involved in the activities and are demonstrating high expectations and interest for the realization of the CLISMADEV project.

3 Monitoring of results

3.1 Evolution of the context

3.1.1 General and institutional context

This project was started in May 2019, when the country was in the middle of its political campaigns for the presidential, National Assembly representatives e provincial governors’ elections (this late for the first time). Therefore, most of the partner’s staff was deeply involved in their political activities and couldn’t organize and call/attend project meetings.

As a result of the elections, a new government cabinet was set up in January 2020 resulting in changes, at both central and provincial levels. At provincial levels, the new system of decentralized government led to major top-level officials rotations.

Our partner institutions (MOPHGRH-DNAAS) were not affected at national level, but suffered three successive changes at provincial and district levels in Gaza Province, which resulted in the unavailability for top officials to follow-up of the project, from May to end of August 2020, when Mr. João Chivambo , former SDPI district director in Chokwe, was appointed as Gaza Provincial

¹ Alternative solution would be a smaller project to serve 6.000 persons with possibilities for further expansion, but the available funds are not enough even for this “a minima” option.

Director of Public Works. As M. Chivambo knew well ENABEL and the project (from WATER GAZA project), his nomination did boost the project progresses.²

The deterioration of the financial situation in Mozambique since 2016 continued to produce negative effects in 2019. This situation was aggravated by the suspension of budget support and funding from the majority of the country's development partners since 2017 and is having immediate negative impact on the government departments operations and the allocation of their resources for investment at all levels (national, provincial and district).

All services related to the water sector are affected by the above, in particular by the restrictions to recruit or replace retiring staff and technicians, which reduces the partner's capacity to monitor the activities implemented by different projects, including this one.

The spreading of COVID-19 Pandemic, which is already affecting the project implementation and is putting the government under a significant financial pressure, may reduce government financial allocations in the sector, even though water is a very important component in the fight against this Pandemic.

3.1.2 Management context

This project is implemented under regie execution modality and therefore its tenders/ public markets follow the Belgian laws and regulations. However, and in order to strengthen the ownership by the partners (DNAAS/DPOP), Enabel involves them in the whole procurement process, particularly in checking the adequacy of the ToR, the price offers and their compliance with local policies, priorities and needs.

3.1.3 Partnership modalities

This project is mainly funded by the Flanders International Cooperation Agency (Regional Climate Funds) and implemented by Enabel under a special agreement, being this late fully responsible for the execution and management of the project. The National Technical Assistant is paid through the bilateral project (Study and Expertise Fund).

3.1.4 Operational modalities

The implementation modalities are clear and were presented and discussed at the beginning of the project, but some adjustments or negotiations may be needed particularly the support to the partner's local financial capacity to do the project follow-up. So, these issues can be discussed during the next Steering Committee meeting to ensure adequate involvement of the partner in the monitoring/supervision of the project activities and the continuity of services after the project implementation period.

In order to avoid operational problems emerging from heavy and bureaucratic processing of tax exemption, which is granted to Enabel based on the Standard Cooperation Agreement signed between the Belgian and Mozambican governments, Flanders contribution includes financial resources for the payment of local taxes, particularly the VAT.

² The Provincial Director of Public Works of Gaza, (Mr. Ângelo Ramos) in office since 2016, ended his mandate at the beginning of May 2020. He was replaced by Mr. Arsenio Mandlate, under the new nomenclature of "Gaza Provincial Director of Infrastructure" and he stayed only a month as Director. He was substituted by Ms. Emília Mapsanganhe, appointed as Coordinator of the activities of the Provincial Directorate of Infrastructure in Gaza for a period of 1,5 months. Finally Mr. João Chivambo, former SDPI district director in Chokwe, was appointed at the end of August 20. These successive changes had a significant impact, in the delay in the project implementation process and in the progress of activities.

3.2 Performance of outcome



3.2.1 Progress of indicators

OUTCOME: Improve sustainable access to safe and affordable drinking water through a systemic approach encompassing renewable energy, healthy living, empowerment of communities and local economic stakeholders						
Indicators	Base-line value	Final target value	Target values year 19	Target values year 20-21	Target values year 21-22	Unit of measurement
% of the total population of the intervention area benefits from safe and affordable drinking water (SDG)	0	100	N/A	N/A	100	%
Number of climate migrants in the intervention area benefits from safe and affordable drinking water	N/A	100	N/A	N/A		%
% of public institutions with access to safe and affordable drinking water	6	100	N/A	N/A	100	
Quantity of safe and affordable drinking water used per person/ day (DNAAS)	0	20	N/A	N/A	20	Litre/day / person
% of community members without waterborne diseases	N/A	100	N/A	33	100	
% of households dropping out of water system connection	N/A	0	N/A	N/A	0	%
Amount of time spent on fetching water at the closest water point	>=60	<60	N/A	N/A	<60	Minutes
% of Water Committees who implement climate resilient management rules & regulations for water efficiency, protection & sanitation	N/A	100	N/A	25	100	%

3.2.2 Analysis of progress made

As above referred, the project has not yet made significant progress and the indicators will mainly be measured through the PEC reports (water and sanitation education trainings) and the data collected by SDPI (District Service for Planning and Infrastructure), which provided the baseline data.

No problems are foreseen in terms of collecting data for the indicators, however, it might be more difficult to find reliable data for the indicators related to waterborne diseases in those particular districts and to give an current estimated on what could be a feasible target, as this would require a study on the effect of drinking water on waterborne diseases.

The indicator “amount of time spent on fetching water at the closest water point”, includes the whole process/timing of going to the water point, collecting water up to returning home.

Given the nature of the indicators and the short period of project implementation it is not possible to analyse them now. Most of them will only be measured twice: at the beginning as baseline values and at the end of the project as end targets.

3.3 Performance of output 1



3.3.1 Progress of indicators

OUTPUT 1: Renewable energy powered water network is installed and provide secure access to safe drinking water

Indicators	Baseline value	Final target value	Target values year 19	Target values year 20-21	Target values year 21-22	Unit of measurement
Level of services provided (safe and affordable drinking water)						%
Highly Improved services	0	100	N/A	50	100	
Improved services	300	0	N/A	0	0	
Basic services	2700	0	N/A	0	0	
Limited/No service	4850	0	N/A	50	0	
% of installed drinking water facilities powered by renewable energy contributing to affordable and reliable water services (SDG)	N/A	100	N/A	60	100	%
% of built photovoltaic system for desalination plants are free battery use to ensure the universal access to affordable, reliable and modern energy services (SDG)	N/A	100	N/A	100	100	%

3.3.2 State of progress of the main activities

State of progress of the main activities	State of progress / the activities are:			
	Ahead of time	Within deadline	Delayed	Seriously delayed
1 Construction of WSS of Chiaquelane			X	
2 Construction of Desalination WSS of Titite		X		
3 Construction of Desalination WSS of Tlawene		X		
4 Supervision of Works of all WSS		X		

3.3.3 Analysis of progress made

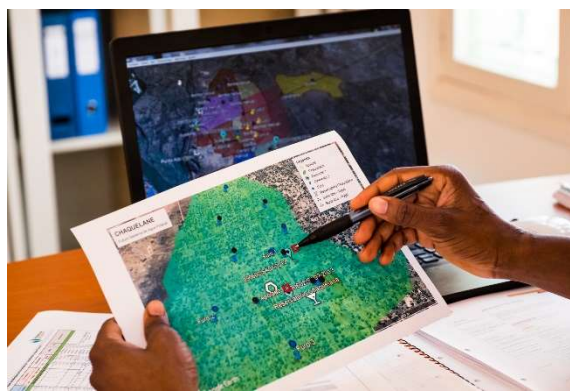
The baseline study showed that, for the moment, the referred communities/sites have limited or no water services at all. The objective of the intervention is to increase the amount of highly improved water services and this will only be possible after project implementation.

During the reporting period, the intervention has carried out activities related with project kick-off, such as field missions for baseline surveys, hydraulic and topography studies and the tender preparations, their publication and contract awarding.

As in all 3 project sites, the Water Supply Systems (WSS) will be fed by row water of existing boreholes, it was very important to select best boreholes based on controlled tests and to identify suitable technology for each site. These assessments allowed not only the selection of good boreholes but also the finalisation of the technical specifications included in the public tenders.

The main activities carried out during the reporting period (May 19 /September 2020) were:

- Assessment and selection of existing row water sources (boreholes) to feed the WSS;
- Analysis and approval of topographic study of Titite and Tlawene for desalination WSS;
- Feasibility study of the expanded project design of Chaquelane WSS, foreseen to supply 8.800 people in prevention to future climate challenges (instead of 5.500 as initially projected). Discussion and approval of the ante project. The launch of the tender is still on hold, due to the estimated financial cost overpassing the available initial project budget;



- Preparation of technical specification for construction of the WSS, for the two desalination plants in Titite and Tlawene;
- Preparation of technical specification for the supervision services;
- Publication of Tenders for WSS construction and supervision services;
- Evaluation of offers³ and awarding of contracts of the Titite+Tlawene WSS;
- Equipment requisition, orders and payment. Equipment have already been dispatched and are expected to arrive in Mozambique-Maputo in the middle of next quarter. The arrival of the equipment was delayed, due to the state of emergency in the countries of origin;
- Gathering and assembly of local equipment is in progress;
- All actives are duly supervised by INGEROP Moçambique Lda.

³ After pré-évaluation,, the following proposal remained for selection: AFRIDEV MATI Mozambique_VERGNET_HYDRO Joint Venture for WSS building, 5 offers (Nikotcholaka Lda, CFN Lda, BVI Lda, Dallas Lda, INGEROPcambique) for supervision services .

- Confirmation of boreholes data by the construction enterprise: water flow tests and water sample collection were carried out in the communities of Titite and Tlawene. The results confirmed all requirements regarding water quantity and quality (salinity, pH, bacteriology, conductivity etc.);



3.4 Performance of output 2



3.4.1 Progress of indicators

OUTPUT 2: PEC Community Education Programs to empower communities in water efficiency, sanitation, management and climate awareness, adaptation and mitigation skills						
Indicators	Baseline value	Final target value	Target values year 2019	Target values year 20-21	Target values year 21-22	Value
% of water and sanitation committees linked to the project infrastructures trained and operational	N/A	100	N/A	50	100	%
% of women present in the Water and Sanitation Committees (CAS) leadership (gender equity)	N/A	30	N/A	20	30	%
% of beneficiaries who complete the PEC curriculum with a focus on climate change	N/A	100	N/A	30	100	%
Number of discussions/ workshops with community members on sanitation, water efficiency and climate awareness	N/A	6	N/A	3	3	Number of discussions/...
% of households abstaining from open defecation	N/A	100	N/A	50	100	%
Number of initiatives under-taken by community related to climate mitigation and adaptation	N/A	3	N/A	3	0	Number of initiatives

3.4.2 State of progress of the main activities

State of progress of the <u>main</u> activities*	State of progress / the activities are:			
	Ahead of time	Within deadline	Delayed	Seriously delayed
1 Community Education Program in Chaquelane			X	
2 Community Education Program in Titite		X		
3 Community Education Program in Tlawene		X		

*Start of services delayed until July 20 due to the COVI-19 Pandemic

3.4.3 Analysis of progress made

This output focuses on the empowerment of the communities through the participation and education programmes (PEC) on water efficiency, sanitation and climate awareness. Its indicators focus therefore on measuring the completion rate of the training, improved knowledge on the topics (i.e. through discussions) and the behavioural change of the beneficiaries (i.e. open defecation, initiatives related to climate change).

The selected indicators also look at the set-up of the Water and Sanitation Committees (CAS), their training and full operation. Moreover, the project opted to add a gender sensitive indicator to this output by measuring the representation of women in these CAS.

With regards to the abstention from open defecation, it is for the moment impossible to give a baseline value. It is foreseen that in the beginning of the PEC trainings a survey will be undertaken in order to get more information on the baseline values.

Referring most of the other indicators, the information will be easily obtained from PEC reports and CAS meeting notes. Nevertheless, the number of climate/water efficiency discussions and climate change initiatives (i.e. construction of domestic rainwater harvesting structures and appropriate protection and treatment, decrease in use of firewood, less use of chemicals in agriculture) will require a more thorough follow up from the TA through field visits.

The PEC activities are extremely important in the project, to ensure the proper use and maintenance of the water systems (avoiding waste of water and over charged water bills), promoting improved hygiene and climate resilient practices.

On the other hand, the PEC-SP is also in charge of collecting the project impact progress indicators. As the activities are still in their initial phase on the ground, it is not yet possible to obtain data that can show any progress expected results.

The PEC program is now progressing with great acceleration contributing to the educational involvement of the targeted communities.

The main activities carried out so far were:

- Baseline survey and report;
- Public Tender for PEC services in Titite/Tlawene/Chaquelane was launched in December 2019 (offers received in January 2020);
- Preselection of 4 offers (GEOMATI Lda, MATI CONSULTORES Lda, PROWATER Lda, MUNDI CONSULTING Lda) ;

- Contract awarding GEOMATI Lda in March 20, but services have been put on hold due to the COVID-19 Pandemic until the kick off meeting in July 20;
- Presentation of the PEC SP to the district government at kick off meeting, as well as to the communities ;
- Staff mobilization and start of the field work for CLISMADEV project on the site:
 - Interactions with the communities regarding the new water systems, and water payment issues;
 - Interaction with community leaders to introduce the construction enterprise;
 - Training of activists.
- Awareness raising in the communities on issues like hygiene, health, and environment;
- Promotion of public event (International Cleanness day –19th of September);
- Coordination and participation in the creation of the water committee (CAS);
- Other activities as per the governmental orientations for PEC services: organizing the visit of provincial parliament representatives for monitoring the Government 5 yrs Plan, monthly collect and transmit data to SDPI on water and sanitation practices, etc.

The PEC activities are extremely important in the project, to ensure the proper use and maintenance of the water systems (avoiding waste of water and over charged water bills), promoting improved hygiene and climate resilient practices.

On the other hand, the PEC-SP is also in charge of collecting the project impact progress indicators. As the activities are still in their initial phase on the ground, it is not yet possible to obtain data that can show any progress expected results.

3.5 Performance of output 3



3.5.1 Progress of indicators

OUTPUT 3: Sustainability of the water network systems is secured through the involvement of private and local stakeholders in the operations, management and maintenance						
Results / Indicators	Base-line value	Final target value	Target values year 19	Target values year 20-21	Target values year 21-22	Unit of measurement
% of water systems which are managed and maintained by private actors	N/A	100	N/A	33	100	%
Number of the local authorities -CAS in the private management staff to promote ownership of the communities	N/A	3	N/A	1	3	Number of CAS member
% of the drinking water infrastructures using digital operational & maintenance system (use of enabling technology - SDG)	N/A	100	N/A	33	100	%

% of the water committees (CAS) using a secure & transparent digital payment system	N/A	33	N/A	0	33	%
Number of studies/ seminars/workshops on management modalities of the water network system	N/A	2	1	1	0	Number of studies

3.5.2 State of progress of the main activities

The activities with regard to sustainability of the water systems will start at the end of the construction works and the selection/contract of private operators for the management and maintenance of constructed facilities.

3.5.3 Analysis of progress made

Even though these activities have not yet started preparation works such as their inclusion in the ToR for PEC services, particularly the actions oriented towards sanitation and hygiene issues and setup of management committees for taps and standpipes have already been undertaken.

The first two indicators will measure the involvement of local and private stakeholders in the management of the water systems. While the use of digital systems for the operation, maintenance and payment of water services will be used as indicators for the sustainability of the water systems (under the assumption that digitisation will contribute to swift and to better maintenance and operation of the systems).

The use of a secure and transparent digital payment system will depend on the private managing company, but it will be promoted the PMT through the CAS.

In order to discuss about WSS management modalities the partner (DNAAS) is planning to organize a workshop with all interested parties (donors, executing agencies, private sector etc), which is expected to take place in 2020.

4 Budget monitoring

The budget monitoring table of the intervention is included in this chapter of the Report.

It's extracted from the Enabel accounting system (UBW extract). Each budget line corresponds to the project's outcome and outputs (A) or general means (Z), and gives the expenses for the reference period as well as the original budget and the execution rate.

All the expenditures are in own-management (regie), and the modality co-management is not applicable in this project as indicated in the proposal agreed by the donor.

Summary of advance versus expenses for the period concerned: 1/5/2020-31/10/2020

	AMOUNT IN Euro
Total advances received : First Installment	200.000,00
Total of expenses (see details below)	277.329,49
Balance advances received	-77.329,49
% use advances received	139%



Date SA: 01/05/2019
End date SA: 30/10/2021

<u>Budget</u>	<u>Expenses</u>	<u>Total</u>	<u>Balance</u>	<u>Execution</u>
	<u>01/05/2019 -</u>	<u>expenses</u>		<u>rate</u>
	<u>31/10/2020</u>			

A - Improve sustainable access to safe and affordable drinking water through a systemic approach encompassing renewable energy, healthy living, empowerment of communities and local economic stakeholders

A_01 - Renewable energy powered water network is installed and provides secure access to safe drinking water.

A_01_01	Setting up Systems of safe drinking water	674.078	232.325,70	232.325,70	441.752,16	34%
A_01_02	Supervision of works and technical studies	83.770	6.804,85	73,49	83.696,10	0%
Total A_01		757.847	239.130,55	232.399,19	525.448,26	31%

A_02 - PEC Community Education Programs empower communities in water efficiency, sanitation and management and climate awareness, adaptation and mitigation skills.

A_02_01	Implementation of Community Education Program	59.150	8.762,82	8.762,82	50.387,51	15%
Total A_02		59.150	8.762,82	8.762,82	50.387,51	15%

A_03 - Sustainability of the water network system is secured through the involvement of private and local stakeholders in the operations, management and maintenance.

A_03_01	Studies	22.000	0,00	0,00	22.000,00	0%
A_03_02	Data base	5.000	0,00	0,00	5.000,00	0%
A_03_03	Communication	4.000	704,79	704,79	3.295,21	18%
Total A_03		31.000	704,79	704,79	30.295,21	2%

Total A **847.998** **248.598,16** **248.598,16** **599.399,62** **29%**

Z - General Means

Z_01 - Staff costs

Z_01_01	Support and Technical Assistance	18.750	0,00	0,00	18.750,00	0%
Total Z_01		18.750	0,00	0,00	18.750,00	0%

Z_02 - Investments

Z_02_03	IT equipment	500	0,00	0,00	500,00	0%
Total Z_02		500	0,00	0,00	500,00	0%

Z_03 - Functioning costs

Z_03_02	Vehicle running costs	6.300	1.928,36	1.928,36	4.371,64	31%
Z_03_03	Office supply, telecommunications, etc	4.095	25,98	25,98	4.069,02	1%
Z_03_04	Missions	8.100	1.565,22	1.565,22	6.534,78	19%
Z_03_05	Other functioning costs	848	0,00	0,00	848,13	0%
Total Z_03		19.343	3.519,56	3.519,56	15.823,57	18%

Z_04 - Audit and Monitoring and Evaluation

Z_04_01	Monitoring and evaluation costs	13.500	0,00	0,00	13.500,00	0%
Z_04_02	Audit	9.000	0,00	0,00	9.000,00	0%
Total Z_04		22.500	0,00	0,00	22.500,00	0%

Total Z **61.093** **3.519,56** **3.519,56** **57.573,57** **6%**

Subtotal MOZ19001 **909.091** **252.117,72** **252.117,72** **656.973,19** **28%**

Overhead Enabel - 10% **90.909** **25.211,77** **25.211,77** **65.697,32** **28%**

Total MOZ19001 **1.000.000** **277.329,49** **277.329,49** **722.670,51** **28%**

5 Risks and Issues

Risk Identification			Risk Analysis			Risk Treatment		
Description of Risk	Identification	Risk Category	Probability	Potential Impact	Total	Action(s)	Resp.	Deadline
Weak institutional capacity to manage the new desalination technologies	Baseline	OPS	High	Low	Medium	Involvement of private sector (private professional management)	PMT/ DAS	Q1 2021
						Workshop to discuss the new approach/ terms for contracting private management	PMT/ DAS	Q3 2019
Weak Water and Sanitation Committees	Baseline	OPS	Medium	Medium	Medium	Training of local Committees-CAS through PEC	PMT/ DAS	Q1 2021
						Follow-up the CAS work	PMT	Q1 2021
Limited availability of capable local private actors in the use of the new desalination approach (construction & management)	Baseline	OPS	Medium	Medium	Medium	Attract international private actors (public tender process)	Enabel	Q1 2021
Low management capacities of local private actors: problems with operation & maintenance	Baseline	OPS	Medium	Medium	Medium	Promote joint-venture initiatives between Mozambican and- international enterprises	Enabel/ DAS	Q1 2021
Lack of membranes and other technical spare parts in the local market	Baseline	DEV	Medium	Medium	Medium	Management of the systems by equipment manufacturer or supplier	PMT	Q1 2021
Poor quality of existing boreholes	Baseline	OPS	None	Medium	None	The boreholes checked	PMT	Q3 2019
						Drill new boreholes in worst case scenario	PMT	-----
Vulnerable families are too poor t and can't pay for water services	Baseline	DEV	Medium	Medium	Medium	Use of renewable energies to reduce the price for water	PMT	Q1 2021
						Sensitization about importance of water services through PEC activities	PMT	Q1 2021
Theft and degradation of solar panels (the mass use of solar energy increases the possibility of theft)	Baseline	OPS	Low	Medium	Medium	Elevation of all solar panel structures	PMT/DNAAS	Q4 2020
						Management of systems by private operators (responsible for the safety of the installations)	PMT/DNAAS	Q1 2021
						Container is placed over the membrane and pump to protect from robbery	PMT/DAS	Q1 2021
Unwillingness and/or inability to adapt habits to climate change realities	Baseline	DEV	High	Medium	High	Climate awareness training by PEC	PMT	Q1 2021
						Discussion about alternative habits in community (PEC, Water Committees,...)	PMT	Q1 2021
Community members are not prepared to use digitized payment system	Baseline	OPS	High	Low	Medium	Private operators offer digitized payment	PMT	Q1 2021
						Sensitization by PEC	PMT	Q1 2021

6 Synergies and complementarities

As above referred this project has been designed based on experiences from the project Water-Gaza, but with a specific attention to climate adaptation in the water sector.

The project at its end will complement and gives an adapted solution that can be used in other projects implemented by the government implemented through PRONASAR and PRAVIDA an aiming at the improvement of the water supply.

Above all, it is a question of showing and demonstrating the adaptation in the provision of clean water for the population by using climate friendly systems (mitigation measures with solar desalination).

6.1 With other interventions of the Portfolio

The intervention is being complemented by another Enabels bilateral project, namely the Study and Expertise Fund through the provision of the National Technical Assistance for the whole project duration

On the other hand, and as above-mentioned the project prioritizes the use of renewable energy for water pumping and treatment through the use of solar panels and can therefore create synergies with RERD 2⁴ and benefit from existing technical expertise created within FUNAE.

6.2 With third-party assignments

Enabel is preparing a similar project to be funded through the Green Climate Fund to be implemented in other provinces in the southern part of Mozambique, which includes the province of Gaza, Inhambane and Maputo and for which lessons learned through this project will be of outmost relevance.

7 Transversal themes

7.1 Environment and climate change

The project was designed so that renewable energies (hydropower and photovoltaic) will be its first choices, aiming at its environmental sustainability;

The systems are built in rural areas where more land is available, for the disposal of the waste and the desalination units are small in size and will therefore not produce significant volumes of waste in one hand and on the other the provision of potable water seemed more important than the environmental impacts of the proposed solutions.

The management of the waste to be generated during the treatment of brackish water has also been taken into consideration in the ToR/designs for construction of the desalination plants, in order to avoid significant environment pollution.

7.2 Gender

According to the baseline survey carried out in November 2019, the collection of water in the intervention zones is an “exclusive” task for women and girls, which is a general principle in all rural areas of Mozambique. So by increasing the water supply, this project will be contributing to

⁴ RERD2: The project “Renewable energy for rural development phase 2” focus on renewable for productive use. Additional funding will be added to this project in 2021 to address the productive water aspect.

the improvement of the living conditions of the targeted communities, in general, but in particular of the women and girls living in those zones, as described below:

- Women will have the opportunity to take leadership in the water services management, through their involvement in the Water and Sanitation Committees (CAS). This approach will allow women to lead or at least to participate in the management of taps and fountains and in the decision making processes;
- Women will gain more time to dedicate to other domestic activities, such as caring for children and income generating activities, such as farming or trading;
- Women will be trained through PEC to promote climate changes resilience actions (adaptation and mitigation) in their communities and
- Girls will be more engaged at school and will have more time for leisure activities, as they will no longer have to walk long distances to search for water.



7.3 Digitisation

In addition to the successful results in the updating of the water database in Gaza Province through the use of a digitized technology (AKVO) introduced by Enabel and now being used in other provinces by different actors, this intervention will promote the following digitization activities:

- Digital technology will be used in the remote management of water sources – the new water supply systems are designed with the option to use remote management/ monitoring through a smartphone. This innovation reduces the management/ operation costs of the WSS, particularly of dispersed systems, as it reduces the need of site visits/checks by specialized technicians, who can then remotely access the operational technical reports sent by the local operators and therefore reduce travel costs to those remote areas;
- Payment of water services – the project will encourage/motivate private operators to introduce digital payment of water services, including payments through mobile money transfer services such as Mpesa and e-Mola. This, making the payment of water supply

services safe, comfortable and convenient to the users, particularly in those rural and remote areas;

- Another option to be studied and promoted with the private operators will be the “pay as you go” (PAYG) systems, by which client can only access services once they paid for it. This will ensure the adequate payment of the water, therefore improve the WSS systems. It will also make the users more conscient of their use of water, thus avoiding wasting the same (better resources’ management, improve ecological impact);

- Updating of databases
(monthly water and sanitation information provided to district administration and SDPI).



7.4 Decent work

This intervention will contribute to the promotion of decent work through the employment of some members of the local communities/beneficiaries in the construction of water systems but also and previously in the PEC activities (raising awareness of good water practices, hygiene, health and promoting climate resilience actions).

On the other hand, it is also expected that after the completion of the construction works of the water systems, part of the local population will be involved in their management, either through employment contracts with the private operators or just as members of community based management committees (as set forth in local/international laws).

8 Steering

8.1 Changes made to the intervention

No changes have been made yet. However, the negative impact of the COVID-19 Pandemic might imply its adaptation to the new reality.

8.2 Decisions taken by the Steering and monitoring committee

The first Steering Committee meeting had been scheduled for November 2019, but due to the unavailability of the partner (DNAAS), which staff has been deeply involved in the political activities because of the presidential, general and governors elections held in October 2019. The Covid situation didn't allow the SC to meet. Therefore, there are no decisions to be indicated

8.3 Considered strategic reorientations

No strategic reorientations have taken place.

Considering that this project and its activities have been defined based on the lessons learned of previous projects it is to believe that no major changes will occur.

The use of renewable energy (battery-free systems) was chosen as part of the project strategy for climate change mitigation while the desalination is part of the adaptation strategy.

On the other hand, the distribution of water through taps in the backyards is a strategy to bring together the maximum number of beneficiaries/users, which should attract qualified private operators, this ensuring the sustainability of the WSS.

However, the spreading of the COVID-19 Pandemic may imply some changes particularly in terms of adapting the education and construction plans to the need for social distancing and other preventive measures. Extra funds have to be added to cover the increase of material, and infrastructure.

8.4 Recommendations

Recommendations	Actor	Deadline
To call a JLCB meeting to assess the project status and the eventual need to adapt/revise workplan in light of the new developments (COVID- 19 Pandemic)	DNAAS /Enabel	Q4 2020
To organize a workshop to discuss about experiences on the private management of water supply systems, preferably before the launching of tenders for contracting the operators of the new water systems built under this intervention (as it will be an opportunity to get new inputs that might eventually improve the model);	Enabel /DNAAS	Q1 2021
To continue, within the project financial limits, to support the provincial updating of the water database, particularly in Chokwe district, (where the project sites are located), since the government is lacking of financial resources to do so but it needs updated and accurate data for better management/decision making process.	DNAAS /Enabel	Q1 2020
To encourage the district authorities (SDPI-Chokwe) to allocate some funds, within their limited budgets, to ensure the expected project follow up activities, such as supervision missions.	DNAAS	

9 Annexes

9.1 Quality criteria

For each of the criteria (Relevance, Efficiency, Effectivity and Potential sustainability) several sub-criteria and statements regarding the latter have been formulated. By choosing the formulation that best corresponds to

1. RELEVANCE: The extent to which the intervention is in line with local and national policies and priorities as well as with the expectations of the beneficiaries.				
<i>Do as follows to calculate the total score for this quality criterion: At least one 'A', no 'C' or 'D' = A; two 'B's' = B; at least one 'C', no 'D' = C; at least one 'D' = D</i>				
Appraisal of RELEVANCE: Total score	A	B	C	D
	X			
1.1 What is the current degree of relevance of the intervention?				
X	A	Clearly still anchored in national policies and the Belgian strategy, meets the commitments on aid effectiveness, extremely relevant for the needs of the target group.		
...	B	Still embedded in national policies and the Belgian strategy (even though not always explicitly so), relatively compatible with the commitments on aid effectiveness, relevant for the needs of the target group.		
...	C	A few questions on consistency with national policies and the Belgian strategy, aid effectiveness or relevance.		
...	D	Contradictions with national policies and the Belgian strategy, the commitments on aid effectiveness; doubts arise as to the relevance vis-à-vis the needs. Major changes are required.		
1.2 Is the intervention logic as currently designed still the good one?				
X	A	Clear and well-structured intervention logic; vertical logic of objectives is achievable and coherent; appropriate indicators; risks and hypotheses clearly identified and managed; intervention exit strategy in place (if applicable).		
	B	Appropriate intervention logic even though it could need certain improvement in terms of hierarchy of objectives, indicators, risks and hypotheses.		
	C	Problems pertaining to the intervention logic could affect performance of an intervention and its capacity to control and evaluate progress; improvements required.		
	D	The intervention logic is faulty and requires an in-depth review for the intervention to possibly come to a good end.		

2. EFFICIENCY OF IMPLEMENTATION TO DATE: A measure of how economically resources of the intervention (funds, expertise, time, etc.) are converted in results.				
<i>Do as follows to calculate the total score for this quality criterion: At least two 'A's, no 'C' or 'D' = A; two 'B's' = B, no 'C' or 'D' = B; at least one 'C, no 'D' = C; at least one 'D' = D</i>				
Appraisal of the EFFICIENCY: Total score	A	B	C	D
		X		
2.1 To what extent have the inputs (finances, HR, goods & equipment) been managed correctly?				
	A	All inputs are available in time and within budget limits.		
X	B	Most inputs are available within reasonable time and do not require considerable budgetary adjustments. Yet, there is still a certain margin for improvement possible.		
	C	The availability and use of inputs pose problems that must be resolved, otherwise the results could be at risk.		
	D	The availability and management of the inputs is seriously lacking and threaten the achievement of the results. Considerable changes are required.		

2.2 To what extent has the implementation of activities been managed correctly?	
	A Activities are implemented within timeframe.
X	B Most activities are on schedule. Certain activities are delayed, but this has no impact on the delivery of outputs.
	C The activities are delayed. Corrective measures are required to allow delivery with not too much delay.
	D The activities are seriously behind schedule. Outputs can only be delivered if major changes are made to planning.
2.3 To what extent are the outputs correctly achieved?	
X	A All outputs have been and will most likely be delivered on time and in good quality, which will contribute to the planned outcomes.
	B The outputs are and will most likely be delivered on time, but a certain margin for improvement is possible in terms of quality, coverage and timing.
	C Certain outputs will not be delivered on time or in good quality. Adjustments are required.
	D The quality and delivery of the outputs most likely include and will include serious shortcomings. Considerable adjustments are required to guarantee at least that the key outputs are delivered on time.

3. EFFECTIVENESS TO DATE: Extent to which the outcome (specific objective) is achieved as planned at the end of year N				
<i>Do as follows to calculate the total score for this quality criterion: At least one 'A', no 'C' or 'D' = A; two 'B's = B; at least one 'C', no 'D' = C; at least one 'D' = D</i>				
Appraisal of EFFECTIVENESS: Total score	A	B	C	D
		X		
3.1 At the current stage of implementation, how likely is the outcome to be realised?				
	A	It is very likely that the outcome will be fully achieved in terms of quality and coverage. Negative results (if any) have been mitigated.		
X	B	The outcome will be achieved with a few minor restrictions; the negative effects (if any) have not had much of an impact.		
	C	The outcome will be achieved only partially, among other things due to the negative effects to which the management was not able to fully adapt. Corrective measures should be taken to improve the likelihood of achieving the outcome.		
	D	The intervention will not achieve its outcome, unless significant fundamental measures are taken.		
3.2 Are the activities and outputs adapted (where applicable) in view of achieving the outcome?				
X	A	The intervention succeeds to adapt its strategies/activities and outputs in function of the evolving external circumstances in view of achieving the outcome. Risks and hypotheses are managed		
	B	The intervention succeeds rather well to adapt its strategies in function of the evolving external circumstances in view of achieving the outcome. Risk management is rather passive.		
	C	The project has not fully succeeded to adapt its strategies in function of the evolving external circumstances in an appropriate way or on time. Risk management is rather static. A major change to the strategies seems necessary to guarantee the intervention can achieve its outcome.		
	D	The intervention has not succeeded to react to the evolving external circumstances; risk management was not up to par. Considerable changes are required to achieve the outcome.		

4. POTENTIAL SUSTAINABILITY: The degree of likelihood to maintain and reproduce the benefits of an intervention in the long run (beyond the implementation period of the intervention).				
<i>Do as follows to calculate the total score for this quality criterion: At least three 'A's, no 'C' or 'D' = A; maximum two 'C's, no 'D' = B; at least three 'C's, no 'D' = C; at least one 'D' = D</i>				
Appraisal of POTENTIAL SUSTAINABILITY: Total score	A	B	C	D
		X		
4.1 Financial/economic sustainability?				
	A	Financial/economic sustainability is potentially very good: Costs related to services and maintenance are covered or reasonable; external factors will have no incidence whatsoever on it.		
X	B	Financial/economic sustainability will most likely be good, but problems may arise in particular due to the evolution of external economic factors.		
	C	The problems must be dealt with concerning financial sustainability either in terms of institutional costs or in relation to the target groups, or else in terms of the evolution of the economic context.		
	D	Financial/economic sustainability is very questionable, unless major changes are made.		
4.2 What is the degree of ownership of the intervention by the target groups and will it prevail after the external assistance ends?				
	A	The Steering Committee and other relevant local instances are strongly involved at all stages of execution and they are committed to continue to produce and use the results.		
X	B	Implementation is strongly based on the Steering Committee and other relevant local instances, which are also, to a certain extent, involved in the decision-making process. The likelihood that sustainability is achieved is good, but a certain margin for improvement is possible.		
	C	The intervention mainly relies on punctual arrangements and on the Steering Committee and other relevant local instances to guarantee sustainability. The continuity of results is not guaranteed. Corrective measures are required.		
	D	The intervention fully depends on punctual instances that offer no perspective whatsoever for sustainability. Fundamental changes are required to guarantee sustainability.		
4.3 What is the level of policy support delivered and the degree of interaction between the intervention and the policy level?				
	A	The intervention receives full policy and institutional support and this support will continue.		
X	B	The intervention has, in general, received policy and institutional support for implementation, or at least has not been hindered in the matter and this support is most likely to be continued.		
	C	The sustainability of the intervention is limited due to the absence of policy support. Corrective measures are required.		
	D	Policies have been and will most likely be in contradiction with the intervention. Fundamental changes seem required to guarantee sustainability of the intervention.		
4.4 To what degree does the intervention contribute to institutional and management capacity?				
	A	The intervention is integrated in the institutions and has contributed to improved institutional and management capacity (even though it is not an explicit objective).		
X	B	The management of the intervention is well integrated in the institutions and has contributed in a certain way to capacity development. Additional expertise may seem to be required. Improvement is possible in view of guaranteeing sustainability.		
	C	The intervention relies too much on punctual instances rather than on institutions; capacity development has failed to fully guarantee sustainability. Corrective measures are required.		
	D	The intervention relies on punctual instances and a transfer of competencies to existing institutions, which is to guarantee sustainability, is not likely unless fundamental changes are made.		

9.2 Resources in terms of communication

The photographer 'Isabelle Corthier' visited in August 2019 the sites where the project was scheduled to be implemented, providing photo material at the beginning of the project; this shows for example the problems of salinity (salt-attacked pump) as in the photo below, which does not allow the population to have access to drinking water. (see photos in the report)

Communication materials were also collected during the project kick-off sessions in the fields.

The project has also cartography and aerial view of the sites.

This will allow us to communicate positively on the project.