

# Multisectoral Needs Assessment Report

WASH and Shelter/NFI

---

## MOZAMBIQUE, CABO DELGADO – MUEDA AND NANGADE DISTRICT



EDUARDO MONDLANE TRANSIT CENTER, MUEDA SEDE

**Date:** 11/05/2021

**Author:** Maud Rivoal, Emergency WASH Coordinator,  
Solidarités International

**Point of  
Contact:** Philippe BONNET, Emergency Country Director,  
Solidarités International

## Contents

Geographic classifications .....	3
Introduction.....	3
Methodology .....	5
Approach .....	5
Resources .....	5
Timeline .....	6
Findings .....	6
Demography.....	6
1. Geographic information (hydrogeology, climate, soil) .....	6
2. Average household composition and IDPs figure .....	6
3. Government plan regarding IDPs.....	7
4. Physical access and logistic: .....	8
5. Funding and partners:.....	8
Shelter .....	8
1. Shelter type and NFI needs .....	9
Access to water .....	9
1. Access to water sources.....	9
2. Existing water supply systems .....	11
3. Water quality and treatment.....	12
4. Collection and storage practices, water consumption .....	12
Access to sanitation.....	13
1. Access to sanitation .....	13
2. Child feces management practices .....	13
Health and hygiene .....	13
1. Epidemiology and endemic diseases .....	14
2. Ongoing or recent outbreaks .....	14
3. Hygiene practices, knowledge and material.....	14
4. WASH in Health facility .....	14
Priority needs identified.....	15
Intervention proposed strategy .....	16
Annexes .....	17
Annex A: Segregation of IDPs population per municipality .....	17
Annex B: Cobertura SAnejamento in Cabo Delgado .....	18
Annex G : DHS.....	<b>Erreur ! Signet non défini.</b>
Annex H : Picture .....	19

## Geographic classifications

Mozambique is composed by 10 Provinces and a capital with a Province Status. The provinces are subdivided in 129 districts, composed by administrative posts and localities. The assessment focused on Cabo Delgado province with 2,320,261 inhabitants (2017), in 2 of the 15 districts; Montepuez 185,635 inhabitants and Mueda 120,067 inhabitants.



Figure 1: Mozambique Provinces



Figure 2: Cabo Delgado Districts

## Introduction

Cabo Delgado Province in Mozambique is affected since 2017 by a conflict in between an extremist Islamic sect named Ansar al-Sunna, fighting from 2019 under ISCAP (Islamic State Central African Province) banner, and Mozambique security forces supported by various Russian or South African private military company. If Mozambican security forces have been the primary target of the insurgency, since 2018 Civilians have been systematically targeted triggering massive displacements. Violence caused by the conflict, combined with climate shocks, including increasing cyclones frequency, continue to lead to massive displacement and an increasingly rapid deterioration of the humanitarian situation in these northern regions of the country, which were already among the poorest before the conflict. By December 2020, before the city of Palma was seized by the insurgents, more than 670,000 people had already been displaced in the provinces of Cabo Delgado, Nampula, Niassa and Zambezia. Of these, 607,000 settled in Cabo Delgado province, and 60,000 in Nampula province. Nearly 580,000 people were displaced from their homes in 2020 alone, evidence of the worsening crisis, which is also spreading geographically.

Cholera cases have increased in Cabo Delgado, particularly affecting displaced persons, with severe disruptions to basic social services, health, water, sanitation, and hygiene. The conflict caused the destruction (or disruption of services) in 36% of health facilities throughout the province and, by the

end of 2020, there were no functional clinics in the districts most affected by the conflict, such as Mocimboa da Praia, Macomia, Muidumbe, and Quissanga). The COVID-19 epidemic throughout the country continues to weigh on a fragile health system, amid extremely limited access to water, sanitation and sanitation.

In the last quarter of 2020, more than 2.7 million people experienced severe acute food insecurity in Mozambique (Sitrep OCHA Mars 2021), including at least 840,000 in Cabo Delgado, Niassa and Nampula alone.

The increase in violence has also had an impact on humanitarian access, despite growing needs, particularly in the northern districts of Cabo Delgado, and humanitarian organizations have faced extraordinary challenges, either due to the insecurity itself, infrastructure, or administrative obstacles. Several attacks in recent months on district capitals (Palma, Mocimboa da Praia, Quissanga, Muidumbe, and Macomia, among others) have led many humanitarian actors to reposition themselves further south in the province, reducing their ability to assess and respond to growing needs.

The main objectives of the assessment are therefore as follows:

- To assess the multisectoral WASH and shelter/NFI needs of displaced people, particularly those living in host communities, or relocation sites.
- To evaluate and assess the multisectoral impact and needs in the communities hosting displaced persons, particularly in Mueda and Nangade district.
- To understand and evaluate health environment and epidemic risks in the living area of displaced people.
- Evaluate the specificity of the local context: risks and constraints, structure of authorities, access and security, operational presence of partners.

## Methodology

The assessment methodology is detailed hereafter:

### Approach

A review of secondary data was firstly conducted in Cabo Delgado District focusing on Metuge, Ancuabe, Pemba, Montepuez, Metuge and Nangade districts which are the most affected district in the province with more important number of IDPs<sup>1</sup> and/or where few actors or emergency partners are present and accessible regarding security. Previous existing assessment reports, WASH cluster matrix, CCCM site reports and discussion with operational partners were initiated (MSF OCB and OCS, UNICEF, AeA, JAM, Helvetas, ACF...) as well as consultation of authorities at district level (state secretariat; Department of infrastructures and Department of health representatives). A pre-identification of the targeted districts with highest needs and most affected by the presence of displaced persons was carried out from IOM DTM round 10.

This review of secondary data was followed by a field visit, with objectives of meeting with representatives of key authorities, presenting the organization, process and objectives of the evaluation. State authorities, security officials and representatives of the concerned ministries (SDPIs, District administration) but also partners and operational NGOs on the grounds were met during the first days to refine the Districts and location to be assessed. A total of 4 districts were assessed; Ancuabe, Montepuez, Mueda and Nangade. A translator was recruited in order to organize and implement focus group discussions in all targeted districts directly with the displaced persons. On top, 2 enumerators were trained and implemented a small household survey in the communities hosting displaced persons in Montepuez Sede (main town). Quantitative and qualitative approaches were used in this field data collection to gather information on WASH, Health and shelter/NFI sectors from multiple sources. The following tools and methods were used:

- Key Informant Interview (KII): each time possible, interviews were conducted with the Chefe de posto, SDPI, Chefe de comunidades. A semi-structured paper questionnaire was used to evaluate community needs around WASH and Shelters sectors, as well as to obtain general information. A total of 6 KII was realized.
- Focus Group Discussion: different focus groups were held separately with men and women, some targeting IDPs living in site and in the host community, others members of the IDP host community. The objective was to obtain a representative sample of the community for each FGD. Each FGD was led by a facilitator, with a translator able to use 3 local languages to ensure understanding of all. From 2 to 24 participants of various ages and background were involved in each discussion. A total of 9 FGDs were conducted in 7 relocation sites.
- HH questionnaire: A multi-sectoral questionnaire was developed using KOBO's data collection system. Interviewers were responsible for implementing the questionnaire in Montepuez Sede host communities, with daily target objectives. Due to certain limitations and constraints (logistics, human resources, and timing), it was not possible to implement a survey using a rigorous randomized cluster sampling methodology. Therefore, for each area selected for the implementation of the HH questionnaire, triangulation was carried out through the KII, technical observation and FGD where possible. A total of 19 HH questionnaires were completed in 2 barrios of Montepuez sede.
- Direct observation: To triangulate the data from the KII and HH questionnaires, technical observations were made at the WASH facility level. Certain water supply systems in the target areas were evaluated - type, functionality, operation and maintenance, specificity, etc. - as well as some public (and private, when possible) sanitation systems - type, functionality, cleanliness, operation and maintenance, emptying services, etc.

### Resources

The assessment team was composed of:

Name	Position	Comments
Philippe Bonnet	Emergency Head of Mission	
Maud Rivoal	Emergency WASH coordinator	
Roberto Conçalvez Alfaica	Assessment Team Leader	Liaison with authorities
Daniel Pascoal	Translator	Translation and data collection

<sup>1</sup> IOM DTM Round 9 Dec 2020

Wilson Ntikule	Translator	Translation and data collection
Sufo Artur	Enumerator	Data collection

The team was recruited locally for the time of the assessment, except for Roberto. Translators have been tested in different local languages to ensure quality of the KII and FGDs.

## Timeline

The initial field visit took place from the 1st to the 13<sup>th</sup> May. The data field collection was carried in Ancuabe, Montepuez, Mueda and Nangade.

The assessment was implemented at the end of the rainy season.

## Findings

The data collected in the field through different tools (observation, KII, FGD, etc.) were analyzed and contextualized to determine the following results.

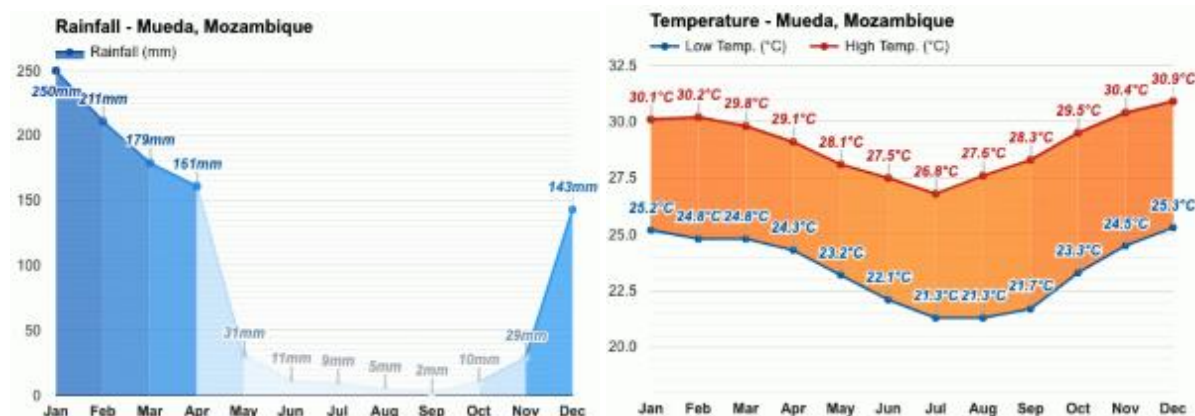
This report is focusing on Mueda and Nangade districts.

## Demography

### 1. Geographic information (hydrogeology, climate, soil)

The Mueda Plateau lies between the Ruvuma River on the north, which forms the border with Tanzania, and the Messalo River on the south. It is named for the town of Mueda, the principal town on the plateau.

The highest portion of the plateau reaches above 1000 meters elevation. The western edge of the plateau forms a steep escarpment, dropping to rolling plains. The plateau has an area of 1715 square kilometers. The Macomia Plateau lies to the south, across the Messalo River. The Makonde Plateau lies to the north, across the Ruvuma River in Tanzania. Mueda, at an elevation of 847 meters, has an average annual rainfall of 1,093 mm, and a mean annual temperature of 21.9 °C. Most of the rainfall occurs during the October-to-April wet season.



The plateau is composed of includes metamorphic and volcanic rocks. The soils of the plateau are classified as nitisols.

Mueda is situated in a plateau with a porous soil infiltrating water to very important depth making difficult access of underground water.

### 2. Average household composition and IPDs figure

As often, accurate demographic data are difficult to collect. DTM, and government are ensuring registration of IDPs in all sites and districts, however the constant movement of population is creating difficulties in effective registration and accurate data, being able to get updated and accurate IDPs figures is not an easy task.

On average a family is composed by 4,5 persons however; during focus group discussion the average of the household found was 8 persons, the fact that the FGDs were done in mostly rural areas can be one of the reasons of the biggest number. Only 1% of the women interviewed were pregnant.



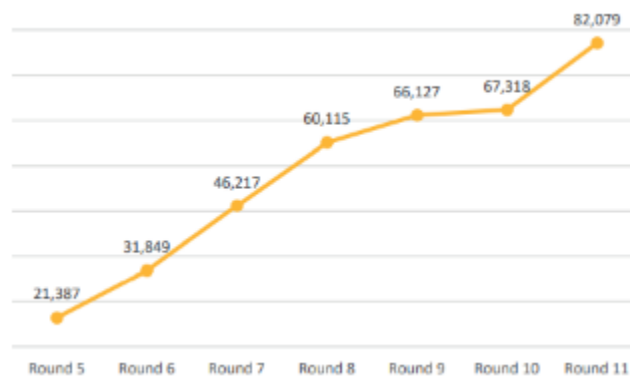
The table below is resuming the last update regarding IDPs numbers in host communities and sites in Mueda districts. Figures have been provided by the SDPI in Mueda and updated from April 2021. The segregation of IDPs population per municipality is available in Annex A.

April 2021	Families	Persons	Total men	%men	Total women	%women	Under 18 years	% Under 18 years
Area Municipal	9753	48652	10577	22%	15135	31%	22940	47%
Posto administrativo de Mueda Sede	3303	12166	2431	21%	3889	32%	5847	48%
Posto adminastrivo de Imbuho	3354	13239	2788	21%	4208	32%	6244	47%
Posto administrativo de Ngapa	2742	13431	2914	22%	4216	32%	6295	46%
Posto administrativo de Chapa	1441	5419	1134	21%	1731	32%	2554	47%
Posto administrativo de Negomano	225	780	132	17%	215	28%	308	39%
<b>MUEDA DISTRICT</b>	<b>20,818</b>	<b>93,687</b>	<b>19,976</b>	<b>21%</b>	<b>29,394</b>	<b>31%</b>	<b>44,188</b>	<b>46%</b>

In Mueda almost 98% of the IDPs are leaving in the host community, the authorities are planning to allocate lands for the IDPs in some weeks/months to discharge the community and ease life of the IDPs. A total of 8000 families are planned to be reallocated in 4 sites: Mpempe; Lyanda; Eduardo Mondlane and Namdimba. A last site is planned at the entry point in Negomano, border with Tanzanian, from where the IDPs fled and are coming back to Mozambique.

During focus group discussion, the majority of the respondents were coming from Mocimboa de la Praia (89%) and Palma and arrived in Mueda around a year ago.

IOM DTM Round 11, with data taken before the last Palma attacks showed the following evolution of IDPs arrival in Mueda district:



Displacement has been occurring for several years – the displaced persons interviewed reported arriving from 2017 to May 2021. 100% of the person declared having fled home because of insecurity; 100% of the persons questioned did not intent to return to their home until the security is guaranteed, however, 98% of the families said that they would like to return when the conditions are met. Local authorities, stated they are anticipating the arrival of further 20 000 IDPs, among which, 10 000 would settle in the District.

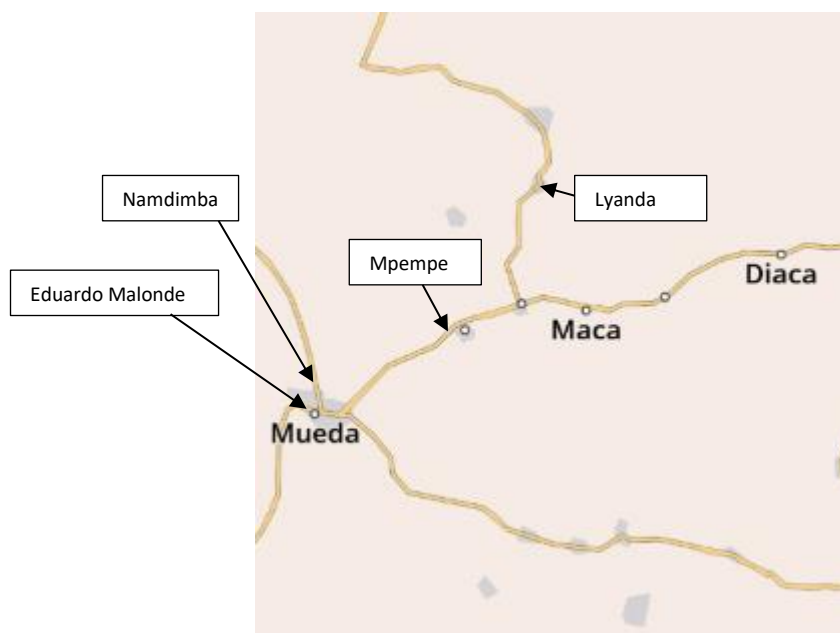
During the assessment, no tensions were observed by the team between IDPs and host communities, but pressure on resources such as food and water are worthening the living condition of the host community and conflicts could appear as resources get rarer, which is as well a fear expressed by local authorities.

### 3. Government plan regarding IDPs

Most of the IDPs present in Mueda district are actually living within host communities. The government and district administration are planning to provide a land for each family.

The relocation sites will be:

Site	Number of HH targeted	Number of water point in 500m	Latrines	Status	Authorities priority in settlement setting	Distance from Mueda Sede
Negomano	No info	river	0	uninhabited	1	170km
Lyanda	2000	0	0	uninhabited	2	25km
Mpembe	2000	0	0	No info	3	16km
Eduardo Mondlane	2000	1 fountain from network	4 emergency latrines	uninhabited	1	5km
Namdimba	2000	0	0	No info	3	6km



#### 4. Physical access and logistic

Access to Mueda is possible by UNHAS flight, 3 times a week. It is also reachable by a dirt road, 5 hours drive from Montepuez in the dry season. The laterite road is practicable in dry season, but at least 1 bridge on the Rio Messalo can be a problem in rainy season as flooding are frequent and the bridge overflowed by water. The road is mainly covered by Vodacom network.

In Mueda, all network is functioning. Electricity has been off for at least 1 year as the line is coming from Mocimboa de Praia and has been destroyed during the 2020 attacks. The entire district is now relying on private generator. Except for the richest neighborhood and institutions, no electricity is available.

Negomane is 170km from Mueda sede, 5 hours by car on a laterite road.

#### 5. Funding and partners

Despite identified humanitarian needs, that are increasing, it has been observed a global lack of institutional funding and actors in the area worthening the situation and leaving communities to cope on their own with the situation and hosting displaced persons.

### Shelter and NFI



## 1. Shelter type and NFI needs

During FGDs in Mueda and Nangade, NFI was the third need expressed by the IDPs.

In Mueda District, 97% of the IDPs are for now staying with host communities. During FGDs the number of persons per house was found as 8 persons on average. In the villages around 80% of the shelter are made in “matope” with local material (wood, bamboo, grass) found by the families in the bush surrounding the shelter. IDPs and host communities are sharing the same NFIs owned by the host community family.

The weather in Mueda is very cold during the night and mattress, blankets and cooking set are the items more frequently missing within according the families as well as cloths. 62% of the families are also reporting that they cannot treat water through boiling because of lack of pots.

The IDPs reported not to have been supported with shelter kits nor NFI kits leading to difficulties to cook, fetch water and sleep in dignity.

Authorities have announced that sites will be allocated to IDPs families to release pressure on the host community. Each household will have to clean the plot, build a house from material collected in the bush. Tools and NFIs kits will so be needed to ensure a start to the families newly settled in the sites. A total of 10 000 families are for now targeted.

## Access to water

### 1. Access to water sources

In Mueda and Nangade District, water is the second need expressed by the IDPs and HC after food.

81% of the IDPs interviewed reported having a waterpoint in their household in their original place; or going to the neighborhood. Water quantity was not an issue and was always reported to be free. Since they are displaced, water is difficult to find, especially for the IDPs not settled in an area provided by Mueda sede water network (Mpempe; Lyanda etc). 100% are using surface water from the river or from cistern owned by the host community.

All the persons interviewed explained that lack of water is negatively affecting hygiene behaviors as less bath are taken (1 per day instead of 3 before displacement) and cloth are washed only every 7 days. At the end of the dry season communities (IDPs and HC) are also declaring lacking water for drinking.

#### Mueda District generalities:

Access to water is one of the main issues in Mueda District. Mueda is situated in a plateau with a porous soil infiltrating water to very important depths making access to underground water difficult.

Traditionally the population in Mueda is building cisterns of 10 to 20m<sup>3</sup> as rain water harvesting system, (when iron sheet roofs) allowing the families to store water for the dry season from May to November or December. The families who do not have cisterns have to fetch water in river 5 to 10km from their living place, or to buy water to water trucks or small sellers on bike or bicycles. The price of the water is then varying on the demand from 5 to 50 met/20L (0,10 to 1 USD).



Cistern in Lyanda Mueda District

#### Mueda Sede:

Water networks from Mueda and Nangade are/were supplying water to the district. The water system of Mueda is composed by 2 water stations, providing water to Mueda sede and other administrative post around. Normally, at the end of the dry season (from September to December) the water resources are decreasing or drying and the Fundo de Investimento e Património do Abastecimento de Água (FIPAG) has to monitor and provide water according established timetable to save water until the rainy season. Since at least 1 year, electricity in the district is no more available, which has an impact on the water production; the stations are running on generators only 7 hours instead of 12h in normal time. Thus, water production has reduced from 960m<sup>3</sup>/day to 660m<sup>3</sup>/day in the past year, while in the meantime they has been an increase of population in the district and therefore an increase in demand of water. Unfortunately, it was not possible during the assessment to determine the number of persons covered by the 2 water network systems.

Most of the area visited are currently depending on the water network from Mueda sede. Water is available at the time being; however, increase of population (more than 60 000 persons), lack of electricity and the seasonal lack of water resource from September to December are alarming triggers worthening an already difficult situation.

#### Lyanda and Mpempe :

The area from Nangade district border to Mpempe is covered by a water network managed by Nangade district. According the population, SDPI and FIPAG, the network is not providing water since at least 1 year. All the population and IDPs leaving in host community (HC) are depending on rivers and cistern only. Water have been described as second needs in the community after food. The cistern, owned by 40% of the community and is usually the main resource of water during dry season, but pressure coming from IDPs hosted by the families is increasing water demand and rain water in the cistern are no more lasting until the rain. Near Lyanda a small dam has been built by the authorities to create a water storage and allow the population to access water longer; requiring 30 minutes to 1hour to reach the area. From October to December, the dam is dry, some persons are digging wells along the river side to find water; or other are buying to a water truck or water sellers coming in the village.

During the visit, Servico-Distrital-de-Planeamento-e-Infra-Estrutura (SDPI) and FIPAG from Mueda did not have information regarding the water network in Nangade, and Nangade representative were not reachable. Nangade is consider as unsecure area by the population, and many of the inhabitant fled. Nevertheless; the chance to have no more operators, electricity and damage on the water station or water network in Nangade is high.

#### Negomano:

Negomano is situated at the Tanzanian border. Refugees coming from Tanzania are entering back into the country and settling for 2 or 3 days. Some of them are staying in host communities, when the majority is continuing to Mueda, Montepuez and other districts. In Negomano, the water network is no more functioning, and the population and IDPs are using water from the Rovuma river as resources. There is no treatment and open defecation is practiced by the IDPs arriving in the area.

#### Water access in new reallocation sites:

5 reallocation sites have been selected by the authorities to host the IDPs and decrease pressure on host communities and provide opportunity to the IDPs to own a land and a traditional house. Most of the sites have been purposely established on main water network existing pipe. But lack of water, increase of population and collapse of electricity are slowing the process for network extension and possibility to provide reasonable quantity of water to all the population.

- Eduardo Mondlane site is located around 300m far from a water distribution line. An extension of the network with creation of fountains is presented by SDPI and FIPAG as the best solution to provide water to the 2,000 HH planned on site. The rapid survey on the existing pipeline showed that pressure is low and an extension of the network will be possible but will have to ensure smallest distance possible from the pipeline. Rate of 300 pers/water point will be hardly obtained as multiplication of water point could have an impact on the overall network. For the time being, a small transit site is occupied by 54 families benefitting of water from 1 fountain connected to the network. Queuing is long and it can take more than 5 hours to get water according FGDs.
- Lyanda and Mpempe: The 2 sites are located along a water network line. This line is from the Tampa system; located and depending of Nangade district. The network is not providing water since 1 year as electricity is cut

in Nangade, many persons fled and the area is not consider as safe. Around the 2 sites, no water source has been found. It would be possible to ensure water trucking from Mueda sede to the sites (26 and 25km) until the water network and the extension are functional; which mean several months of water trucking.

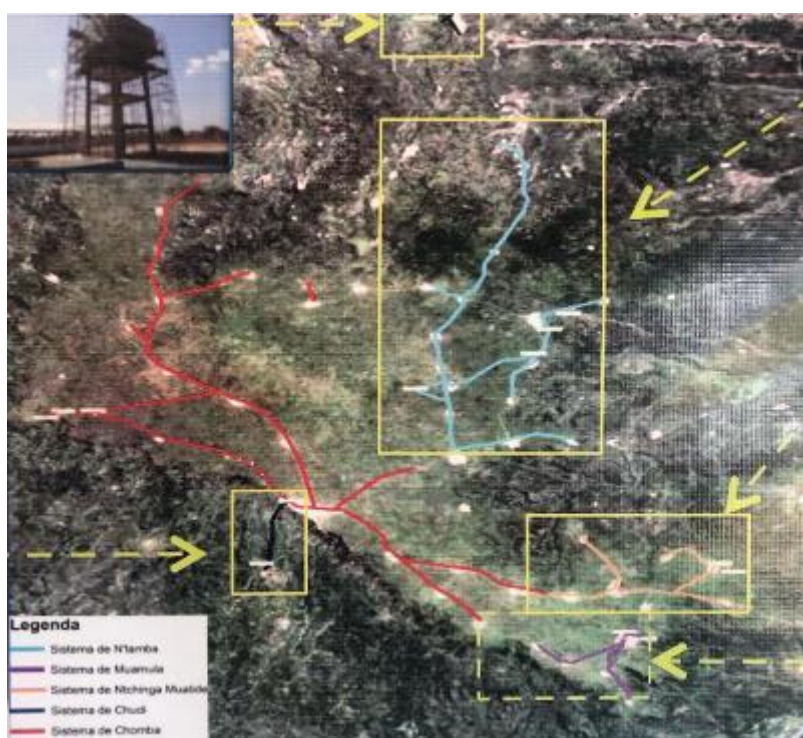
- Negomano is a transit and relocation area. The network is no more functioning. A river is passing by Negomano and an emergency water station could be set up in the meantime has longer term solution such as borehole drilling is implemented.

## 2. Existing water supply systems

### Water networks:

A visit to the FIPAG in Mueda Sede was conducted in order to ensure a complete overview of the global water system in the district and its management.

Mueda District is served mostly with water network. 5 systems are supplying water: Tchiudi (Mueda), Tchamba (Mueda); Tampa (Nangade); Ntchinga and Muamula (Muidumbe). Due to the conflict, insecurity, attacks and vandalism, networks from Nangade is no more functional and network from Mueda is impacted from the lack of electricity. No information has been collected on Muidumbe networks).



Water networks synopsis in Mueda district

During the assessment, a focus was done on the 2 water systems in Mueda district: Tchamba and Chiudi.

In a normal configuration, the 2 networks are respectively producing 600 and 360m<sup>3</sup>/day. Due to electricity collapse one year ago in Mueda (electricity line is coming from Mocimboa da praia); the water stations are running on generator and time of operation had to be decreased to half allowing a daily production of 660m<sup>3</sup> only. The water resource's yield is also reducing at the end of the dry season (September to December) leading to an alternated delivery of water in the different water sections served. This alternate mechanism has been found to ensure production and distribution of water all along the year. Increase number of persons in the district will thus increase the demand and risk of water scarcity can be anticipated.

In Tchiudi, 3 sources are catch to ensure provision of water; the water is then collected in a water retention area ensuring storage for the dry season. From the dam the water is pump via a submersible pump to a decantation tank. Flocculation is done with aluminum sulfite through an automatic pump. Laminar decantation is done and water is passing by a sand filter to reach stabilization reservoir with pre-chlorination. From the reservoir 3 pumps in parallel are pumping water to the network. Dosatrons are ensuring in-line chlorination all along the network.





Information taken from FDGs give an average of **9,4L of water/pers/day**. However, people explained that they were often taking bath and washing clothes directly at the river when possible due to distance and time, and that they were decreasing the frequency of bathing and washing clothes.

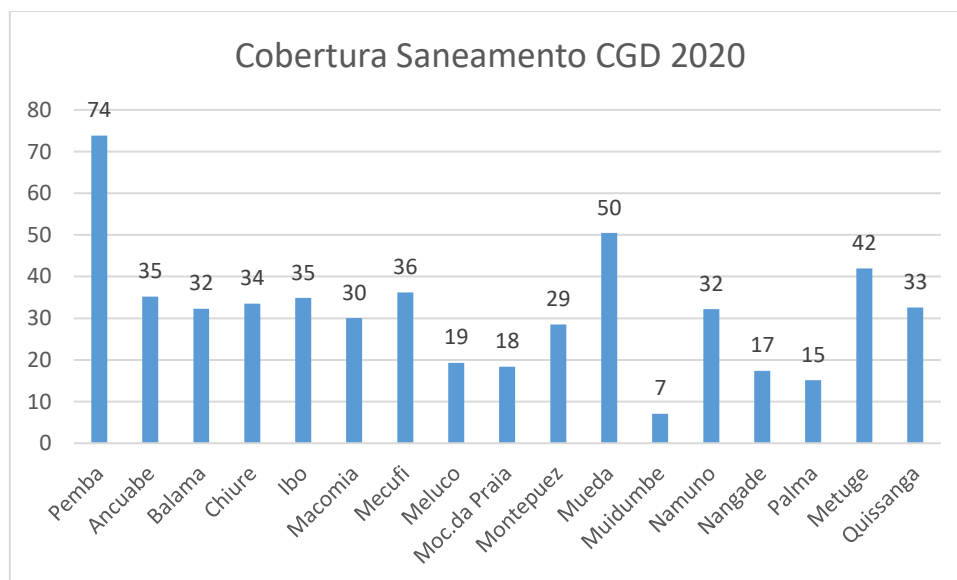
An average of 5.2 containers (from 1 to 26) used for both storage and/or transport was observed per HH, with **10% of HHs reporting only one container**. This corresponds to an average of 0.7 containers per individual. In only around 50% of the cases were all containers clean and in 34% of the cases some containers had a lid.

## Access to sanitation

### 1. Access to sanitation

The sanitation situation was assessed as not being the main issue in the area, with **80% of the population declaring possessing a latrine**. Indeed, 97% of the IDPs are living in the host communities and sharing sanitation premises. Most of the household are using traditional latrines without slabs; and bathing in the same area, aside the latrine, with sometime a soakpit.

SPDI is reporting a coverage of latrine at 50% in Mueda district, with traditional latrines considered as hygienic and thus not reported.



Couverture en assainissement in Cabo Gelgado 2020 (SPI - C. Delgado)

Segregated data can be found in annex.

#### Sanitation in sites:

Only few emergency latrines are available in the site: 3 traditional and 4 emergency latrines (done by helpcode on 13/05/2021) in Eduardo Mondlane site. Sanitation facilities are shared by 54 families (38pers/lat).

**In all the other reallocation sites, no latrines are present as of May 2021.** A need of emergency latrines, and distribution of slabs in a second time will be needed to ensure sanitation in the sites.

100% of the families declared having a traditional latrine in their house of origin.

Some tensions have been observed between host and IDPs sharing the latrines regarding cleaning the premises. The families are declaring managing and ensuring cleanliness, but the sharing of tasks seems difficult.

### 2. Child feces management practices

According women FDGs, child feces management is practiced, feces are buried or taken to the latrines. Observations did not show evidence of open defecation in the immediate area of the living environment or latrines.

## Health and hygiene

## 1. Epidemiology and endemic diseases

76% of the households reported malaria as the main diseases affecting the family in the last 3 weeks. MSF reports a prevalence of **35% of malaria, 11% of ARI and only 2% acute watery diarrhea** among IDP and HC consultations on week 18, with 33% of consultations for children under 5 years of age.

Admissions for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) are not alarming according to MSF report.

No cholera outbreak was reported in the district in 2021 neither than COVID-19 cases.

## 2. Ongoing or recent outbreaks

At the time of the assessment, no ongoing outbreaks reported. However, the area is showing high prevalence of malaria, according data from Health centers and MSF.

## 3. Hygiene practices, knowledge and material

None of the households questioned declared having soap at the moment, and all explained that it is too expensive to afford. **Key hand washing moments were not known by the interviewed population**, and confirmation has been given by SPDI explaining that only few hygiene promotion activities have been performed in the area. Hand washing, bathing and cleaning cloth is performed only with soap. Ashes to replace soap is not common and known as a solution.

Basic hygiene in general is not known, or practiced, and the current situation has an important impact on corporal hygiene:

- Material cannot be bought by the IDPs as they do not have means, and HC is supporting them which is having an impact and availability of funds for hygiene material.
- Lack of water is leading the household to decrease frequency of bathing and time to wash clothes (1 bath per day instead of 3 and 1 washing of cloth every week).
- Few knowledges on basic hygiene rules are observed within both populations.

## 4. WASH in Health facility

Data regarding WASH in health facilities has been provided by the Health Department in Cabo Delgado. Triangulation with data from MSF and observation on the field are not in line with the status provided by authorities; the following resume of needs is following:

Nome US	Posto Administrativo	Sanitation infrastructure			Water	Data MSF
		Improved latrines	Incinerator	Biologic pit		
HR Mueda	Mueda Sede	Yes	Yes	Yes	Not working	No proper waste management. Sanitary installations: lack of water due to lack of electricity.
Mpeme	Mueda Sede	Yes	Yes	Yes	Not working	No proper waste zone. Lack of water
CS Nimo	Mueda Sede	Yes	Yes	Yes	Not working	No proper waste zone. Lack of water
CS Chudi	Mueda Sede	Yes	Yes	Yes	Not working	
CS Nandimba	Mueda Sede	Yes	Yes	Yes	Not working	
CS Chapa	Chapa	Yes	Yes	Yes	Not working	
CS Chilinde	Ngapa	Yes	Yes	Yes	Not working	
CS Namatil	Ngapa	Yes	Yes	Yes	Not working	No proper waste zone. Lack of water
CS Ngapa	Ngapa	Yes	Yes	Yes	Not working	
CS Negomano	Negomano	Yes	Yes	Yes	Not working	
CS Imbuo	Imbuo	Yes	Yes	Yes	Not working	No proper waste zone. Lack of water



CS Nangade	Nangade Sede	Yes	Yes	Yes	Not working	No proper waste zone. Lack of water
CS Muiha	Nangade Sede	Yes	No	Yes	Not working	
CS Ntamba	Ntamba	Yes	No	Yes	Not working	No proper waste zone. Lack of water
CS Ntoli	Ntamba	No	No	Yes	Not working	No proper waste zone. Lack of water
CS Nkonga	Ntamba	Yes	No	Yes	Not working	

## Priority needs identified

Field observations, discussion with actors, authorities, displaced persons and host communities showed alarming needs in the community regarding water sanitation and hygiene, as well as NFI (specially hygiene kit items as soap, Certeza, buckets, and NFI kitchen set, blankets). During focus group discussions, when people were asked on their priority needs, the main answers were food, water and non-food items (kitchen set, soap and buckets).

- First need identified: Water

In Mueda and Nangade District water access in terms of quantity and quality is scarce; indeed, most of the households outside of Mueda city are relying only on river water, when on transit site there is no or not enough water points, resulting in hours of walking or queuing to fetch water. The limited number of water containers available per household is worsening the water scarcity situation by increasing the time of fetching and imposing numerous trips to the water source. No households reported treating water even if they are drinking water from non-protected water sources (river, hand dug wells...).

Emergency water supply appear to be a critical need on transit sites through Surface Water Treatment (SWAT) and water trucking, until a longer-term solution is found. In Mueda district, water sources are few, the district is relying on water stations and water networks. All the system is facing different challenges (lack of electricity, lack of water at the end of the dry season, insufficient water point considering new population figures, network shared on different district, lack of capacities at the FIPAG). Quick network extension is feasible for one of the sites but a total review and upgrade of the network is needed to ensure access to safe and sufficient water to the whole communities in Mueda and Nangade districts.

- Second need identified: Hygiene and sanitation

In the two districts, hygiene knowledge is poor, access to hygiene items is not prioritized by the communities which are using the small income they earn primarily for food. Only some rare and short hygiene promotion campaigns were organized by SPDI in the districts, which is reflected by the fact that no households during FGDs were able to quote at least 3 key moments for handwashing. Hygiene consumables are the most needed items in the communities, specially soap and certeza (chlorine).

At this time, sanitation is a priority in the transit zones in Negomano and Eduardo Mondlane, where emergency latrines are not enough or not present. However, sanitation will also be needed when the families are reallocated to their final sites. A distribution of slabs would support and encourage the HHs to build their latrines, and increase coverage.

- Third need identified: WASH in health facilities

Health centers visited or assessment reports from MSF are showing a global lack of water and poor sanitation systems in the health facilities in Nangade and Mueda districts. Most of the structures (except for Mueda sede) are not served with any water, as the water networks are not fully functioning. Also, latrines need rehabilitation, and a strong and effective waste management system need to be built.

- Fourth need identified: NFI

Lack of NFIs in general has been observed among the communities. Few cooking sets are available or shared between families, making water treatment by boiling impossible. Due to the cold weather at nights in Mueda district, the households are in needs of more blankets, mats and mosquito nets to reduce risks of ARI and malaria, which are preponderant in the area according MSF and data from Health centers. Also, lack of hygiene consumables, soap,

certeza, sanitary pads, etc. are further decreasing capacity of the HHs to practice basic hygiene behaviours, thus increasing risks of waterborne diseases and outbreaks.

The identification of needs led the team to recommend and propose the following intervention strategy:

### **Proposed intervention strategy**

On the basis of the main results, the following axis of intervention should be implemented:

- Emergency response to WASH needs:

At transit centers (Eduardo Mondlane, Negomano and Nanganga) provision of emergency water, sanitation and hygiene as follow:

- Emergency water access in Negomano through SWAT;
- Emergency latrines in Negomano, Nangade and Eduardo Mondlane
- Light hygiene kits distribution in Negomano, Nangade and Eduardo Mondlane

- Linking with improvement of basic WASH services in relocation sites:

These life-saving emergency activities will have to be linked with more sustainable support to ensure WASH basic services in the reallocation sites for a comprehensive response in communities and at public infrastructures:

- Extension of the existing water network in Eduardo Mondlane;
- Diagnosis and rehabilitation works on the water network to increase capacity and ensure access to sufficient and safe water to all the communities in Mueda and Nangade districts;
- Provision of slabs to encourage the construction of household hygienic latrines in the reallocation sites;
- Distribution of complete hygiene kits and dignity kits, and refill of consumables. This will have to be provided in kind as local markets are not strong enough to cope with a significant increase in demand;
- Large-scale hygiene promotion activities in host and displaced populations to enhance knowledge and practices within the communities;
- Improved WASH services in health facilities in areas affected by displacement. Emphasis should be placed on the provision of sufficient safe water supply, including storage capacity, rehabilitation or construction of improved sanitation facilities, creation of appropriate waste management and facilities, support for infection control and prevention and increased hygiene promotion.

## Annexes

### Annex A: Segregation of IDPs population per municipality

FIDPS figures in Mueda district per comunidades sede April 2021									
	Area Municipal	Families	Persons	Total men	%men	Total women	%women	Under 18 years	% Under 18 years
Area Municipal	Barrio Maputo	1033	5422	1179	22%	1687	31%	2557	47%
	Bairro Maimo	1507	6730	1463	22%	2094	31%	3171	47%
	Bairro Lilondo	1149	6334	1377	22%	1970	31%	2987	47%
	Bairro Rovuma	1966	11776	2560	22%	3663	31%	5553	47%
	Bairro Ntandedy	1605	5477	1191	22%	1704	31%	2583	47%
	Bairro Cimento	985	4558	991	22%	1418	31%	2149	47%
	Bairro Namdimb	504	2145	466	22%	667	31%	1011	47%
	Bairro Nimo	467	1904	414	22%	592	31%	898	47%
	Eduardo Mondlane	80	411	89	22%	128	31%	194	47%
	Bairro Chudi	457	3895	847	22%	1212	31%	1837	47%
TOTAL	9753	48652	10577	22%	15135	31%	22940	47%	
Posto administrativo de Mueda Sede	Mpeme	1995	7413	1449	20%	2412	33%	3552	48%
	Litembo	262	993	208	21%	317	32%	468	47%
	Wavi	264	1054	219	21%	338	32%	497	47%
	Miula	32	160	33	21%	52	33%	75	47%
	Quelimane	84	407	84	21%	131	32%	192	47%
	Muma	35	136	29	21%	43	32%	64	47%
	Idovo	80	350	75	21%	110	31%	165	47%
	Ntuchi	519	1497	300	20%	437	29%	760	51%
	Chicalanga	32	156	34	22%	49	31%	74	47%
	TOTAL	3303	12166	2431	21%	3889	32%	5847	48%
Posto administrativo de Imbuho	Imbuho sede	287	1280	266	21%	410	32%	604	47%
	Namaua	707	2737	568	21%	878	32%	1291	47%
	Lyanda	750	3404	739	22%	1060	31%	1605	47%
	Imbuho Aldeia	431	1561	329	21%	496	32%	736	47%
	Nanganda	119	452	94	21%	145	32%	213	47%
	Micalele	428	1391	298	21%	437	31%	656	47%
	Cooperative Mueda	324	1225	246	20%	401	33%	578	47%
	Nanenda	308	1189	248	21%	381	32%	561	47%
	TOTAL	3354	13239	2788	21%	4208	32%	6244	47%
	Posto administrativo de Ngapa	Ngapa sede	296	1274	304	24%	451	35%	519
Nanhamba		106	425	97	23%	192	45%	136	32%
Nachitenje		535	2302	467	20%	707	31%	1128	49%
Namatil		618	4083	885	22%	1163	28%	2035	50%
Nonge		145	678	147	22%	217	32%	314	46%
Mikungu		27	106	23	22%	34	32%	49	46%
Mitama		97	420	92	22%	134	32%	194	46%
Makangolo		142	650	141	22%	208	32%	301	46%
Magogo		95	361	78	22%	116	32%	167	46%
Nachipande		27	97	21	22%	31	32%	45	46%
Chilindi		86	387	84	22%	124	32%	179	46%
Chichi		18	106	23	22%	34	32%	49	46%
Nnenje		164	670	145	22%	213	32%	311	46%
Namulya		9	72	16	22%	23	32%	33	46%
Nangalele		6	40	9	23%	13	33%	18	45%
Nambugale		115	393	85	22%	126	32%	182	46%
Naida		42	258	56	22%	83	32%	119	46%
Mocimboa de R		37	168	37	22%	54	32%	78	46%
Chikundi		37	285	62	22%	91	32%	132	46%
Matu		20	95	20	21%	22	23%	47	49%
Mungano		81	347	75	22%	111	32%	160	46%
Chitope		8	27	6	22%	9	33%	13	48%
Lunango		31	187	41	22%	60	32%	86	46%
TOTAL	2742	13431	2914	22%	4216	32%	6295	46%	
Posto administrativo de Chapa	Chapa sede	442	1131	240	21%	358	32%	533	47%
	Nanhala	767	3163	659	21%	1013	32%	1491	47%
	Homba	68	378	79	21%	121	32%	178	47%
	Lipelua	164	747	156	21%	239	32%	352	47%
	TOTAL	1441	5419	1134	21%	1731	32%	2554	47%
Posto administrativo de Negomano	Negomano Sede	225	780	132	17%	215	28%	308	39%
	TOTAL	225	780	132	17%	215	28%	308	39%
MUEDA DISTRICT	TOTAL	20818	93687	19976	21%	29394	31%	44188	46%

**Annex B: Sanitation coverage in Cabo Delgado**

Taxas de cobertura em Saneamento Rural 2021								
Distrito	População Rural	Latrinas Existentes				Familia Servidas	Pessoas Servidas	Cobertura
		LT	LTM	LM	FS			
Pemba	201846	40267	7687	22120	2325	29807	149035	74
Ancuabe	164114	58642	8151	3395	122	11546	57730	35
Balama	180957	13822	10687	987	173	11674	58370	32
Chiure	316267	31066	19967	1234	249	21201	106005	34
Ibo	13025	270	762	146	27	908	4540	35
Macomia	116405	10193	5669	1333	55	7002	35010	30
Mecufi	62949	29852	1433	3126	117	4559	22795	36
Meluco	37130	6357	1240	195	43	1435	7175	19
Moc.da Praia	123975	83356	4250	302	375	4552	22760	18
Montepuez	261535	43653	10936	3986	629	14922	74610	29
Mueda	217641	21843	11454	10505	333	21959	109795	50
Muidumbe	99363	15931	934	477	65	1411	7055	7
Namuno	247113	38090	6540	9381	119	15921	79605	32
Nangade	88995	10322	2729	363	321	3092	15460	17
Palma	62667	9751	1422	472	121	1894	9470	15
Metuge	89122	6323	7110	369	64	7479	37395	42
Quissanga	50174	3617	1683	1590	34	3273	16365	33
<b>Total</b>	<b>2333278</b>	<b>423355</b>	<b>102654</b>	<b>59981</b>	<b>5172</b>	<b>162635</b>	<b>813175</b>	<b>35</b>

**Annex C : Pictures**



Focus group discussion in Lyanda, Mueda district



Visit of Chiudi water station Mueda sede



Water point (fountain) in Eduardo Mondlane transit site, Mueda sede



Living condition in Eduardo Mondlane transit site Mueda sede