# IMM REPORT JOVEMBER 2020

## **POPULATION MOBILITY MAPPING**

BEIRA CORRIDOR MOZAMBIQUE

COVID-19 PANDEMIC RESPONSE









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International Organization for Migration (IOM)

Mozambique Mission

E-mail: DTMMozambique@iom.int

Websites: https://displacement.iom.int/mozambique

www.dtm.iom.int/mozambique

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Cover photo: Population Mapping Exercise (PME) in Chimoio district of Manica province. IOM DTM Mozambique/2020

## **BACKGROUND**

The current outbreak of COVID-19 has resulted in a global pandemic, heightening the risk to vulnerable populations, internally displaced people and people on the move. On 22 March 2020, the Government of Mozambique officially declared the first positive COVID-19 case. In late March, South Africa declared a lockdown due to the spread of COVID-19, which prompted over 14,000 Mozambican migrants to return home from South Africa, through the Ressano Garcia border, within a span of a few days<sup>1</sup>.

Based on discussions with partners and internally, IOM in collaboration with the Government of Mozambique's Ministry of Health (República de Moçambique Ministério da Saúde) decided to target the Beira corridor for its first Population Movement Monitoring (PMM) and Flow Monitoring (FM) activities. The selection of the Beira corridor as the primary target for this exercise was based on an expected high flow of movements through these border points, high interest of Government and civil society partners, and a relatively easy access. The Beira corridor is a major hub on the migration and trade corridor linking landlocked countries in southern Africa to the Port of Beira, with its main entry point being Machipanda, the main the official border post between Mozambique and Zimbabwe (see map on page 5).

This report presents the findings and results of the PMM and FM activities conducted along the Beira corridor in the central region of Mozambique, which included a Participatory Mapping Exercise (PME) conducted on 13 October 2020, followed by site assessments conducted on 17 and 18 November 2020 and, Flow Monitoring activities, conducted from 19 to 21 November 2020.

The PMM and FM activities were conducted with the purpose of understanding the influence of COVID-19 on mobility patterns, by identifying and analyzing the status and preparedness of Points of Entry (PoEs) and other key mobility locations. Moreover, this report includes information on a total of 4,016 persons who were identified transiting through the flow monitoring points from 19 to 21 November 2020.

#### 1.1 Aim and Objectives

The aim of the Population Mobility Mapping in the Beira corridor was to complement the Government of Mozambique's National Preparedness and Response plan for COVID-19 by providing the Government, communities, and humanitarian partners with information on population mobility and cross-border movements. More broadly, it aimed to enhance prevention, detection, and response to the spread of infectious diseases through an improved understanding of prevailing human mobility patterns in Mozambique and the Beira corridor axis.

The specific objectives of this exercise were to:

- Identify the points of entry and congregation areas within the Beira corridor and at its borders with neighboring countries.
- Based on estimations on volume of flows and other criteria, provide a list of specific points of entry and congregation areas that are prioritized for public health interventions in times of public health emergency.
- Recommend immediate public health interventions for the identified prioritized congregation areas and points of entry.
- Assess the feasibility of implementing Flow Monitoring and recommend locations of Flow Monitoring
  Points to collect and provide information on cross-border mobility trends to support Government's
  evidence-based migration policy development, and to inform decision related to disease surveillance and
  interventions strengthening health system along mobility corridors.

<sup>&</sup>lt;sup>1</sup> For further details, please visit: https://www.iom.int/news/mozambican-workers-returning-south-africa-engaged-check-covid-19s-spread

#### **METHODOLOGY**

Population Mobility Mapping was conducted in three stages, listed in the following sub sections:

## 2.1 Participatory Mapping Exercise (PME)

The participatory mapping exercise workshop was held on 23 October 2020 and it involved collection of information from workshop participants through facilitated group discussions. The participants included representatives from government entities that were previously consulted during the national level engagements, local leadership who were knowledgeable about population mobility, public health, and the area of assessment in Beira corridor, which are: Ministry of the Interior (Policies and Migration, 11 participants), Ministry of Health (8 participants), Ministry of Transport and Communication (7 participants), and the Red Cross (1 participant).

The exercise began with a presentation by the Ministry of Health (Department of Public Health) on the current epidemiological situation in Mozambique, followed by an introduction to the Health, Borders and Mobility Management Framework (HBMM). According to the objectives of the exercise, key informants were then asked to identify and locate points of entry (official and unofficial), major mobility routes and population congregation points on the map, which are places where travellers could interact with other travellers and/or the local community (such as markets, bus stations, health facilities, etc.). Population mobility patterns and dynamics at these points were then characterized (main locations of departure and destination, modes of transport, etc.). Flow Monitoring Points (FMPs) were recommended from the identified prioritized points of entry and congregational points to implement FM activities.

#### 2.2 Sites/Points of entry Assessments

The Participatory Mapping Exercise (PME) was followed by an assessment of identified congregational sites and points of entry in the field, which were conducted between 17 to 18 November 2020 with the following objectives:

- Collect the Global Position System (GPS) coordinates of the sites identified during the exercise to develop the final map.
- Verify the information collected during the exercise with key informants and direct observations on sites (ground truthing)
- Collect additional information regarding accessibility for the implementation of Flow Monitoring activities.

#### 2.3 Flow Monitoring

Flow Monitoring (FM) exercise was conducted in the assessed and prioritised points within 19 to 21 November 2020 with the following objectives:

- Test the viability of the identified FMPs.
- Record inflows and outflows of travellers at these points.
- Ascertain the traffic of travellers at these points for permanent implementation of Flow Monitoring activities.

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**IOM MOZAMBIQUE PMM MAP** 

Data source: HDX, OSM, Google earth, IOM DTM

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This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

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## 2. SITE EVALUATION

Displacement Tracking Matrix (DTM) Teams conducted a site evaluation, including a COVID-19 assessment, of Points of Entry and other important points of congregation, such as health centers, markets or bus stations. In total, with this assessment, DTM collected information on 46 sites: 20 points of entry, 6markets, 7 health facilities, 7 bus stations, and 6 other important mobility locations. Most of the assessed sites are situated in Manica province (91% or 42 sites), while four sites are located in Sofala province.

In 65 per cent of the cases, the sites are accessible through paved roads, while the remaining 35 per cent are only accessible through paths. At the time of assessment, 10 per cent of the sites are inaccessible. As available means of transport to access the sites, key informants reported the following: on foot (78% of the sites), motorcycle (74%), bicycle (60%), car (58%) and bus (28%).



Figure 1: Site accessibility

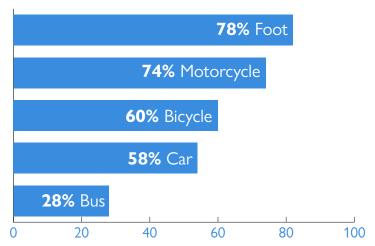


Figure 2: Available means of transport to access site



Photo 2: Interviewing key informant at Posto de Controle da Silva during site evaluation. Source: IOM DTM Mozambique/2020

As the main destination of the persons transiting through these sites, Mozambique has been the most mentioned by key informants (92% of the sites). Other destination countries that have been mentioned are: Zimbabwe (10% of the sites), Malawi (6%), South Africa (4%) and Tanzania (2%).

As country of departure, Mozambique remained the most mentioned (62% of the sites), followed by Zimbabwe (38%), South Africa (8%), Malawi (4%) and Tanzania (4%), but with considerably lower frequency.

In terms of available services at the site, 85 per cent of the sites reported the presence of latrines on site, while 77 per cent of the sites have a water source. It is noteworthy that 15 per cent of the sites did not have access to either a latrine or a water source.

Regarding COVID-19 preventive measures, according to key informants, 31 per cent of the sites currently have a COVID-19 screening system in place. In particular, 17 per cent reported temperature checks through noncontact thermometers and 15 per cent reported the use of health declaration forms. Moreover, 92 per cent of the sites reported the availability of a hand-washing station, while 56 per cent of the sites are implementing risk communication campaigns on COVID-19 risks and preventive measures.

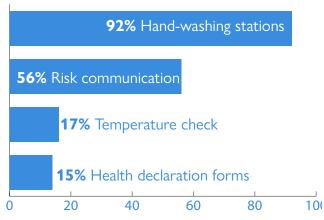


Figure 3: COVID-19 prevention measures in place

The nearest health facility is reachable as follows: on foot (38% of the sites), motorcycle (27%), car (23%) or other means of transport (13%).

Finally, key informants reported the presence of the following officers on site: law enforcement officers (in 69% of the sites), health workers (31%) and partner organizations (27%).

#### 3. POINTS OF ENTRY

DTM assessments identified 20 Points of Entry (PoEs) in Manica and Sofala provinces in the Central Region of Mozambique. The majority (62%) of people crossing the PoEs are travelling for business reasons and nine per cent for health reasons.

Among the assessed PoEs, 16 are informal land border crossing points (80% of the total), two formal land border crossing points (10%), one informal river/maritime and one blue border crossing point (10%).

Regarding authorities present on site, immigration officers were present in 59 per cent of the assessed PoEs, with other agencies and authorities, such as police, being on site in 41 per cent of the cases. Customs were present in 14 per cent of the PoEs while agriculture and animal health authorities were present in five per cent of the PoEs.

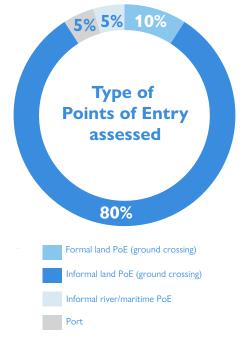


Figure 4: Type of Point of Entry assessed

In total, key informants reported the presence of 283 security/police officers, 66 immigration officers and 27 health personnel across the 22 assessed PoEs.

For what concerns the structures available at the PoE, a building is available in 64 per cent of the PoEs, while in the other PoEs temporary structures such as a hut (27% of the cases) or a tent (5%) are present. In 5 per cent of the PoEs, no structure is present on site.

Regarding communication and IT equipment, the following equipment is available in the assessed PoEs: telephone (available in 65% of the PoEs), laptop (14%), VHF radio (6%), printer (9%), and desktop computer (3%). It is noteworthy that, according to key informants, 56 per cent of the assessed PoEs reported the lack of any IT equipment.

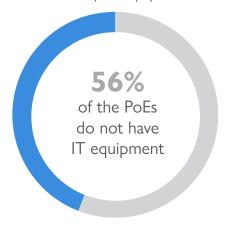


Figure 5: IT equipment availability at assessed Points of Entry

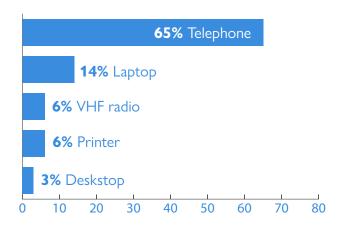


Figure 6: Type of IT equipment available at assessed Points of Entry

All PoEs reported having access to a water source. Interviewed key informants at the PoEs reported the following sources: creek (59% of the PoEs), hand pump (32%), tap (9%), lake (9%) and river (5%).

Finally, 23 per cent of the PoEs reported the lack of access to electricity, while 32 per cent rely on the public supply, 27 per cent have solar panels and 18 per cent use other electricity sources.

## 4. FLOW MONITORING

Through this assessment, DTM collected information on a total of 807 transiting through the Flow Monitoring Points (FMPs) from 18 to 21 November 2020.

The largest demographic group was represented by men (54% of the total), followed by women (30%). Children represented the remaining 16 per cent (specifically, 9% female and 7% male). In terms of vulnerable groups, the following were identified: lactating women (4% of the total), pregnant women (2%), children under five years old (3%), elderly (2%), unaccompanied children (<1%) and persons with disabilities (<1%).

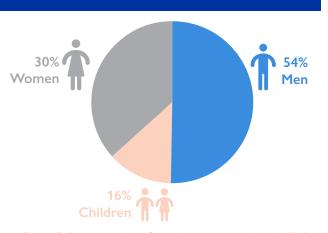


Figure 7: Demographics of travellers transiting through FMPs

The overwhelming majority of the travellers were Mozambican nationals (81% of the total). Other nationalities that were identified at the FMPs were: Zimbabwean (10%), Malawian (6%) and other nationalities (3%).

Most of the travellers were arriving from Mozambique (87% of the total), with little numbers of travellers arriving from Zimbabwe (7%), Malawi (<4%), Zambia (3%) and, Tanzania (<1%). As main destination countries, Mozambique was the most mentioned country (97% of the travellers), followed by Zimbabwe (2%), Malawi (1%), South Africa (<1%), Zambia (<1%) and Congo (<1%).

Regarding means of transport, bus was the preferred choice for the great majority of the travellers transiting through the FMPs (61% of the total). Other means of transport observed at FMPs were: trucks (21%), taxi or car (8%), foot (4%) motorbikes (4%) and train (2%)

Most of the people observed at FMPs were travelling for short-term local movements (40% of the total). Economic migration for more than six months (37%), tourism (11%) and seasonal migration (11%) were other reasons for movement mentioned by travellers.

The majority of the travellers had spent a short period in the country of origin: in particular, 18 per cent were there for less than one day and 35 per cent spent less than a week in the country of origin. Smaller percentages were reported for longer periods: specifically, 1 week - 3 months (11% of the total), 3 - 6 months (1%), 6 - 12 months (2%), 1 - 5 years (5%) and more than 5 years (27%).

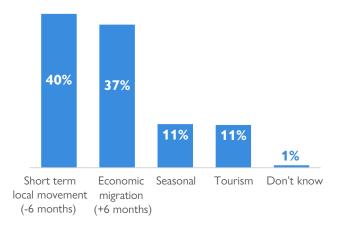


Figure 8: Type of movements



Photo 3: Flow Monitoring (FM) exercise at Paragem Central de Nhamatanda. Source: IOM DTM Mozambique/2020

## 4. CONCLUSION

The results of the Population Mobility Mapping (PMM) have provided a better understanding of the dynamics and characteristics of population mobility along the Beira corridor and between Mozambique and Zimbabwe, facilitated the prioritization of points of entry and points of congregation in and around Beira corridor and assisted in identification of high mobility areas for Flow Monitoring implementation. The following are the key conclusions and recommendations based on the results of the participatory mapping exercise:

#### 4.1 Prioritized points of congregation

The list of prioritized congregation areas constitutes most of the congregation areas which are connected to the priority points of entry. In total, 27 prioritised points were assessed in Barue (3 points) Cidade de Chimoio (2 points) Gondola (11 points), Nhamatanda (3 points) and Vanduzi (8 points). Infection Prevention and Control/Water, Sanitation and Hygiene (IPC/WASH) and Risk communication and community engagement (RCCE) measures are recommended at these points.

## **4.2 Points of Entry**

Based on the amount of mobile populations transiting through the point and strategic positioning, two PoEs (Machipanda and Espungabera official border posts) along the Beira corridor were prioritized for the implementation of surveillance activities and support for relevant referral systems and FM activities.

**Machipanda PoE:** The PoE is the main migration and trade corridor border post (Beira Corridor) linking Southern African landlocked countries to the Port of Beira, located in the province of Manica, bordering Zimbabwe.

Inflows of migrants from Zimbabwe, Malawi and Tanzania were observed during the pilot FM exercise carried out at this point between 18 and 21 November 2020. The results of the exercise indicate that the total daily number of individuals observed for the three days at the Machipanda PoE was six. The low flows reported at the border were due to the movement constraints imposed during the period of operation by the Zimbabwean government. Economic migration was the key form of flow reported, including truck drivers traveling to the port of Beira and individuals traveling for commercial activities.

**Espungabera PoE:** The PoE, also situated in Manica province and bordering Zimbabwe, is the second official border post along the Beira corridor. Pilot FM findings indicate that the average daily number of individuals observed at the PoE between 18 and 21 November 2020 was 11. The key departure and destination countries of individuals passing through the PoE were Zimbabwe and Mozambique. Seasonal migration and economic migration were the principal types of flows found.

The unofficial points of entry which were prioritized for additional public health measures due to the high volume of mobile populations transiting through those points and their connections to the communities include: 1°Batalhao, Antiga Migração, Chabunta, Chazuca, Chirera, Chiurairaue, Chiurauri, Chiwizo, Chizipa, Dibi, Mupeng,o Mute, Mutodod, Nhamacare, Posicao da Silva and Ruela Silva PoEs.

## 4.4 Localization of Flow Monitoring Points

Preliminary Flow monitoring activities were in conducted in the identified and prioritised points. In total, FM activities were conducted in 24 points in Barue, Chimoio, Manica, Mossurize, and Vanduzi districts of Manica province and 4 points in Beira and Nhamatanda districts of Sofala province. The total inflows were 108, outflows 28 and internal-flows 671 individuals. This exercise represents a pilot phase to understand mobility patterns and provide information on cross-border mobility trends to support Government's evidence-based migration policy development, and to inform decision related to disease surveillance and interventions strengthening health system along mobility corridors.

## **APPENDIX**

					Estimated				
	Province of	District of			flow/volume	Departure countries	Destination countries	Nearest health	Name of nearest health facility
Site name	evaluation	evaluation	Category	Site type	of people			facility (in meters)	
1°Batalhao	Manica	Mossurize	PoE	Informal land PoE	2	Zimbabwe	Moçambique	1000	Espunbera
Antiga migração	Manica	Manica	PoE	Informal land PoE	5	Zimbabwe	Moçambique	10	Posto de Saúde de Pinhalonga
Centro de saúde de Honde	Manica	Barue	Point of congregation	Health facility	250	Moçambique	Moçambique	0	Centro de Saúde Tipo 2 de Honde
Centro de Saúde de Inchope	Manica	Gondola	Point of congregation	Health facility	150	Moçambique	Moçambique	0	Centro de Saúde de Inchope
Centro de saúde de vanduzi	Manica	Vanduzi	Point of congregation	Health facility	0	Moçambique	Moçambique	0	Centro de Saúde de Vanduzi
Centro de Saude josina Machel	Manica	Gondola	Point of congregation	Health facility	150	Moçambique	Moçambique	0	Hospital Distrital de Gondola
Chabunta	Manica	Mossurize	PoE	Informal land PoE	1	Zimbabwe	Moçambique	10	Chabunta
Chazuca	Manica	Manica	PoE	Informal land PoE	5	Zimbabwe	Moçambique	7000	Posto de Saúde de Chazuca
Chirera	Manica	Mossurize	PoE	Informal land PoE	900	Moçambique	Moçambique	-	
Chirimeira-IAC	Manica	Vanduzi	Point of congregation	Health facility	0	Moçambique	Moçambique	0	Centro de Saúde de de Chirimeira -lac
Chiurairaue	Manica	Mossurize	PoE	Informal land PoE	300	Zimbabwe	Moçambique	1700	
Chiurauri	Manica	Mossurize	PoE	Informal land PoE	150	Moçambique	Moçambique, Zimbabwe	1700	Centro de Saude de Chiuraure
Chiwizo	Manica	Manica	PoE	Informal land PoE	7	Zimbabwe	Moçambique	2000	Centro de Saúde de Machipanda
Chizipa	Manica	Manica	PoE	Informal land PoE	8	Zimbabwe	Moçambique	3000	Centro de Saúde de Machipanda
Dibi	Manica	Mossurize	PoE	Informal land PoE	500	Moçambique	Zimbabwe	400	
Espengabera	Manica	Mossurize	PoE	Formal land PoE	2	Zimbabwe	Moçambique	1000	Espengabera
Hospital distrital de catandica	Manica	Barue	Point of congregation	Health facility	1000	Moçambique	Moçambique	0	Centro de Saúde de Catandica
Hospital Distrital de Gondola	Manica	Gondola	Point of congregation	Health facility	400	Moçambique	Moçambique	0	Centro de Saude Josina Machel
Machipanda	Manica	Manica	PoE	Formal land PoE	300	Zimbabwe	Moçambique	5	Centro de Saúde de Machipanda
Mercado 38	Manica	Chimoio	Point of congregation	Market	3000	Moçambique	Moçambique, Zimbabwe		
Mercado central	Manica	Chimoio	Point of congregation	Market	600	Moçambique	Moçambique, Zimbabwe	200	Centro de Saúde Eduardo Mondlane
Mercado central de Vanduzi	Manica	Vanduzi	Point of congregation	Market	0	Moçambique	Moçambique	50	Centro de Saúde de Vanduzi
Mercado Maçaniqueira	Manica	Gondola	Point of congregation	Market	1050	Moçambique	Moçambique	1	Centro de Saúde de Inchope
Mercaro 25 de setembro	Manica	Gondola	Point of congregation	Market	300	Moçambique	Moçambique	100	Hospital Distrital de Gondola
Mupengo	Manica	Mossurize	PoE	Informal land PoE	1	Zimbabwe	Moçambique	1000	Mupengo
Mute	Manica	Mossurize	PoE	Informal land PoE	2000	South Africa, Zimbabwe	Moçambique	160	Centro de Saude de Mute
Mutododo	Manica	Manica	PoE	Informal land PoE	5	Zimbabwe	Moçambique	10	Posto de Saúde de Pinhalonga
Na Balança de vanduzi	Manica	Vanduzi	Point of congregation	Check-point	0	Moçambique	Moçambique	100	Centro de Saúde de Vanduzi
Nhamacare	Manica	Manica	PoE	Informal land PoE	20	Zimbabwe	Moçambique	2000	Centro de Saúde de Machipanda

					Estimated				
	Province of	District of			flow/volume	Departure countries	Destination countries	Nearest health	Name of nearest health facility
Site name	evaluation	evaluation	Category	Site type	of people			facility (in meters)	
Parragem para Muchungue	Manica	Gondola	Point of congregation	Bus station	300	Moçambique	Moçambique	500	Centro de Saúde de Inchope
Parragem via Gorongosa	Manica	Gondola	Point of congregation	Bus station	5000	Moçambique	Moçambique	1000	Centro de Saúde de Inchope
Portagem de IAC	Manica	Vanduzi	Point of congregation	Toll-gate	0	Moçambique	Malawi	200	Clínica Dr. Brantes
Portagem de Pungue sul	Manica	Vanduzi	Point of congregation	Toll-gate	0	Moçambique, Malawi	Moçambique, Malawi	100	Unidade Sanitária de Pungue Sul
Posicao da Silva	Manica	Mossurize	PoE	Informal land PoE	0	Zimbabwe	Moçambique	10	Mupengo
							Malawi, Moçambique,		
Posto de controlo Policial de Inchope	Manica	Gondola	Point of congregation	Check-point	3000	Moçambique	Tanzânia, South Africa,	2000	Centro de Saúde de Inchope
							Zimbabwe		
						Malawi, Moçambique,			
						Tanzânia, South Africa,			
Posto policial de cruzamento de Tete	Manica	Vanduzi	Point of congregation	Bus station	0	Zimbabwe	Moçambique	20	Unidade Sanitária
Ruela	Manica	Barue	PoE	Informal land PoE	0	Moçambique	Moçambique	20	Centro de Saúde de Panze
Selva-sede	Manica	Vanduzi	Point of congregation	Bus station	0	Zimbabwe República Unida	Masambiaus	700	Centro de Saúde de Chigodole
Silva		Mossurize	PoE	Informal land PoE		Zimbabwe Republica Offida Zimbabwe	, ,		Ŭ
Silva	Manica	Mossurize	POE	Informal land PoE	0	Zimbabwe	Moçambique	1000	Mupengo
Som Petroleum	Manica	Gondola	Point of congregation	Other	200	Moçambique, South Africa	Moçambique, South Africa	2000	Centro de Saúde de Inchope
Terminal do mercado de macombe	Manica	Barue	Point of congregation	Bus station	5000	Moçambique	Moçambique	500	Centro de Saúde de Catandica
Terminal rodoviario vila sede de gondola	Manica	Gondola	Point of congregation	Bus station	100	Moçambique	Moçambique	100	Hospital Distrital de Gondola
Controle de fiscalização de Nhamatanda	Sofala	Nhamatanda	Point of congregation	Other	1000	Moçambique	Moçambique	5000	Hospital Rural de Nhamatanda
Mercado- Nzero	Sofala	Nhamatanda	Point of congregation	Market	200	Moçambique	Moçambique	4000	Hospital Rural de Nhamatanda
Paragem Central de Nhamatanda	Sofala	Nhamatanda	Point of congregation	Bus station	800	Moçambique	Moçambique	1500	Hospital Rural de Nhamatanda
Port of Beira	Sofala	Beira	PoE	Port		Moçambique, South Africa	Moçambique, South Africa	1000	Clinica Sorridente

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