



The port city of Beira, the capital of Sofala Province, is located about 1,190 kilometres north of Maputo in the centre of the coastline along the Mozambique Channel. Beira covers an area of 633 square kilometres, has an average altitude of 14 metres above sea level, and is located at the coordinates 19° 50' south and 34° 51' east. The city is bordered by the Dondo district in the north and west, the Indian Ocean in the east, and the Buzi district in the south. The terrain is swampy and close to the estuary of Pungwe River, with stretches of sand dunes along the Indian Ocean coast. The natural flora is characterised by lowlands and coasts with mangroves. The city is divided in five administrative posts: Urbano nº 1, Urbano nº 2, Urbano nº 3, Urbano nº 4, and Urbano nº 5. The administrative posts are divided into 26 boroughs: Macuti, Palmeiras, Ponta Gea, Chaimite, Pioneiros, Esturro, Matabuane, Macurungo, Munhava-Central, Mananga, Vaz, Maraza, Chota, Alto da Manga, Nhaconjua, Chingussura, Vila Massane, Inhamizua, Matadouro, Mungassa, Ndunda, Manga Mascarenha, Muave, Nhangau, Nhangoma and Tchonja.*

The Council of Municipal Management and Equipment is responsible for the different municipal solid waste management services provided. An under-equipped fleet of vehicles collects garbage from 6 m³ containers along the city streets and waste deposition points on the ground.

Source: * Wikipedia, Beira, <[https://pt.wikipedia.org/wiki/Beira_\(Mo%C3%A7ambique\)#Patrim%C3%B3nio_da_cidade_da_Beira](https://pt.wikipedia.org/wiki/Beira_(Mo%C3%A7ambique)#Patrim%C3%B3nio_da_cidade_da_Beira)>

Information

Population	656,871 (2017 census)
Population growth (annual %)*	2.1 (2010-2015)
Area (km ²)**	633
Climate**	Tropical savanna wet rainy climate
Main industries**	Food, beverages, cement, chemicals (soap), oil products, etc.
Currency***	USD 1: MZN 62.09 (Mozambican metical) (February 2019)
Other**	The population consists of mostly Christians, with significant numbers of Muslims and Hindus, as well.

Sources: * United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.

** Wikipedia, Beira, <[https://pt.wikipedia.org/wiki/Beira_\(Mo%C3%A7ambique\)#Patrim%C3%B3nio_da_cidade_da_Beira](https://pt.wikipedia.org/wiki/Beira_(Mo%C3%A7ambique)#Patrim%C3%B3nio_da_cidade_da_Beira)>

*** Oanda.com

Current SWM Situation

Item	Outline
Institutional System	
Legal system	<ul style="list-style-type: none"> ● There are two major laws and regulations related to municipal solid waste management in the city: <ul style="list-style-type: none"> » Regulation on Municipal Solid Waste Management (Decree 94/2014, 31st of December). » Municipal Stance on Solid Waste Management (approved on the 15th of December, 2016).
Policy/Plan	<ul style="list-style-type: none"> ● A comprehensive Solid Waste Management Plan is being drawn up.
Implementation system	<ul style="list-style-type: none"> ● The Direction is in charge of solid waste management in Beira city and the Council of Municipal Management and Equipment is responsible for hygiene and sanitary services (including: waste collection; street sweeping, weeding and dogs; garbage management) and monitoring and inspection planning services for the city. The council engages 29 decision makers (councilmen, directors, and chiefs), 383 operational employees (drivers, sweepers, waste pickers, foremen, etc.) and 27 administrative employees (secretaries and servants). ● The Beira Municipal Council collects biomedical waste.
Technical System	
Waste generation amount & characteristics	<ul style="list-style-type: none"> ● Quantity of waste generated: 554.65 tons/day (draft estimates from the Comprehensive Solid Waste Management Plan). ● Waste generation in residential areas (2016 study): <ul style="list-style-type: none"> » Concrete city with buildings: 0.61 kg/person/day. » Concrete city with townhouses: 0.94 kg/person/day. » Suburban areas with access: 0.57 kg/person/day. » Suburban areas without access: 0.57 kg/person/day. » Rural areas: 0.44 kg/person/day. ● Waste composition (2016 study): <ul style="list-style-type: none"> » Urban area: inert 38.17%, organic 22.77%, green/wood 25%, textile products 4.91%, plastic 6.44%, paper/cardboard 3.27%, glass 2.49%, metal 1.10%, debris 2.43%, composite materials 0.56%, hazardous 0.25%. » Suburban area: inert 28.05%, organic 33.31%, green/wood 19.9%, textile products 4.74%, plastic 5.39%, paper/cardboard 3.11%, glass 1.11%, metal 1.07%, debris 1.96%, composite materials 0.93%, hazardous 0.44%.
Storage and discharge/ Collection and transportation/ Road sweeping	<ul style="list-style-type: none"> ● Street sweepers clean the streets of the urban areas with buildings and townhouses (the sweepers are divided by group and borough in accordance with implementation targets). ● Municipal waste is collected in three shifts every day. ● Number of vehicles: six container trucks, five compactors, one tractor, and two dumpers.

Item	Outline
Intermediate treatment/ Recycling	<ul style="list-style-type: none"> ● There is no treatment. ● There is a small number of waste pickers (exact number unknown). ● There is no transfer station in the city.
Final disposal	<ul style="list-style-type: none"> ● There is one open dump covering an area of about 7 hectares. It is located in Munhava borough, close to the sewage treatment plant, about 7 km from the city centre, and is owned by the Beira Municipal Council. It is operated 24 hours per day and receives 225.12 tons of waste per day (estimate based on daily loading of the vehicles).
Financial system	<ul style="list-style-type: none"> ● Financial resources are managed under the direction of the Council of Finances. ● The chief expenditures are: <ul style="list-style-type: none"> » Staff salary and benefits: MZN 25,339,586.35 » Fuels and lubricants: MZN 2,595,730.57 » Vehicle maintenance: MZN 3,698,730.02 » Equipment procurement: MZN 9,439,889.16 ● Revenues: <ul style="list-style-type: none"> » Garbage fees: MZN 23,840,582 » Special collection: MZN 918,178.29 » Disposal at the dump: MZN 639,393.65 ● The Beira Municipal Council charges a fee of MZN 25 for waste services through EDM (Mozambique Electricity). EDM takes a commission of 25% from this fee.
Environmental and social considerations	<ul style="list-style-type: none"> ● The Beira Municipal Council supports research and promotes the recycling of solid waste through a multipurpose centre specialised in renewable energies (ex. coal production from waste, biogas from animal excrement, etc.). ● Information and awareness campaigns for the municipality.
Donor support	<ul style="list-style-type: none"> ● CAM: Provides technical and institutional assistance to the Beira Municipal Council.
Areas for improvement (in order of priority)	<ul style="list-style-type: none"> ● Legal issues: Definitions for different regulations specific to the sector. ● Technical issues: Staff development and training. ● Financial issues: Sustainability of the sector.

Waste Amount at Each Stage of Waste Flow*

Waste flow	Amount** (ton/day)	Remarks
① Waste generation	554.65	Waste generated at houses, offices, shops, restaurants, etc.
② Discharge to collection	N/A	Waste discharged for collection services.
③ Self disposal	N/A	Disposal at generation sources, such as burning and burying.
④ Recycling at source	N/A	Reuse of materials, composting, sold to recyclers.
⑤ Collection and transport	225.12	Waste amount collected and transported.
⑥ Clandestine dumping	N/A	Waste illegally disposed of in unknown location.
⑦ Treatment	N/A	Material recycling, composting, incineration, etc.
⑧ Recycling/Reduction	N/A	Recycled and/or reduced waste amount by material recycling, composting, incineration, etc.
⑨ Residue	N/A	Residue from treatment facilities.
⑩ Final disposal site	225.12	Waste amount brought into disposal sites.
⑪ Recycling	N/A	Recycled at disposal sites.
⑫ Final disposal	N/A	Waste amount finally disposed of at disposal sites.

* Based on the waste flow chart on page.

** Figures include estimated value.