

Libreville is the political and administrative capital of Gabon, and home to about half of the country's inhabitants. Its population growth is rapid and its development rather disordered. Urban infrastructure is not keeping pace with new construction developments. Located on the estuary of Gabon on the northwest coast of the country, Libreville is the capital of the Estuaire Province. Libreville is surrounded by a huge forest and is regularly beset by large floods, especially during the rainy season.

The General Directorate of the Environment of the City Council of Libreville is in charge of solid waste management in the city. The private sector is involved in the provision of waste services. 600 tons of waste are collected every day, and disposed of in an uncontrolled disposal site.

Information

Population*	747,259 (2015)
Population growth (annual %)*	2.9 (2010-2015)
Area (km ²)**	189
Climate**	Libreville has a tropical savanna climate with dry winter (Aw according to the Köppen classification). The average annual temperature is 26.3°C and the average rainfall is 1,970.6 mm per year. July is the driest month with 14 mm of precipitation and October the wettest month with 307 mm of precipitation.
Main industries**	Forestry, manganese
Currency***	USD 1: XAF 577.81 (Central African CFA franc) (February 2019)

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

** Wikipedia, Libreville, accessed 12 April 2019, <<https://fr.wikipedia.org/wiki/Libreville>>

*** Oanda.com

Current SWM Situation

Item	Outline
Institutional System	
Legal system	<ul style="list-style-type: none"> ● Laws and regulations related to SWM are the following: <ul style="list-style-type: none"> » Environmental Code in the Gabonese Republic. » Decree No 001/2000 of 1st February 2000 for the sanitary regulation of hygiene and public health for the Municipality of Libreville.
Policy/Plan	<ul style="list-style-type: none"> ● There is no specific SWM policy or plan for the city.
Implementation system	<ul style="list-style-type: none"> ● General Directorate of the Environment of the City Council of Libreville: in charge of solid waste management in the city (road sweeping, monitoring of the collection, and civic and environmental education). ● General Directorate of the Environment of the Ministry of the Environment. ● The private sector is involved in the provision of waste services, including waste collection, sweeping, and transport of the waste to the disposal site.
Technical System	
Waste generation amount & characteristics	<ul style="list-style-type: none"> ● Waste generation amount: Data not provided. ● Waste generation rate in the residential area: Data not provided. ● Waste collected amount: 600 tons/day (data obtained by the weighbridge at the disposal site, source: Clean Africa). ● Waste composition: Data not provided.
Storage and discharge/ Collection and transportation/ Road sweeping	<ul style="list-style-type: none"> ● Road sweeping services are provided by the City in the city centre, on the main roads and in public spaces. Collection services are provided by the State through a private provider. ● Waste is collected twice a day: day collection and night collection. ● Door-to-door collection is conducted once a week. ● Waste collection coverage: Data not provided. ● Selective collection is carried out for municipal market waste, commercial and institutional waste, household waste as well as for green waste such as grass and from tree pruning. ● Number of collection vehicles: Data not provided. ● Waste sorting at source: none.
Intermediate treatment/ Recycling	<ul style="list-style-type: none"> ● None.

Item	Outline
Final disposal	<ul style="list-style-type: none"> ● There is an uncontrolled landfill in the city. ● Landfill of Mindoubé: <ul style="list-style-type: none"> » Owner: Libreville City Council. » Area: about 6 hectares. » Hours of operation: 24 hours a day. » Quantity of waste disposed of: 600 tons/day. » Data sources: weighbridge, Clean Africa. » Facilities: weighbridge. » Operation plan: uncontrolled. » Operations: spreading of waste without soil covering.
Financial system	<ul style="list-style-type: none"> ● Data not provided.
Environmental and social considerations	<ul style="list-style-type: none"> ● In development.
Donor support	<ul style="list-style-type: none"> ● Ongoing.
Areas for improvement (in order of priority)	<ul style="list-style-type: none"> ● Legal issues: approval of the Extended Responsibility regulation. ● Technical issues: capacity building. ● Financial issues: financial resources for the acquisition of various waste treatment equipment and better functionality of the institution.

Waste Amount at Each Stage of Waste Flow*

Waste flow	Amount ** (ton/day)	Remarks
① Waste generation	N/A	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	N/A	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	600	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.