

Botswana

Botswana is in southern Africa, positioned between South Africa, Namibia, Zambia and Zimbabwe. It has an area of 581,730 square kilometres and a population of about 2.29 million. Gaborone is its capital and largest city. About 67% of the population reside in urban areas. The population is concentrated in the east with a focus in and around the capital Gaborone, and the far central eastern city of Francistown.*

SWM is the responsibility of the Department of Waste Management and Pollution Control, under the Ministry of Environment, Natural Resource Conservation and Tourism. The Ministry is responsible for formulating policies and legislation, and for monitoring the waste sector to prevent and control pollution. Botswana has enacted waste management legislation and has developed waste management policies and strategies. There is an established system for collection of SWM data, but the system covers only a few cities. Currently, there are fourteen sanitary landfills in the country. Although Botswana has made significant progress in SWM, SWM legislation, the institutional set-up, and waste recycling system all need to be reviewed.

Sources: * Wikipedia, Botswana, accessed 2nd August 2018, <<https://en.wikipedia.org/wiki/Botswana>> and World Bank, Botswana, accessed 29 March 2019, <<http://databank.worldbank.org/data/reports.aspx?source=2&country=BWA>>

Information

Population*	2.29 million (2017)
Population growth (annual %)*	1.8 (2017)
Area (km ²)*	581,730
GDP (current USD)*	17.4 billion (2017)
GDP growth (annual %)*	2.4 (2017)
GNI per capita, Atlas method (current USD)*	6,730 (2017)
Main industries**	Mining, tourism, agriculture
Currency***	USD 1 : BWP 10.65 (Botswana pula) (August 2018)

Sources: * World Bank, Botswana, accessed 29 March 2019, <<http://databank.worldbank.org/data/reports.aspx?source=2&country=BWA>>

** Wikipedia, Botswana, accessed 2nd August 2018, <<https://en.wikipedia.org/wiki/Botswana>>

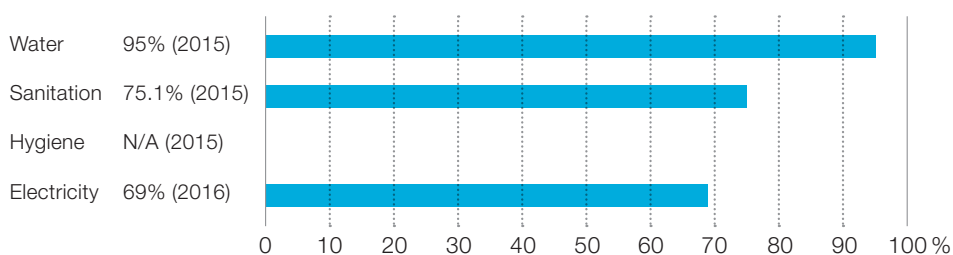
*** Cuex.com

Current SWM Situation

Item	Outline
Legal system	<ul style="list-style-type: none"> ● Waste Management Act 1998 ● Statutory Instrument for the Plastic Ban 2018 ● Energy Regulatory Policy ● Environmental Impact Assessment Act 2011 ● Public Health Act 2013
Policy/Plan	<ul style="list-style-type: none"> ● Waste Management Policy of Botswana 1998 ● Waste Management Strategy of Botswana 1998 ● Generic Waste Management Plans prepared for the local authorities in 2017
Implementation system	<ul style="list-style-type: none"> ● The Ministry of Environment, Natural Resource Conservation and Tourism is responsible for solid waste management. The Ministry is responsible for the following: <ul style="list-style-type: none"> » Regulating and monitoring the waste sector to prevent and control pollution of the environment by inappropriate waste management practices. » Formulating policies and legislation. » Promoting the economic value of waste. » The department is responsible for all types of waste including radioactive waste, clinical waste, wastewater, and chemical waste. ● Other institutions involved in waste management include: <ul style="list-style-type: none"> » The National Health Sciences: offers courses on environmental health. » University of Botswana: offers courses on toxicology, environmental impact assessment, and microbiology. » JICA Office: offers training courses on solid waste management.

Item	Outline
	<ul style="list-style-type: none"> ● Number of staff in the SWM department: <ul style="list-style-type: none"> » Total number of staff: 99 » Number of staff that took SWM and/or related course at university: 75 » Number of staff that have worked in the SWM sector for over five years: 25 ● Sanitary landfill: there are 14 sanitary landfills. ● System for collection of SWM data: there is a system for collecting SWM data, but the system only covers a few cities, not the whole country.
Financial system	<ul style="list-style-type: none"> ● The national budget for SWM is USD 11,200,000 per year. ● There is an annual recurring budget allocation from the Government. ● There are no SWM-related subsidies available to local governments. ● There is no tax related to SWM.
Donor support	<ul style="list-style-type: none"> ● Swedish Trade Council: Air Quality Strategy Framework Project. ● Japanese sponsorship through JICA Botswana.
Areas for improvement	<ul style="list-style-type: none"> ● Review of the Waste Management Act. ● Establishment of a fully fleshed department under the Ministry of Local Government and Rural Development to deal with solid waste management. ● Establishment and development of waste recycling centres to reclaim recyclable waste, such as waste transfer stations and sorting centres. ● Introduction of technologies such as combustible waste incineration and biomethane production technologies. ● Promotion of the economic value of waste by educating and empowering the communities on waste recycling and reuse initiatives. Introduction of incentives for promoting waste management.

Status of Access to Basic Services* (in urban area)



*The definition of each basic service is on page 1 of ANNEX.

Estimated Waste Amount

The future amount of waste generation is estimated based on the projection of urban population at three waste generation rates, i.e. 0.5, 0.75, and 1.0 kg/person/day.

		unit: thousand persons			
Population	Year	2015	2020	2025	2030
	Total		2,209	2,416	2,614
Urban		1,484	1,712	1,937	2,151

		unit: thousand ton/day			
Waste Amount	Generation rate	2015	2020	2025	2030
	0.50 kg/pers/day	0.7	0.9	1.0	1.1
	0.75 kg/pers/day	1.1	1.3	1.5	1.6
	1.00 kg/pers/day	1.5	1.7	1.9	2.2

$$\text{Waste Amount} = (\text{generation rate}) \times (\text{urban population})$$

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

