Zambia

Lusaka

Lusaka is the capital of Zambia, and the largest city. Due to its administrative role, it is the economic, cultural and transportation centre of the nation. Lusaka City Council (LCC) undertakes SWM in the city. LCC formulates city by-laws and carries out the following services directly in some parts of the city: sweeping, waste collection, and transportation of waste to the final disposal site. Private operators and community-based enterprises (CBE) are also involved in waste collection and disposal. Private operators collect waste from planned settlements and dispose the waste at a landfill under franchise agreements with LCC. CBEs collect waste from unplanned settlements under a Memorandum of Understanding (MoU) with LCC. For places away from the landfill, the CBEs collect the solid waste from households and dispose of the waste in bins placed at strategic locations within the settlements. LCC is responsible for collecting the waste from the bins and transporting it to the final disposal site. For the areas close to the landfill, tractors are used to collect solid waste from the households and it is disposed of directly at the landfill. The LCC is now encouraging CBEs to transport collected solid waste directly to the landfill to avoid accumulation.

Information

Population*	2.19 million (2015)
Population growth (annual %)*	4.9 (2010-2015)
Area (km^2)**	360
Climate***	Humid subtropical climate
Main industries***	Administrative, economic and transportation centre of Zambia.
Currency****	USD 1: ZMW 13.09 (Zambian kwacha) (September 2019)

Sources: * United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.
** Lusaka City Council, accessed 20 March 2019, <https://www.lcc.gov.zm/about-lusaka/>
*** Wikipedia, Lusaka, accessed 20 August 2018, <https://en.wikipedia.org/wiki/Lusaka>
**** Oanda.com

Current SWM Situation

Item	Outline
Institutional System	
Legal system	● Lusaka City Council Municipal Solid Waste Management, 2004: the municipal by-law guiding solid waste management in the city. ● The Local Government (Solid Waste Management) Regulation, 2011: national regulation on how waste is to be managed in municipalities.
Policy/Plan	● Lusaka City Solid Waste Strategy. This strategy expired and is under revision.
Implementation system	● LCC formulates city by-laws and provides waste collection and disposal services in some parts of the city. ● Private operators provide waste collection and disposal services in planned settlements under franchise agreements with LCC. ● Community-based enterprises provide waste collection services in unplanned settlements under franchise agreements with LCC. ● Community members pick recyclable waste from the streets and the dumping site. ● Other institutions involved in SWM include: » The Ministry of Local Government: responsible for developing policy at the national level. » Ministry of Water, Sanitation and Environmental Protection: responsible for regulation of hazardous waste. » Ministry of Health: responsible for the control of medical solid waste management.
Technical System	
Waste generation amount & characteristics	● The city generates about 1,200 tons/day at the rate of 0.5 kg/person/day. ● The composition of the waste is as follows: » Organic 50%, paper 5%, plastic 5%, glass 2%, metal 2%, and other 37%. (Source: World Bank, What a Waste: A Global Review of Solid Waste Management, 2012, accessed 20 August 2018, <https://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/What_a_Waste2012_Final.pdf>)
Storage and discharge/ Collection and transportation/ Road sweeping	● About 480 tons are collected per day. ● About 40% of the residents have access to waste collection service. ● The council uses the following vehicles for the services: » 6 compactor trucks with a capacity of 10 m^3. » 2 roll-on-trucks with a capacity of 15 m^3. » 6 skip trucks with a capacity of 5 m^3. » 12 tipper trucks with a capacity of 15 m^3.
Intermediate treatment/ Recycling	● There is no intermediate treatment/recycling. ● Recycling is slowly growing as there are recycling companies operating in the city.

Item	Outline
Final disposal	● There is one landfill located ten kilometres from the city centre. ● The disposal site covers an area of 24 hectares. ● The disposal site is the first engineered landfill in the country, and its design includes following features: a bottom liner, a leachate collection pipe, enclosed bund/embankment, leachate treatment facility, a weighing bridge, a gate and a fence, drainage to prevent rainwater from getting to the waste disposal area. ● The waste is compacted but not covered with soil.

Financial system	● Households are charged ZMW 60 bin/month. ● Commercial entities and institutions are charged ZMW 120 bin/month.
Environmental and social considerations	● About 1,000 people are involved in picking recyclable waste materials from the dump site and from the streets. ● Communities are informed about collection days and time through public consultation meetings, flyers and brochures.
Donor support	● The Millennium Challenge Corporation is assisting LCC in updating the solid waste management plan and establishing an independent solid waste management utility.
Areas for improvement (in order of priority)	● Final disposal of waste needs to be improved. ● Institutional arrangement: need to create a more independent solid waste unit. ● Financial matters: need to have an effective system of collecting fees.

Waste Amount at Each Stage of Waste Flow*

Waste flow	Amount** (ton/day)	Remarks
❶ Waste generation	1,200	Waste generated at houses, offices, shops, restaurants, etc.
❷ Discharge to collection	N/A	Waste discharged for collection services.
❸ Self disposal	N/A	Disposal at generation sources, such as burning and burying.
❹ Recycling at source	N/A	Reuse of materials, composting, sold to recyclers.
❺ Collection and transport	480	Waste amount collected and transported.
❻ Clandestine dumping	N/A	Waste illegally disposed of in unknown location.
❼ Treatment	N/A	Material recycling, composting, incineration, etc.
❽ Recycling/Reduction	N/A	Recycled and/or reduced waste amount by material recycling, composting, incineration, etc.
❾ Residue	N/A	Residue from treatment facilities.
❿ Final disposal site	480	Waste amount brought into disposal sites.
⓫ Recycling	24	Recycled at disposal sites.
⓬ Final disposal	N/A	Waste amount finally disposed of at disposal sites.

* Based on the waste flow chart on page.
** Figures include estimated value.

Location of Waste Management Facility and Related Photographs: