

WASTE MANAGEMENT POLICY ASKS

INTRODUCTION

Lebanon is paying astronomical costs in terms of environmental damage and public health due to its absence of a comprehensive and practical solid waste management plan. In 2020, the Borj Hammoud/Jdeideh landfill reached capacity and ceased receiving waste. As a result, garbage piled up on the streets of Beirut and the neighboring regions, reminiscent of the trash crisis of 2015.

With 5.6 million residents, Lebanon generates 2,040,000 tons of municipal solid waste (MSW) annually, out of which ~52.5% is composed of organic materials, 27% of paper/cardboard and plastics and 9% of glass and metal, with proportions varying slightly between urban and rural locations, as well as between summer and winter.

The generation of MSW per person is thought to vary from around 0.8 kg/p/d in rural regions to approximately 1.2 kg/p/d in urban areas, with a weighted national average estimated at approximately 1.05 kg/p/d. The country as a whole is expected to witness an annual increase in solid waste production of 1.65% due to the presence of 2m refugees living in the country.

Public or private haulers collect almost all the MSW generated in Lebanon. Methods used to manage the waste vary depending on the location: 8% is recycled, 15% is composted, 51% is landfilled, and 26% is disposed of in open dumps.

Relying solely on landfills without a complete solid waste management strategy is quite expensive. According to the Garbage Management Coalition, each ton of solid garbage managed in Lebanon costs \$154.5 USD. In contrast, the amounts spent by Syria, Jordan, and Algeria are \$22.8, \$21.55, and \$7.22 respectively. While Jordan and Tunisia spend between \$48 and \$54 million annually on solid waste management, Lebanon spends over \$420 million annually in comparison.

Implementing better waste management techniques like composting and recycling could result in annual savings of almost \$100 million. Currently, landfills and open dumps receive around 80% of solid waste while experts estimate that only 10–12% cannot be recycled or composted.

In 2017, Human Rights Watch looked at the health issues brought on by an increase in open solid waste burning because of inadequate waste management practices. People who lived in the locations where garbage was burnt in open dump sites reported health issues such as asthma, chronic obstructive pulmonary disease, coughing, sore throats, and skin disorders. Open garbage burning produces air pollution that can expose humans to carcinogenic substances and has been related to heart disease and emphysema.

POLICY ASKS



CREATE A COMPREHENSIVE WASTE MANAGEMENT STRATEGY:

- Develop a realistic action plan and the needed decrees for the implementation of the Integrated Solid Waste Management (ISWM) law 18/2018 and follow up on Council of Ministers decision nb. 3 approved on 27 August 2019 that includes the ISWM strategy.
- Enforce the implementation of Ministry of Environment 7/1 circular on sorting at the source.
- Give priority to waste reduction, reuse, and recycling to reduce the amount of solid waste produced.
- Enact a law that fines open dumping and littering in public spaces and nature.



INVEST IN TECHNOLOGY AND INFRASTRUCTURE:

- Expand and modernize the systems for collecting and transporting solid waste.
- Invest in cutting-edge waste treatment facilities, such as waste-to-energy, composting and recycling operations.



PROMOTE THE SEPARATION AND RECYCLING OF WASTE:

- Implement a mandatory waste separation system at the source to promote recycling.
- Inform the public on the value of recycling and offer rewards for initiatives that promote it.
- Enact a law to fine households and businesses that do not separate solid waste.



COLLABORATE WITH STAKEHOLDERS:

- Work with local municipalities, NGOs, and private sector partners to improve waste management practices.
- Foster collaboration with neighboring countries for regional waste management solutions.



TRACK AND REPORT DEVELOPMENTS:

- Provide a framework at the Ministry of Interior for routinely tracking and reporting on municipal waste management activities and their results.
- Use data collected by the municipalities to upgrade and improve solid waste treatment practices.



EXTENDED-TERM VIABILITY:

- Advocate for the circular economy's tenets in developing a waste management system that is independent and sustainable.
- Encourage the circular economy by availing funds and tax incentives for the development of innovative waste management techniques and technologies.

These policy suggestions ought to assist in addressing Lebanon's solid waste management issues and advancing the development of a more effective and sustainable system