



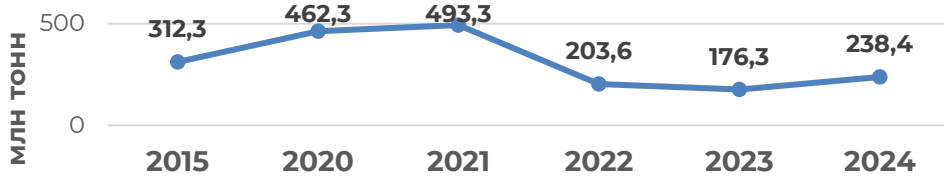
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Municipal Waste Management in Ukraine

Current situation, legal framework, and audit approach

The Scale of the Challenge – Key Facts

✓ **Total municipal waste generated** in Ukraine:



Data: Statistical Yearbook of Ukraine, 2024

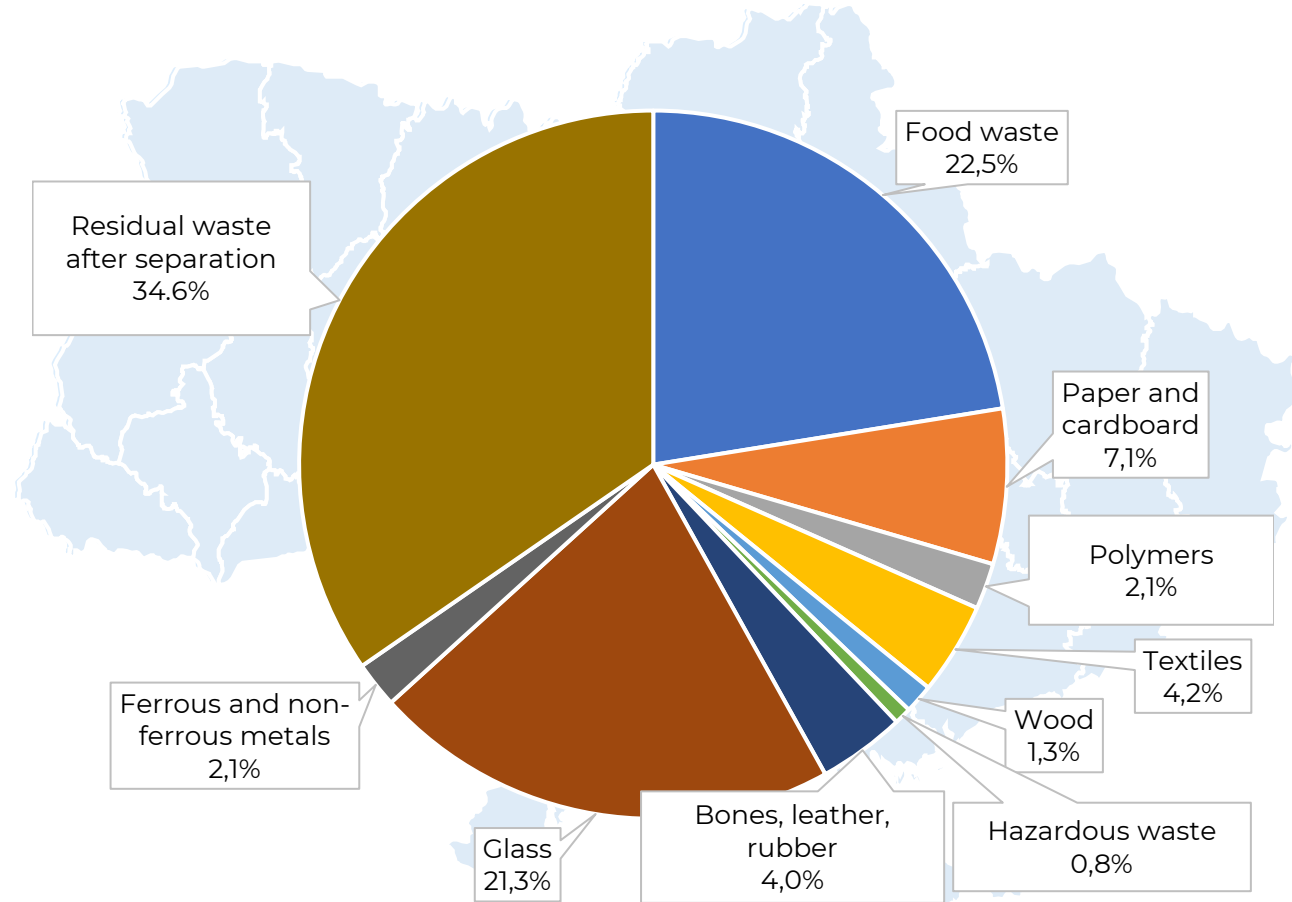
✓ **Total household waste generated:**

250-300 kg per capita per year

≈ 0,7-0,8 kg per day

“Source: National Waste Management Strategy of Ukraine up to 2030”

Morphological composition of household waste in Ukraine

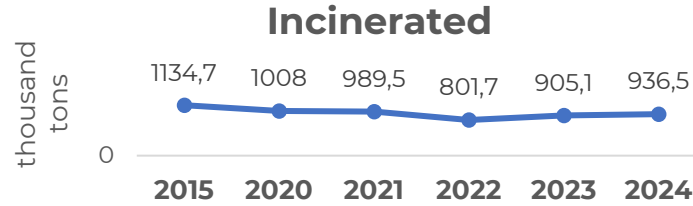
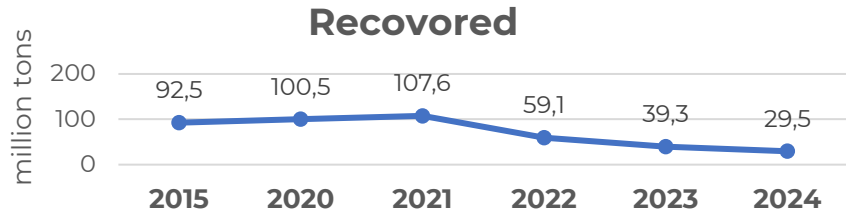


Source: National Waste Management Plan for 2033 (Cabinet of Ministers of Ukraine Order No. 1353-r of 27 December 2024)



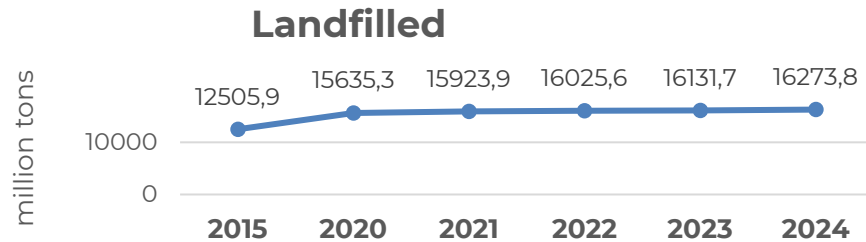
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✓ Waste treatment in Ukraine:

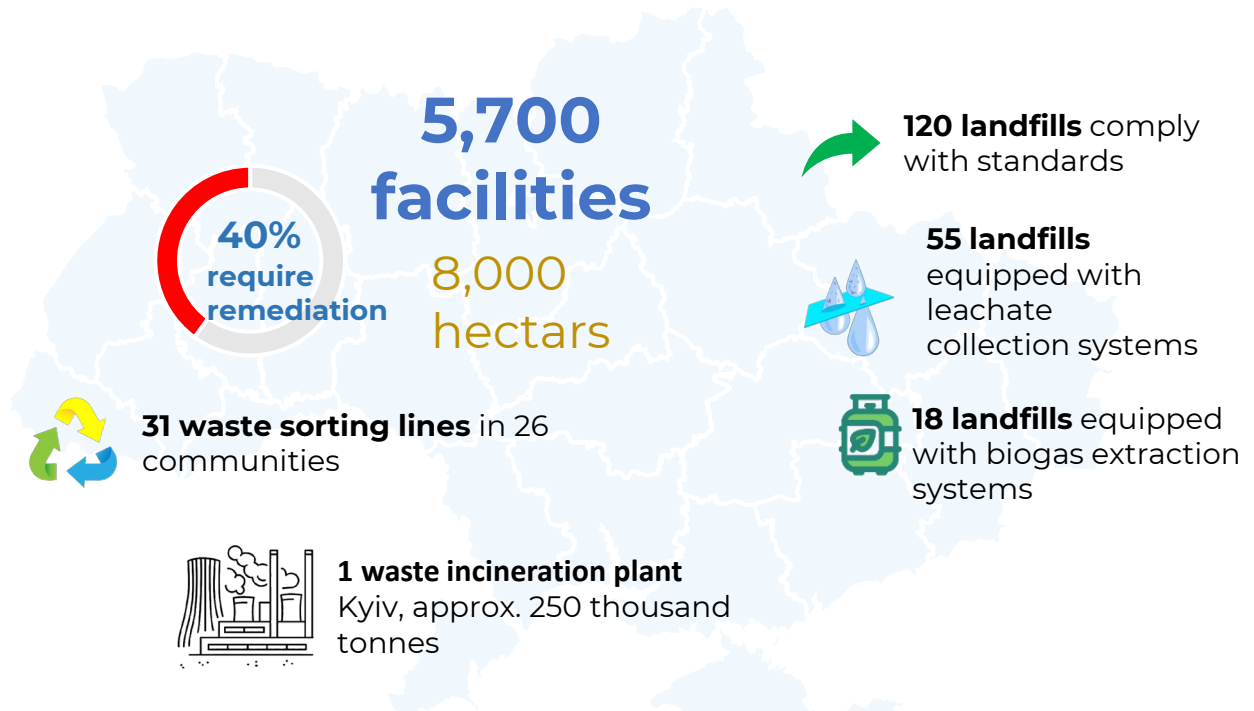


✓ Landfills in Ukraine: Waste Mapping

✓ Waste disposal (landfilling):



Data: Statistical Yearbook of Ukraine, 2024



Source: National Waste Management Plan for 2033
(Cabinet of Ministers of Ukraine Order No. 1353-r of 27 December 2024)



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Reforming the Waste Management System: from crisis-driven collection to an integrated, sustainable model

Areas:

-  **Waste prevention**
-  **Preparation for reuse**
-  **Waste recycling**
-  **Other recovery operations, including energy recovery**
-  **Waste disposal**

Sources:












- ✓ National Waste Management Strategy for 2030 (Cabinet of Ministers of Ukraine Order No. 820-r of 8 November 2017);
- ✓ National Waste Management Plan for 2033 (Cabinet of Ministers of Ukraine Order No. 1353-r of 27 December 2024);
- ✓ Regulations on the Unified Environmental Platform ‘EcoSystem’ (Cabinet of Ministers of Ukraine Resolution No. 1065 of 11 October 2021)



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Waste Management in Ukraine: before and after the Reform

Indicator	 before the Reform (period to 2017)	 Reform goal by 2030
 Landfilling of solid household waste	95% of the total amount	reduction to 30%
 Municipal waste recycling	only 3,04%	up to 50%
 Separate collection	575 units	5000 units
 Development of a network of regional municipal waste landfills	~5 500 illegal dumps	50 regional landfills built in line with EU standards
 Recycling capacities	65 units	800 new facilities for recycling, composting, and waste utilization
 Thermal waste treatment	2,37 %	10%
 Legislation	outdated, not updated for over 20 years	modern legislation — the Law of Ukraine ‘On Waste Management’ of 20 June 2022 No. 2320-IX, implementing seven EU directives.
 Compliance with EU standards”	absent	full implementation of European Union directives
 Waste data collection and reporting	paper-based, declarative	The Unified Environmental Platform ‘EcoSystem’, module ‘e-Waste’

The Hrybovychi landfill near Lviv: a neglected environmental disaster



Consequences:



Lviv faced a “waste blockade”, with other cities refusing to accept its waste



Soil testing revealed critically high levels of bacterial contamination



Cases of illegal waste dumping were recorded throughout Ukraine

The Chief State Sanitary Doctor of Lviv Oblast issued a resolution to stop the operation of the rubbish dump for Lviv city

Shifting of waste masses during firefighting

1957

2003

28.05.2016

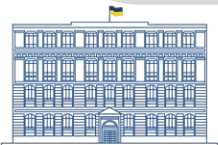
30.05.2016

Opening of the landfill in Velyki Hrybovychi

2003–2016 —
13 years of inaction by
local authorities:
orders were ignored

Large-scale fire at
the rubbish dump

4 people died — three
rescuers and a landfill
worker



From ecological crisis to an integrated system

Lviv is transitioning from landfilling to waste sorting, recycling, composting, and the safe closure of the old landfill

- 1 Restoration of a closed landfill site**
Stabilization of the landfill, leachate treatment, and environmental restoration of the Hrybovychi site
- 2 Waste separation and environmental awareness**
A waste separation system by fractions, supported by educational programs and awareness campaigns for residents, schools, and kindergartens.
- 3 Composting of organic waste**
Separate infrastructure for green and food waste, aimed at reducing mixed waste volumes and the burden on landfills.
- 4 Mechanical-biological treatment of waste (MBT)**
Construction of a waste sorting and treatment plant, transitioning from landfilling to the recovery of valuable fractions.



Financing and implementation of investment projects in the municipal waste management system in Lviv



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KEY STEPS

From decision to implementation

2016

Program for reimbursing additional costs for household waste collection and transportation

2017

Concept for municipal waste sorting in Lviv, aimed at improving sorting system

2017

Municipal Waste Management Strategy for Lviv for 2017–2019

2019

Updated list of waste fractions to improve sorting and recycling (amendments to the Concept of Municipal Waste Sorting for Lviv)

from 2021

Implementation of key components of the project “Comprehensive Improvement of the Municipal Waste Management System in Lviv”

2024

Comprehensive Environmental Program for 2024–2028 in the Lviv City Territorial Community;
Separate Waste Collection Program in the Lviv City Territorial Community

2025

Clean City Program for 2025–2030

FINANCIAL MODEL

The amount of funds used during the period, from 01.01.2021 to 01.01.2026

₴ **414,9** million
local budget funds

€ **46,8** million
external funding (loans/grants)
EBRD, EIB, HIDROTERRA

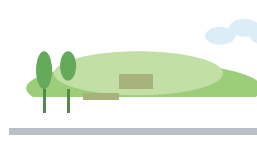
1 Construction of a mechanical-biological waste treatment complex



₴ **229,7** million **90,6%**
local budget funds

€ **24,0** млн евро **9,4%**
EBRD loan / grant

2 Restoration of the Hrybovychi Landfill



₴ **162,2** million **88,6%**
local budget funds

€ **21,0** млн евро **11,4%**
loan funds

3 Local composting station



₴ **23,0** million **96,2%**
local budget funds

€ **917,6** thousand **3,8%**
EIB loan for the purchase of equipment

Performance Audit: The Effectiveness of the Municipal Waste Management System in Lviv

Audit objective: to assess the effectiveness of the municipal waste management system and the efficiency of measures related to the collection, transportation, processing, and disposal of household waste in Lviv.

Audit scope: the municipal waste management system in Lviv, including the collection, transportation, processing, and disposal of household waste

Audit period: 2021-2025

Funds covered by the audit:

UAH252,7 million– local budget funds;
EUR 24,93 million– external funding (loans / grants.)

Main challenges in the municipal waste management system in Lviv



Strategic

- 1) no local waste management plan for the Lviv City Territorial Community;
- 2) implementation of measures is fragmented and scattered, and in some cases, they are carried out as separate components;
- 3) lack of measurable performance indicators in strategic documents, an integrated waste management system, and internal control;
- 4) no clearly defined accountability and coordination framework among entities involved in waste management

Financial



- 1) long-term (in 2016) use of a temporary mechanism for reimbursing additional costs to waste service providers (introduced)
- 1) lack of waste recycling facilities and adequate landfill capacity;
- 2) lack of economic incentives for waste sorting and waste prevention.

Management



- 1) recycling and waste disposal activities remain at the implementation stage;
- 2) three infrastructure projects are at different stages of readiness, ranging from non-implementation (site selection for a new landfill is ongoing) to deviations from planned targets (limited scaling of the composting station (pilot project), incomplete construction of waste processing facilities);
- 3) termination of the contract for the construction of a waste recycling plant, with the dispute referred to international arbitration;
- 4) delays in project implementation, combined with inflationary pressures, have led to increased total project costs and to decreased efficiency in the use of financial resources



Key audit questions and criteria

Sub-questions	Criteria	Sources of information	Methods
Key Question 1. How effective are waste management measures in the city of Lviv?			<p>Analytical procedures</p> <p>Data collection</p> <p>Observations</p> <p>Survey</p>
Have the established performance targets been achieved?	<ol style="list-style-type: none"> The targets for the following measures have been achieved:: <ul style="list-style-type: none"> - reducing the volume of waste generation; - preparation for reuse; - waste disposal. Public awareness of household waste management 	<ul style="list-style-type: none"> ✓ Law of Ukraine "On Waste Management" ✓ The National Waste Management Strategy in Ukraine until 2033 ✓ National Waste Management Plan until 2033 ✓ Regional Waste Management Plan for the Lviv Region until 2034 ✓ Methodological Recommendations on Raising Public Awareness Regarding Modern Municipal Waste Management 	
How economically reasonable and transparent are the reimbursement of additional funds for the removal of household waste and service payment provided to the public?	<ol style="list-style-type: none"> The funds were used in accordance with the requirements of the Program for reimbursement of additional funds for household waste removal; The amount of removed rubbish correspond to the obtained data from transfer stations and landfills; Current rates stimulate separate waste collection 	<ul style="list-style-type: none"> ✓ Program for reimbursement of additional costs for household waste removal; ✓ The procedure for forming the weighted average tariff for household waste management services as well as rates for the collection, transportation, recycling, and disposal of household waste 	
Key Question 2. To what extent have been implemented the infrastructure projects aimed at establishing of waste treatment facilities?			
To what extent had been ensured the necessary funding for projects, timely and full utilization of funds ?	<ol style="list-style-type: none"> The projects are fully funded in accordance with the approved plans (programs) and loan agreements. Untimely and/or incomplete use of funds (if any) caused entirely by objective reasons. 	<ul style="list-style-type: none"> ✓ Loan and grant agreements with the EBRD and the EIB, investor-level cost estimates. ✓ State planning documents adopted by the Lviv City Council regarding the implementation of infrastructure projects for solid waste processing by the municipal enterprise "Green City." ✓ Procedure for Approving the List of Projects Funded by the City of Lviv's Budget 	
To what extent have the project objectives been achieved?	<ol style="list-style-type: none"> The projects have been completed, and the planned waste processing facilities are now in operation The operation of the infrastructure helps to reduce the amount of waste sent to landfills and increase the amount of waste recycled. 	<ul style="list-style-type: none"> ✓ Law of Ukraine "On Regulation of Urban Development Activities" ✓ Construction Feasibility Study ✓ Technological Regulation of the LKP "Zelene Misto" for the food and garden waste 	
Key Question 3. To what extend is ensured the tracking and monitoring of household waste in Lviv?			Interview
Is the waste accounting conducted?	There are reports on the amount of collected/transported household waste	<ul style="list-style-type: none"> ✓ Procedure for State Waste Accounting and Reporting ✓ Procedure for Creating and Administering the Waste Management Information System (WMIS) 	
Are there clear procedures for monitoring waste management?	Monitoring procedures have been established.	<ul style="list-style-type: none"> ✓ Procedure for Monitoring Waste Treatment Facilities 	

Expected impact

Environmental: Enabling the conditions for transitioning to a circular economy

Financial: Ensuring the efficient use of public funds and attracting external financing

Management: Improving the effectiveness of municipal waste management measures

Oversight: Strengthening accounting and monitoring



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THANK YOU FOR ATTENTION



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