

IMPLEMENTATION OF EUROPEAN UNION DIRECTIVES  
ON WASTE MANAGEMENT INTO UKRAINIAN LEGISLATION  
WITHIN THE ASSOCIATION AGREEMENT

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**Abstract.** Implementation and compliance with European environmental standards is a significant factor in ensuring the implementation of the provisions of the Association Agreement with the EU. Among the environmental problems that pose threats to national security are the processes of generating significant volumes of production and consumption waste, the insufficiently effective level of their reuse, recycling and disposal. The article analyzes EU directives in the field of waste and resource management, in particular Directive 2008/98/EC, Directive 2008/98/EC, and Directive 1999/31/EC, which are included in the Association Agreement with the EU. Ukraine's commitments under the Association Agreement in the field of waste and resource management are studied. Monitoring of the implementation of the action plan for the fulfillment of the Agreement in the field of waste management is provided for each year. The results of the study prove that aligning Ukraine's legislation and regulatory framework in the field of waste management with European standards requires significant steps on the part of our state and the fulfillment of the Agreement's commitments.

**Keywords:** waste management, Directive 2008/98/EC, Directive 2008/98/EC, Directive 1999/31/EC, waste.

## 1. Introduction

The course towards European integration is a logical consequence of Ukraine's gaining independence. Its goal is to create conditions for entering the community of developed European countries through extensive internal transformations. After the Revolu-

tion of Dignity in 2014, Ukraine signed the main strategic document – the Association Agreement, which defines the relationship between Ukraine and the European Union.

The Association Agreement has been partially applied since 2014 and full implementation took place on September 1, 2017. The increasing support of Ukrainian citizens for European integration was reflected in the Constitution of Ukraine. In February 2019, the attainment of full membership of Ukraine in the EU was enshrined in the Constitution of Ukraine as a strategic course of the state

During the period from 2014 to the beginning of 2022, Ukraine fulfilled the Association Agreement by 63 %: partially implemented EU law in accordance with the Association Agreement, carried out a series of Euro-integration changes in almost all spheres of social, political and economic life, joined a number of key EU programs, intensified participation in macro-regional strategies and EU cross-border programs.

On June 23, 2022, the European Council made a historic decision to grant Ukraine the status of a candidate for EU membership. From this moment, a new stage of European integration of Ukraine began (Communication Team Integration, 2024). Over the years of the Agreement's implementation, the legal framework and mechanisms for introducing European norms into Ukraine's environmental policy have been

amended. Planning, development and adoption of legislative and regulatory acts to adapt national legislation to EU law are ongoing. Practical implementation of the relevant toolkit for implementing legislative norms continues. The full-scale implementation of a package of EU directives and regulations into Ukrainian national legislation in the field of environment and climate change is a complex and multi-stage process. The difficulty of the process is due to the current social challenges such as a full-scale war and the impact of military operations on the environment, the shortage of human and administrative resources, lack of funds, and the absence of effective institutions (Yanchynskyi, Panukhnyk, 2023).

The experience of European integration of Ukraine in conditions of war is unique. While resisting large-scale Russian armed intervention, suffering huge human and financial and economic losses, Ukraine continues European integration, deepens its partnership with the EU in sectoral directions, implements the recommendations of the European Commission and puts into practice the provisions of the Association Agreement. The specificity of the current stage of European integration is determined by a complex of diverse influences, challenges and threats (Project, 2022; Patseva et al., 2023).

Annexes XXX and XXXI of the Association Agreement between Ukraine and the EU (environment and climate change) to Chapter 6 “Environment” of Chapter V “Economic and Sectoral Cooperation” of the Association Agreement concern Ukraine’s commitments to improve policy and legislation in the areas of environmental protection and climate change. They regulate the obligation to gradually approximate their legislation closer to EU legislation within specified terms (Appendix, 2014; Society and environment, 2024).

The main condition for for Ukraine’s access to the European market is the implementation of the ISO quality management system and sectoral standards into production (Davydova et al., 2021).

Annex XXX of the Association Agreement highlights the following sectors: “Environmental management and integration of environmental policy into other sectoral policies”, “Atmospheric air quality”, “Waste and resource management”, “Water quality and management of water resources, including marine environment”, “Nature protection”, “Industrial pollution and man-made threats”, “Climate change and ozone layer protection”, “Genetically modified

organisms”. In Ukraine, the implementation of EU legislation in the field of environment takes place within eight sectors regulated by 29 sources of law – EU Directives and Regulations which establish general rules and standards that must be implemented into domestic law (Waste and resource management, 2014).

Implementation and compliance with European environmental standards are essential factors in ensuring the implementation of the provisions of the Association Agreement. Thus, according to the monitoring data “Pulse of the Agreement is monitoring of the implementation of the action plan of measures for the fulfillment of the Agreement”, the overall progress in the environmental protection for the period of 01.11.2014-31.10.2024 is 80 % (Pulse of the Agreement, 2024).

Unlike the current environmental legislation of Ukraine, which is declarative in many aspects, the sources of EU law determine quantitative and qualitative results that must be achieved by each country within a specified period (Volkova, 2023).

The peculiarity of the EU Directives is that the states must adapt their legislation to achieve the goals defined by the Directives but, at the same time, they determine the methods of achieving them. Among the environmental problems that pose threats to national security are the process of generating significant volumes of production and consumption waste, and insufficiently efficient levels of their reuse, recycling and disposal. Every year, more than 400 million tons of industrial and household waste are generated in Ukraine, polluting natural environment. Currently, the dominant waste processing method is its removal to specially designated sites or facilities (Malovanyy et al., 2021).

## 2. Theoretical part

Law in the field of waste and resource management is represented in the EU by more than ten directives:

- Directive 2008/98/EU on waste.
- Directive 2006/21/EU on management of waste from extractive industries.
- Directive 94/62/EU on packaging and packaging waste.
- Directive 2019/904 on reducing the impact of certain plastic products on the environment.
- Directive 2012/19/EU on electrical and electronic equipment waste.

- Directive 2000/53/EU on end-of-life vehicles.
- Directive (EU) 2019/883 on port reception equipment for the delivery of waste from ships.
- Council Directive 1999/31/EC on waste disposal.
- Regulation (EU) No. 1013/2006 on waste transportation.
- Regulation No. 2150/2002 – on waste statistics.
- Directive 2004/35/EU on liability for environmental damage.
- Directive 2008/35/EU – on environmental protection through criminal liability
- EU Regulation 1272/2008 on classification, packaging and labeling of hazardous substances and mixtures (Handbook, 2023).

The Association Agreement includes:

Directive 2008/98/EU (Directive, 2008), which establishes a list of waste, classification of waste management operations, requirements for handling hazardous waste, prohibition of mixing hazardous waste (Article 17), marking of hazardous waste (Article 19), availability of necessary documents when transporting hazardous waste through the territory of the EU countries, mandatory provision of separate collection of glass, paper and cardboard, metal, polymers, and textiles, by 2025, as well as preparation for reuse and recycling (Article 11), the need for separate collection of bio-waste and ensuring their further treatment and processing (Article 22). Target indicators: by 2025, it is necessary to prepare 55–60 % of waste for reuse and recycling, and by 2030 – 60–65 %.

Directive 2008/98/EU on waste (framework):

- adoption of national legislation and determination of the authorized body;
- preparation of waste management plans according to the five-stage waste hierarchy and waste prevention programs;
- establishment of a mechanism for full coverage of costs in accordance with the “polluter pays” principle and the principle of extended producer responsibility;
- establishment of a permit system for institutions/enterprises carrying out waste disposal or treatment operations, with special obligations regarding hazardous waste management;
- introduction of a register of institutions and enterprises involved in waste collection and transportation.

Directive 1999/31/EU (Directive, 1999) establishes that only waste that has been treated to reduce

its volume and environmental hazards can be disposed. The waste disposal fee must fully cover the costs of landfill construction, its operation, financial guarantee, closing and its maintenance for the following 30 years after its

Directive No. 1999/31/EU on waste disposal as amended by Regulation (EC) No. 1882/2003 includes provisions for:

- adoption of national legislation and determination of the authorized body (bodies);
- classification of waste disposal sites (Article 4);
- preparation of a national strategy to reduce the amount of municipal waste decomposing under the influence of microorganisms (biodegradable) that are sent to landfills (Article 5);
- establishment of a system of procedures for submitting applications and granting permits, as well as regarding waste acceptance procedures (Articles 5–7, 11, 12 and 14);
- establishment of control and monitoring procedures during the operation and closure of landfills, as well as procedures for post-closure care to ensure their environmental soundness (Articles 12 and 13);
- implementation of remediation plans for existing landfills (Article 14);
- establishment of a cost calculation mechanism (Article 10);
- ensuring the necessary treatment of relevant waste before its disposal (by sending it to landfills/waste dumps) (Article 6).

Directive No. 2006/21/EU on the management of waste from extractive industries and amendments to Directive No. 2004/35/EC (Directive, 2006):

- adoption of national legislation and determination of the authorized body (bodies);
- establishment of a system to ensure the development by operators (business entities) of waste management plans (identification and classification of waste handling/disposal facilities;
- characterization of waste) (Articles 4 and 9);
- establishment of a permit system, financial guarantees and a monitoring system (Articles 7, 14 and 17);
- establishment of procedures for management and monitoring of mining voids (Article 10);
- establishment of procedures for closure and further supervision of production sites of mining waste (Article 12);
- creation of a register of closed waste disposal sites (Article 20).

The term of implementation of the three above-mentioned directives, according to their various provisions, is from 2 to 5–6 years (Appendix, 2014).

The priority goal here is waste transformation into resources and reduction of waste generation. National legislation in this sphere, despite a fairly developed legal framework, does not fully or only partially meet the EU requirements. The implementation of these directives is associated with significant changes and additions in the legal field. Above all, Ukraine faces the need of transition to a new conceptual basis, within which the priority goals of waste management will ensure movement towards a “circular” economy with cascading use of resource utilization and minimization of residual product volumes.

### 3. Results and Discussion

The assessment of performance in waste and resource management according to the navigator of the Agreement is 13 %. The Agreement Navigator is an online tool created to display the quantitative and qualitative results of independent expert monitoring of the implementation of the Agreement on Ukraine's association with the EU. The provided quantitative values of progress are based on a unique assessment methodology developed by the PO “Ukrainian Center for European Policy” (PO “UCEP”).

Table 1

**Commitments of Ukraine according to the Association Agreement in the field of waste and resource management (formed by the authors based on data (Agreement Navigator, 2024).**

Commitment	Task	Action
Commitment #224  Implementation of European waste management principles  The commitment involves implementing European waste management principles, including adapting national legislation to European requirements, and introducing a planning system in waste management.	1. Adapt national legislation to European requirements	1.1. Adoption of a new waste management law. Adoption of a new national waste list. Waste classification procedure. Procedure for categorizing waste as hazardous. Other by-laws regarding inventory, disposal, keeping registers, etc.
	2. Introduce a planning system in the field of waste management	2.1. Adoption of the national waste management strategy. Adoption of the national waste management plan. Adoption of regional waste management plans.
Commitment #225  Ensuring proper management of household waste  The commitment provides for the provision of proper management of household waste, including the establishment of legal frameworks for household waste management, an effective system for the collection and transporting household waste, infrastructure for the recovery of household waste, and infrastructure for the removal of household waste.	1. Adopt legislative principles for managing household waste	1.1. Adoption of the law on household (municipal) waste 1.2. Adoption of the necessary bylaws and technical acts
	2. Establish an effective system for collecting and transporting household waste	2.1. Updating the material and technical base. Establishing centers for receiving and collecting household waste.
	3. Create infrastructure for household waste recovery	3.1. Construction of regional complexes for household waste recovery
	4. Create infrastructure for household waste removal	4.1. Conducting inventory of municipal solid waste landfills. Preparation of a list of landfills for closure. Preparation of a list of landfills for modernization. Construction of regional municipal solid waste landfills. Termination of operation of landfills that do not meet the requirements. Reclamation of closed landfills.
Commitment #226  Ensuring proper management of hazardous waste  The commitment involves ensuring the proper management of hazardous waste including the establishment of	Adopt the legislative principles for hazardous waste management	1.1. Adoption of a law on hazardous waste. Adoption of a law on spent petroleum products. Amendments to the laws regarding the licensing of hazardous waste management. Adoption of the necessary by-laws regarding requirements for operations with hazardous waste using NDTM, transportation, cross-border transportation regarding spent petroleum products, etc.

Commitment	Task	Action
legislative framework for hazardous waste management and infrastructure for the hazardous waste treatment.	2. Establish infrastructure for processing hazardous waste	2.1. Inventory and risk assessment of hazardous waste processing facilities. Making lists of facilities for closure and modernization. Closure and modernization. Reclamation of closed objects. Establishment of new facilities for processing hazardous waste. Establishment of infrastructure for processing spent oil products according to the above scheme.
<p>Commitment #227</p> <p>Ensuring proper management of industrial waste</p> <p>The commitment involves ensuring proper management of industrial waste, including the establishment of legislative frameworks for managing industrial waste and infrastructure for industrial waste treatment.</p>	1. Adopt legislative frameworks for industrial waste management	1.1. Adoption of legislative requirements for managing industrial waste and hazardous substances.
	2. Establish infrastructure for processing industrial waste	2.1. Inventory and risk assessment of industrial waste processing facilities. Preparation of lists of facilities for closure and modernization, conducting closure and modernization activities. Establishment of new facilities for processing industrial waste. Reclamation of closed objects.
<p>Commitment #228</p> <p>Ensuring proper management of extractive industry waste</p> <p>The commitment involves ensuring proper management of waste from extractive industry, including establishing legislative frameworks for managing such waste and infrastructure for its treatment.</p>	1. Adopt legislative principles of waste management of the extractive industry	1.1. Adoption of a special law on mining industry waste. Adoption of by-laws on the classification of objects for the disposal of such waste.
	2. Create infrastructure for processing waste from extractive industry	2.1. Implementation of new environmentally friendly technologies and practices to minimize the amount of valuable materials in such waste. Improving the safety of tailing storage facilities. Inventory and risk assessment of extractive waste disposal facilities. Preparation of lists of facilities for closure and modernization, conducting closure and modernization. Reclamation of closed facilities.
<p>Commitment #229</p> <p>Ensuring proper management of construction waste</p> <p>The commitment involves ensuring proper management of construction waste, including the establishment of legislative frameworks for managing such waste and the infrastructure for its treatment.</p>	1. Adopt the legislative principles for managing construction waste	
	2. Establish infrastructure for processing construction waste	2.1. Creation of special facilities for handling such waste for a certain category of settlements. Establishment of special regional facilities for handling such waste, including mobile installations (crushers).

In 2017, the commitments to adopt national legislation on waste management and to determine the authorized body (bodies) in this area was fulfilled by 100 %. The draft National Waste Management Strategy until 2030 was developed, the Draft Strategy was elaborated with EU experts and approved by the Cabinet of Ministers of Ukraine (CMU), a draft

Cabinet of Ministers' decree approving the action plan was developed, the Draft Action Plan was elaborated with EU experts, and the Waste Management Action Plan was approved by the Cabinet of Ministers. The commitment "Preparing waste management plans in accordance with the five-level waste hierarchy and waste prevention programs"

was also fulfilled by 100 % in 2017. The Cabinet of Ministers of Ukraine developed a draft decree approving the national waste management plan, which will be implemented through the development of waste management plans for and prevention of waste generation. The draft National Plan was elaborated with EU experts and approved by the Cabinet of Ministers.

In 2019, the planned implementation of the permit system for institutions engaged in waste disposal operations and the mechanism of full coverage of waste management costs was completed by 100 %. The mechanism of full coverage of waste management costs was implemented following the “polluter pays” principle and the principle of extended producer responsibility. A permit system has been established for institutions/enterprises engaged in waste removal or disposal operations with special obligations regarding hazardous waste management. A database (register) of institutions and organizations engaged in waste collection and transportation has been created (specifications and requirements for hardware have been developed, software has been designed, hardware has been purchased, installed and configured, testing has been conducted and data has been populated).

Also, in 2019, obligations regarding the adoption of national legislation and the determination of the authorized body (bodies) in the field of waste management were overdue; the establishment of a system to ensure the creation/development of waste management plans by operators (business entities) (identification and classification of means for waste management/disposal; waste characterization); establishment of procedures for the closure and further monitoring of production sites for waste from mining; establishment of a permit system, financial guarantees and a control system; establishment of the management and monitoring procedure of mining voids; creation of a register of closed mining waste sites.

In 2020, the obligation to ensure the legislative consolidation of EU requirements during waste disposal, which involved adoption of national legislation, determination of the authorized body (bodies), and classification of waste disposal sites was completed in full. A bill on amendments to the Law of Ukraine “On Waste” regarding waste disposal was developed, the bill was elaborated with EU experts, and the Law was adopted by the Verkhovna Rada of Ukraine.

The development of the National Strategy for reducing the amount of urban waste decomposing under the influence of microorganisms (biodegradable) sent to landfills, has been completed by 100 %. A Draft National Strategy for reducing the volumes of biodegradable waste sent for burial has been elaborated with EU experts and approved by the Cabinet of Ministers of Ukraine.

Establishing a system of procedures for submitting applications and granting permits, as well as procedures for waste acceptance; establishing control and monitoring procedures during operation and closure of landfills, as well as procedures for further care after closure to ensure their disposal and the necessary treatment of relevant waste before their burial in 2020 has been completed in full. A draft regulatory act “On Waste Disposal” has been developed (it establishes the waste disposal procedure, basic requirements for its implementation, classification of landfills, criteria for assigning landfills to a certain class, procedures and requirements for obtaining permits), the draft regulatory act has been elaborated with EU expert. It has been adopted.

The implementation of plans for cleaning up existing landfills has been completed by 75 %. An inventory of existing waste disposal sites has been conducted, in particular their technical characteristics, as well as information regarding the waste deposited on them, and the preparation of a list of waste disposal sites based on this inventory. Regional plans for cleaning up existing waste disposal sites have been developed either as a separate document or as part of Regional Waste Management Plans., The Regional Plans have been elaborated with EU experts; however, they have not been approved. The development of a mechanism for calculating the cost of waste disposal has been completed by 100 %. A draft resolution of the Cabinet of Ministers of Ukraine on the approval of the methodology for calculating the cost of waste disposal has been worked out with EU experts, and adopted by the Cabinet of Ministers. An assessment of the impact of cost recovery systems on the use of port reception facilities for ship waste and cargo residues planned for 2020 has not been carried out. Adoption of national legislation in the field of management of specific waste streams in accordance with EU law has been completed by 70 % (Pulse of the Agreement, 2024).

Table 2

**Monitoring of the execution of the action plan for the implementation of the Agreement by years, sub-direction: Waste management (formed by the author based on data (Pulse of the Agreement, 2024)**

2017	2019	2020
Adoption of national legislation on waste management and determination of the authorized body (bodies) in this sphere Execution – 100 %	Implementation of a permit system for institutions carrying out waste disposal operations and a mechanism for full coverage of waste management costs Execution – 100 %	Ensuring the legislative consolidation of EU requirements during waste disposal – adoption of national legislation and determination of the authorized body (bodies); classification of waste disposal sites Execution – 100 %
Preparation of waste management plans according to the five-level waste hierarchy and waste prevention programs Execution – 100 %	Adoption of national legislation and determination of the authorized body (bodies) in the field of waste management Execution – 0 %	Development of a national strategy for reducing the amount of municipal waste decomposing under the influence of microorganisms (biodegradable) that is sent to landfills
	Establishment of a system ensuring the creation/development of waste management plans by operators (business entities) (identification and classification of waste management/processing means, waste characterization) Execution – 0 %	Establishment of a system of procedures for submitting applications and granting permits, as well as for waste acceptance procedures; establishment of control and monitoring procedures during operation and closure of landfills, as well as procedures for further care after closure in order to ensure their disposal, ensuring the necessary treatment of relevant waste before their disposal Execution – 100 %
	Establishment of closure procedures and further monitoring of production sites for mining waste; establishment of a permit system, financial guarantees and a control system Execution – 0 %	Implementation of purification plans for existing landfills Execution – 75 %
	Establishment of a procedure for management and monitoring of mining voids Execution – 0 %	Establishment of a mechanism for calculating the cost of waste disposal Execution – 100 %
	Creation of a register of closed mining waste sites Execution – 0 %	Assessment of the impact of cost reimbursement systems on the use of port reception facilities for ship waste and cargo residues Execution – 0 %
		Adoption of national legislation in the field of management of separate waste streams in accordance with EU law Execution – 70 %

#### 4. Conclusions

Nowadays, the regulatory framework and legislation of Ukraine regarding waste management in the process of adaptation to the requirements of the European Union are represented by the following laws and documents: the Law of Ukraine “On Waste Management”, the Law of Ukraine “On Housing and

Communal Services”, the Law of Ukraine “On the Nationwide Program of Toxic Waste Management”, the Law of Ukraine “On Management of Radioactive Waste”, the Law of Ukraine “On Scrap Metal”; Resolution of the Cabinet of Ministers of Ukraine “On Approval of the Procedure for Classification of Waste and the National List of Waste” dated October 20, 2023 No. 1102; Resolution of the Cabinet of

Ministers of Ukraine “On Approval of the Procedure for Development, Agreement and Approval of Local Waste Management Plans” dated September 5, 2023 No. 947; Decree of the Cabinet of Ministers of Ukraine dated November 8, 2017 No. 820 “On the Approval of the National Waste Management Strategy in Ukraine until 2030”, Decree of the Cabinet of Ministers of Ukraine dated September 27, 2022 No. 1073 “On the Approval of the Procedure for Handling Waste Generated in Connection with the Damage (Destruction) of Buildings and Structures as a Result of Hostilities, Acts of Terrorism, Sabotage or Carrying out Works to Eliminate their Consequences and Amendments to Some Resolutions of the Cabinet of Ministers of Ukraine”. Prospects for developing the legal framework in the field of waste management are presented in the work plan of the Ministry of Environmental Protection and Natural Resources of Ukraine for 2024 (Ministry of Ecology, 2024). Bringing Ukraine's legislation and legal framework to European standards requires significant steps of our state and fulfillment of the obligations of Agreement No. 224-229. The key points in implementing the state waste management system are the improvement and harmonization of domestic regulatory documentation with international rules and standards regarding safe methods and technologies at all stages of waste management.

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