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Destruction waste management: Legal regulation issues

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Abstract

The study investigated the legal aspects of managing waste from the destruction of buildings and structures generated by military operations. The relevance of the study arises from the fact that destruction waste is a new category of waste for Ukraine, which appeared during a full-scale war. The relations on the management of destruction waste are also new. These relations require special legal regulation, the development of a set of regulations that would reflect both the characteristics of this waste and the specifics of its management operations, considering the current situation. The purpose of this study was to examine the state of legal regulation of

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destruction waste management, to identify the principal shortcomings in this area, and to formulate conclusions and proposals which are new to legal science. This purpose was fulfilled using a set of methods of scientific cognition, namely, the dialectical method, the method of analysis, the formal logical method, the historical legal method, the formal legal method, and the method of synthesis. As a result, the study found that the legislation of Ukraine on waste management does not properly reflect the specifics of destruction waste management. To improve the state of legal regulation of this area, proposals were developed for a subordinate regulation consolidating the algorithm for calculating the amount of generated destruction waste, controlling its quantity at distinct stages of its management, and improving the procedure for managing destruction waste whose owner is not established. The study identified the shortcomings of planning for the management of destruction waste at the national, regional, and local levels, and developed proposals for reflecting destruction waste management measures in the relevant waste management plans. The findings obtained are of theoretical significance for legal science in terms of research on the problems of construction waste management, are of practical value in further reforming waste management legislation and can also be used in the work of authorised entities in organising construction waste management operations

Keywords: waste management; war-related destruction waste; regulatory framework; waste management operations; waste storage; landfills; waste dumps

Introduction

One of the negative consequences of the full-scale war ongoing in Ukraine is the problem of generation and accumulation of waste from the destruction of buildings, structures, and other facilities due to active hostilities and constant shelling of Ukrainian settlements ("destruction waste"). By the beginning of 2024, according to preliminary estimates, all buildings in Ukrainian cities such as Bakhmut and Marinka were destroyed; up to 90% of residential buildings in Sievierodonetsk were damaged; substantial damage was sustained in Mariupol, Kharkiv, Chernihiv, Lysychansk, Popasna, Volnovakha, and other settlements, primarily in Donetsk Oblast (91.64 thousand housing units), Zaporizhzhia (10.28 thousand units), Luhansk (11.33 thousand units), Kherson (22.64 thousand units), Kharkiv (28.01 thousand units), Kyiv (23.74 thousand units), and Chernihiv (10.4 thousand units) Oblasts (Kyiv School of Economics, 2024). These are approximate figures for only one type of object – residential buildings

and structures. As of the beginning of 2023, the amount of waste from the destruction caused by the hostilities was estimated at 10–12 million tonnes (Ministry of Environmental Protection and Natural Resources, 2023). According to other data, as of April 2024, the amount of destruction waste was 223,237.3 tonnes or 235,780.9 cubic metres in Ukraine in total (Consequences of the war..., 2024). Without going into the reasons for such major differences in the volume of destruction waste and considering the daily growth of these figures, these fragmentary data illustrate the significance of urgently regulating the management of destruction waste, considering the specific features of wartime and the characteristics of this type of waste. Proper regulation of relations in this area is possible only through updating the legislative framework since the pre-war regulations do not reflect these features. The relevance of the study is also enhanced by the substantial reform of the waste management

sector as a result of the entry into force of the Law of Ukraine No. 2320-IX "On Waste Management" (2022) and the need to bring the current regulatory framework in line with it. The prerequisite for a qualitative transformation of the legal framework is to conduct scientific research, which is what the present study served.

Notably, the issue of waste generated as a result of military operations is gaining relevance in academic circles. Various aspects of this area are attracting the attention of researchers. A body of work is beginning to emerge that, albeit indirectly addressing the legal issues of managing the destruction waste generated by military action, creates the basis and outlines the relations that should be subject to legal regulation. O. Khrushch *et al.* (2023) investigated the issue of the impact of the Russian war on the environment overall and the pollution of the environment by war waste specifically. O. Hanoshenko *et al.* (2024) focused on the problem of the destruction of waste management infrastructure and, as a result, the increased environmental damage caused by the spontaneous accumulation of war waste. Interesting were the proposals made to develop concepts for waste reclamation, assessment and calculation of destruction waste as a basis for further planning and implementation of comprehensive measures to clean territories from war waste. Some researchers are working on the issue of regulating the reuse of waste, including destruction waste. For instance, V. Shvedun *et al.* (2023) explored the possibilities of building a circular economy and the potential for waste use in wartime and during the post-war reconstruction of Ukraine, proposing the development and implementation of a targeted comprehensive solid waste management programme. N. Antoniuk and V. Kostiuk (2024) determined the potential for reuse of construction waste generated by the destruction caused by military operations. The researchers substantiated the

need to apply the basic principles of the circular economy in post-war reconstruction and the establishment of a Ukrainian market for secondary construction materials. Of interest are also the developments of experts on radical changes in the urban environment caused by extensive destruction and the formulation of proposals for the use of destruction waste as a resource for the reconstruction (on the example of cities such as Borodianka and Irpin) (Ivashko *et al.*, 2024).

In terms of research on the legal aspects of managing the waste from the destruction caused by military operations, the study by M. Potip (2023b), deserves attention. The researcher paid considerable attention to the definition of the term 'war waste', its classification, and specific features of utilisation, and proposed corresponding amendments to the legislation. O. Trehub (2023; 2024) addressed the issue of defining the term "destruction waste", also exploring the feasibility of assessing the environmental impact of activities related to the management of this type of waste, and the prohibition of further use of asbestos-containing destruction waste.

Paying tribute to the above and other studies on destruction waste management and legal support in this area, it is necessary to continue work in this field, as new problematic aspects emerge with the accumulation of experience in applying legislation on this type of waste. Considering the above, the purpose of this study was to investigate the state of legal regulation of management of a new category of waste for Ukraine – waste from the destruction of buildings and structures resulting from military operations, and to formulate conclusions and proposals which are new to legal science. To fulfil this purpose, the following tasks were outlined: to provide a general description of the legislation on destruction waste; to investigate the legal issues of accounting for destruction waste, its storage, and management of destruction waste whose owner is not identified;

to analyse the state of legal regulation of destruction waste management planning.

Materials and Methods

The comprehensiveness and objectivity of the study was achieved through a broad source base. It was based on general regulations on waste management and special legislation on the management of destruction waste. These included the Law of Ukraine No. 2320-IX "On Waste Management" (2022), which served as the basic law for the area under study, the Land Code of Ukraine (2001), the Law of Ukraine No. 280/97-BP "On Local Self-Government in Ukraine" (1997). The study used the regulations of programme nature, such as the National Waste Management Plan until 2033 (Resolution of the Cabinet of Ministers of Ukraine No. 1353-p, 2022). The analysis of the array of subordinate regulations helped to identify the specific features and key shortcomings of the legal framework for the management of destruction waste: the Procedure for Management of Waste Generated in Connection with Damage (Destruction) of Buildings and Structures as a Result of Hostilities, Terrorist Acts, Sabotage or Works to Eliminate Their Consequences and Amendments to Certain Resolutions of the Cabinet of Ministers of Ukraine (Resolution of the Cabinet of Ministers of Ukraine No. 1073, 2022), the National Waste List (Resolution of the Cabinet of Ministers of Ukraine No. 1102, 2023), the Waste Classification Procedure and the National Waste List (Resolution of the Cabinet of Ministers of Ukraine No. 947, 2023), the Guidelines for the Development of Regional Waste Management Plans (Order of the Ministry of Environmental Protection and Natural Resources of Ukraine No. 403, 2024), the Procedure for Dismantling Objects Damaged (Destroyed) as a Result of Emergencies, Military Operations or Terrorist Acts (Resolution of the Cabinet of Ministers of Ukraine No. 474, 2022), the Procedure for Identification and Accounting

of Ownerless Waste (Resolution of the Cabinet of Ministers of Ukraine No. 1217, 1998). The content of perspective documents was also studied, such as the Draft Resolution of the Cabinet of Ministers of Ukraine "Some Issues of Identification and Accounting of Waste Whose Owner is Not Established" (2024).

The study's task and purpose, as well as the study's source base, were accomplished through the use of a combination of methods of scientific cognition. The study was based on the formal logical method, which enabled a meaningful characterisation of the basic category of the study – "destruction waste". The historical legal method was useful in studying the retrospective of legal regulation of the waste management sector and identifying those aspects that must be adjusted considering the new reality of public life in Ukraine. The formal legal method in combination with the synthesis method helped to identify areas for improving the legislation on destruction waste management. The abstract logical method helped to summarise the findings of the study and formulate relevant concrete proposals for changes to regulations and solving problematic issues.

Results and Discussion

General characteristics of legislation on destruction waste. Since Ukraine had not faced such a specific type of waste as destruction waste before the full-scale Russian invasion, special legislation to regulate relations on the treatment and management of this waste dates to 2022. In September 2022, the Procedure for Management of Waste Generated in Connection with Damage (Destruction) of Buildings and Structures as a Result of Hostilities, Terrorist Acts, Sabotage or Works to Eliminate Their Consequences and Amendments to Certain Resolutions of the Cabinet of Ministers of Ukraine (Resolution of the Cabinet of Ministers of Ukraine No. 1073, 2022), (hereinafter – Procedure No. 1073), which is still

the principal document to regulate the mechanism of destruction waste management.

As for the general principles of waste management, including destruction waste, as of the first half of 2025, the legal framework has been substantially updated: the Law of Ukraine No. 187/98-BP "On Waste" (1998) was replaced by the Law of Ukraine No. 2320-IX "On Waste Management" (2022), which entered into force on 9 July 2023. In pursuance of the provisions of this law, another document significant in the context of this study was adopted – the National Waste List (Resolution of the Cabinet of Ministers of Ukraine No. 1102, 2023), which singles out "waste generated due to damage (demolition) of buildings and structures as a result of hostilities, terrorist acts, sabotage, or work to eliminate their consequences".

Based on the above, at first glance, the legal basis for regulating relations regarding the handling and management of destruction waste appears to have been created. However, a detailed analysis of the content of the relevant acts reveals a series of major shortcomings. First of all, the framework Law of Ukraine No. 2320-IX "On Waste Management" (2022) does not contain special provisions that would address the specific features of destruction waste management. The law operates with the term and establishes rules for managing "construction and demolition waste". However, these wastes are not identical. The National Waste List (Resolution of the Cabinet of Ministers of Ukraine No. 1102, 2023) clearly distinguishes them into distinct categories: group "16 12" and group "17", respectively. In addition, as fairly noted by O. Trehub (2024), despite numerous proposals to define the term "destruction waste" in the said Law, this has not yet been done. Analogously, proposals to include in the Law the provisions on the requirements for the collection, transportation, storage, and treatment of destruction waste have stayed in

the theoretical plane (Synchanskyy, 2024). Such an approach can be explained by positioning destruction waste as a temporary phenomenon that will cease to exist after the end of hostilities. Moreover, Procedure No. 1073 (2022) is also limited in time. It is designed to cover the period of martial law and the reconstruction period. The latter is defined as 90 calendar days from the date of termination or cancellation of martial law in Ukraine. However, considering the composition of destruction waste, which includes harmful and hazardous components (asbestos, mercury, hazardous components of electrical and electronic equipment, waste explosives and ammunition, etc.), the large volumes of such waste, the difficulty (and often impossibility) of sorting this waste, the lack of practical experience in handling such waste and reliable information about its impact on the environment and humans, including in the long term, it would be wrong to expect that this waste will be "transformed" into any other type. Destruction waste is a new component of the modern Ukrainian reality, and it is neither possible nor advisable to set timeframes for the existence of special legislation at this time.

Another significant aspect that the authors of the project "Waste of destruction: Research on the prospects" (2024) as a disadvantage is the recommendatory nature of Procedure No. 1073 (2022). Since the measures stipulated by it are only "recommended" to be taken by the executive bodies of village, town, and city councils (military administrations of settlements), there are no grounds for prosecution in case of failure to take such measures. Hence, the management of destruction waste currently largely depends on the will of these entities and is often purely formal. This issue could be resolved by revising the requirements of Procedure No. 1073 (2022) and making them binding on authorised entities at the local level. However, according to the authors of the study, it is worth remembering that

destruction waste is generated as a result of war, under unforeseen circumstances, without the possibility of any planning of its amount, and is always the result of extraordinary events for the community. Therefore, before moving on to the imperative of managing the issue of destruction waste, it is necessary to address the shortcomings and gaps in Procedure No. 1073 (2022) that complicate and often render it impossible to implement destruction waste management measures at the local level.

Accounting for destruction waste. One of the aspects that must be improved is the accounting of destruction waste. According to Item 7 of Procedure No. 1073 (2022), such accounting should occur either at the place of generation of such waste, or at the places of its temporary storage, or at the facilities for its treatment. This function is entrusted to the authorised bodies (executive body of the village, town, city council (military administration of the settlement(s))). The information received must be posted on the official website of the authorised body. There is also a provision for monthly reporting by the authorised bodies to the regional state administrations, which must submit the information generalised for the region to the Ministry of Communities and Territories Development of Ukraine.

In the fourth year of the full-scale Russian invasion, there is a very low level of compliance with these requirements (the introduction to this paper illustrated the wide discrepancies in the amount of waste from the destruction). In 2024, only six regions of Ukraine (Lviv, Khmelnytskyi, Odesa, Zaporizhzhia, Dnipro, and Sumy regions) submitted information on destruction waste accounting, including three regions in the form stipulated by Procedure No. 1073 (2022) (ELH, 2024). In most cases, this is the amount of destruction waste placed in temporary storage facilities. The volume of destruction waste at the places of its generation was not actually recorded.

The principal reason for this situation was the lack of tools to quickly calculate the amount of waste. The most common method practiced by the authorised bodies was to determine the volume of waste removed by using the volume of the vehicle body used to transport the waste to temporary storage sites. As a result of extensive work in the summer of 2024, the NGO RESINK developed Guidelines for determining the volume of waste generated due to damage (demolition) of buildings and structures as a result of hostilities, terrorist acts, and sabotage (Satin et al., 2024) and an online calculator for waste from destruction that allows estimating the amount of waste in a few clicks based on the type of building, building area, or area of destruction (UST, 2023). Such results are highly commendable, as they are useful for authorities and greatly simplify the calculation of the amount of destruction waste generated. However, these developments have not yet been consolidated/reflected at the regulatory level. Considering the need to improve the regulation of the issue of accounting for destruction waste and unify the methods of calculation, the authors of the present study suggest that the Ministry of Communities and Territories Development of Ukraine consider approving the Methodological Recommendations for Determining the Volume of Destruction waste Generation at the level of an order and include a provision on their application in Procedure No. 1073 (2022). The authors of the study also believe that Procedure No. 1073 (2022) should establish the obligation to record the amount of destruction waste both at the places of its generation and at the places of storage, which will enable more substantive planning of further actions with such waste.

In addition, the current Procedure No. 1073 (2022) contains a list of components of destruction waste and possible ways to reuse them in Annex 1. This list does not factor in all types of destruction waste stipulated in the

National Waste List (2023). Namely, it does not include “ammunition waste”, “pyrotechnic waste”, “other explosive waste”, “destroyed military equipment”, “destroyed military equipment that does not contain liquid or other hazardous substances”, “damaged vehicles”, “damaged vehicles that do not contain liquid or other hazardous substances”. This discrepancy must be addressed by amending Procedure No. 1073.

Storage of destruction waste. According to Items 17 and 25 of Procedure No. 1073 (2022), destruction waste must be disposed of at waste treatment facilities. If the volume of destruction waste exceeds the capacity of waste treatment facilities, temporary storage facilities must be arranged. The requirements for temporary storage sites for destruction waste are set out in paragraphs 26-28 of Procedure No. 1073 (2022). Therewith, Resolution No. 964 “On Amendments to Certain Resolutions of the Cabinet of Ministers of Ukraine in the Field of Waste Management” (2024) clarified these requirements: the condition prohibiting the construction of temporary storage sites no closer than 2 kilometres from water bodies was removed, and the requirements for covering temporary storage sites were simplified. The law prohibits the construction of temporary storage sites for destruction waste within water protection zones and on land belonging to the category of water fund lands – paragraph 5 of Item 26 of Procedure No. 1073 (2022). Therewith, it is worth noting that this provision contradicts Item 27 of Section X of the Land Code of Ukraine (2001), which establishes the specific features of land relations regulation for the period of martial law. Analysis of the content of paragraph 5, Item 27.11. of Section X of the Land Code shows that the lands of the water fund may be used for temporary storage of waste from destruction. However, the type of designated purpose of the land plot and the type of functional purpose of the territory must be

consistent. Considering the superior legal force of the Code, the prohibition established by Procedure No. 1073 (2022) (a regulation of lower legal force) does not apply. Considering the danger of destruction waste to the environment and humans, the authors of this study propose to amend paragraph 5, Item 27.11. of Section X of the Land Code of Ukraine (2001) by excluding the lands of the water fund from those where temporary storage sites for destruction waste may be located.

As practice shows, at present, in territorial communities, the places of temporary disposal of destruction waste are either designated places at solid waste landfills or designated temporary storage sites (ELH, 2024). Here, according to N. Krasilich (2024), it is necessary to clearly understand the temporary nature of the stay of destruction waste in temporary storage sites. The longer such waste stays there, the greater damage it causes to the environment and human health. It is worth supporting the opinion expressed by D. Tokarchuk (2022), who pointed out that destruction waste should be disposed of at specialised landfills, without allowing the disposal of municipal solid waste or construction waste.

The key issue is the creation of construction waste treatment facilities that would ensure that all the operations required by law to manage construction waste are carried out. Due to limited material resources and technical capabilities, as well as a lack of personnel, the authorised bodies at the local community level are unable to solve this problem. It is worth agreeing with the thesis of O. Nasarenko *et al.* (2023) on the need to factor in the different amounts of destruction depending on the region and the intensity of hostilities, which makes it much more challenging for local communities to address the issue of destruction waste management. As Japan’s experience in managing destruction waste suggests, a comprehensive approach is needed at this stage, at the level of the state (Japan’s experience in..., 2024).

The key aspects include clear instructions to the authorised bodies on how to work with destruction waste; technical support to the authorised bodies (including sending experts to organise work with destruction waste); financial support (when the state reimburses the costs of destruction waste management). At the state level, it is also advisable to work on identifying the most suitable locations for the construction of destruction waste management facilities. It is possible to consider the experience of Syria in this area (Madi & Srour, 2019), based on the consequences of military operations and the extensive destruction they caused.

Planning for destruction waste management. Determination of the amount of destruction waste generated and arrangement of places for its temporary storage are only preliminary measures/operations in the management of this waste. The effectiveness of further operations, such as recovery of destruction waste, its removal and disposal, depends to a large extent on the quality of planning of these activities. Experts point out that without adequate planning for the recovery (namely, use as secondary materials) of destruction waste, and primarily construction waste, the area required for its disposal will increase manifold (Fisunenکو & Herasymova, 2022). This is unacceptable considering the overloading of existing landfills, the complexity of setting up new ones, and the environmental impact of such facilities. When analysing approaches to the management of destruction waste, it is advisable to consider the experience of industrial waste disposal, specifically ash and slag materials containing MgO and CaO (Orfanova, 2023).

According to the Law of Ukraine No. 2320-IX (2022), waste management planning is carried out at several levels: national, regional, local, and local (at the level of business entities). The highest level in the waste management planning hierarchy is the National Waste Management Plan.

According to Art. 51 of the Law, the National Waste Management Plan is developed for 10 years and is subject to revision every 4 years. The National Waste Management Plan until 2030, adopted in 2019 (Resolution of the Cabinet of Ministers of Ukraine No. 117-p, 2019), was in force until December 2024, with the last amendments introduced in September 2020 (Resolution of the Cabinet of Ministers of Ukraine No. 826, 2020), which included a change in the name of the relevant ministry. Despite the envisaged period of validity until 2030, this National Waste Management Plan did not address the reform of waste legislation and should have been revised in 2023 at the very least. It is logical that this document did not contain any mention of the management of destruction waste, since as of 2019, this type of waste was not distinguished in principle.

Resolution of the Cabinet of Ministers of Ukraine No. 1353-p (2024) approved the new National Waste Management Plan until 2033. It mentions destruction waste in the context of the war's impact on the waste management sector, states the extensive amount of such waste and prioritises the maximum possible reuse of this waste. The Action Plan for the Implementation of the National Waste Management Plan for 2025–2033 (Resolution of the Cabinet of Ministers of Ukraine No. 1353-p, 2024) approved by the same order stipulates a series of measures related to the management of destruction waste. The first of them involves conducting analytical studies and developing economic models for the management of destruction waste. The implementation period is 2025 and 2026. The performance indicators show that the measure has been implemented. However, as it has been repeatedly noted, there are still many unresolved aspects, including economic ones, related to the management of destruction waste.

The second measure is the creation of networks of local and regional facilities for the

treatment of local destruction waste. The implementation period is 2025-2033. Progress indicator – completed. It is difficult to agree with this, since a) the war is ongoing and it is impossible to predict when the hostilities will end and, accordingly, the destruction of facilities will stop; b) only individual projects on recycling of destruction waste are being implemented, usually with the support of foreign sponsors (e.g., the Pilot Project on Recycling of Destruction waste in Kyiv Region with the support of the Japan International Cooperation Agency (Waste from the destruction..., 2024). The systemic work at the national level is out of the question for the time being.

The third is the development of amendments to the Procedure for the development, approval and approval of local waste management plans (Resolution of the Cabinet of Ministers of Ukraine No. 947, 2023) regarding the management of waste from destruction. The deadline for completion of the measure is 2026. Milestone: a draft act has been submitted to the Cabinet of Ministers of Ukraine. In its current version, the Procedure does not contain any mention of destruction waste at all. This is difficult to explain, since as of 2023, this problem has already occurred, especially at the local level, and it is the executive bodies of village, town, and city councils that are responsible for organising and coordinating the management of destruction waste. The deadline for implementation of the measure (2026) is also controversial. Local authorities should already have clear guidelines for managing destruction waste, and any delay will only complicate further steps towards the possible recovery of such waste.

Considering the above shortcomings, it would be advisable to revise the National Waste Management Plan until 2033 (2024) to detail measures for managing destruction waste. Based on the National Waste Management Plan, Regional Waste Management Plans for each region of Ukraine should be developed within a year of

its entry into force – Article 51 of Law of Ukraine No. 2320-IX (2022). According to the Guidelines for the Development of Regional Waste Management Plans, approved by Order of the Ministry of Environmental Protection and Natural Resources of Ukraine No. 403 (2024), this document should contain a description of the current state of the waste management system. According to Item 4.2 of the Guidelines for the Development of Regional Waste Management Plans, destruction waste is not separated into a separate type in this part of the plan but is a type of construction and demolition waste. Analogous requirements are contained in the Requirements for Sections of the Draft Regional Waste Management Plan (Order of the Ministry of Environmental Protection and Natural Resources of Ukraine No. 81, 2024). This cannot be agreed with, as scientists have argued for the distinction between “destruction waste” and “construction and demolition waste”. Even though the Procedure No. 1073 (2022) distinguishes “waste generated by the dismantling of objects that were damaged or destroyed” by their origin, they cannot be identified with construction and demolition waste. The latter are generated under controlled conditions. There is a possibility of preliminary removal of hazardous items/elements/components. Preliminary waste sorting is possible. Destruction waste is the residue of various materials, substances, and objects that are always generated unpredictably. Along with construction materials that are valuable for reuse, it also includes household waste, hazardous substances in household items, and the remains of explosives, missiles, bombs, shells, etc. Often, destruction waste also contains the remains of human bodies (Safranov *et al.*, 2024). The National Waste List (2023) also clearly delineates destruction waste, as mentioned above. There are also specially developed rules for dismantling damaged (destroyed) facilities due to military operations, set out in the Procedure for

the dismantling of facilities damaged (destroyed) as a result of emergencies, military operations or terrorist acts (Resolution of the Cabinet of Ministers of Ukraine No. 474, 2022).

Another drawback of the Requirements for Sections of the Draft Regional Waste Management Plan (2024) is the inaccuracy of terminology in the area under study. Thus, Section II defines the term “destruction waste”. However, further on, sub-item 4.2.3.2 of Annex 1 mentions “waste from demolition”. Although these phrases are remarkably close, they can be considered different in terms of legal terminology. To avoid different interpretations of the content of the Methodological Recommendations for the Development of Regional Waste Management Plans and, subsequently, the implementation of regional plans, it is necessary to unify this concept by using a single term “destruction waste”.

To conclude the analysis of the state of legal support for planning of destruction waste management, let us focus on the requirements for local waste management plans. It was mentioned above that the Procedure for Developing, Approving and Approving Local Waste Management Plans (Resolution of the Cabinet of Ministers of Ukraine No. 947, 2023) does not mention any destruction waste. Item 14 of this document stipulates the inclusion of information on construction and demolition waste in the structure of industrial waste in the plan. The Guidelines for the Development of Local Waste Management Plans (2024) also do not address destruction waste. And the structure of the local waste management plan does not include this type of waste at all.

However, according to Part 5 of Article 52 of the Law of Ukraine No. 2320-IX “On Waste Management” (2022), local waste management plans must be coordinated with regional level plans. This will not be achieved if the established requirements are not met. Moreover, local authorities are to a certain extent removed from the

problem of destruction waste, which contradicts Procedure No. 1073, which recognises them as authorised bodies for accounting and organising destruction waste management operations.

The analysis of the source base shows that the local level is the basic level for organising effective waste management, including destruction waste. The Law of Ukraine No. 280/97-BP (2022) in its Article 26 stipulates the powers of local self-government bodies in the field of waste management. An analysis of these powers shows that local governments perform a full range of actions – from planning to selecting organisations for waste management. Waste management is a kind of “indicator” by which the work of local authorities is assessed (Potip, 2023a). In academic circles, a position is expressed regarding the unique role of local authorities and their high social responsibility in waste management at the local level (Tretyak, 2021).

It is at the community level that separate waste collection and sorting can be ensured, local businesses can be involved in the organisation of reuse of destruction waste, and cooperation with stakeholders can be established (Shyshpanova, 2023). Regional and national waste management policies should be based on the needs and capacities of local communities. This will ensure the effective implementation of the waste management hierarchy. Experts note that the latter is one of the key aspects of waste management reform and is in line with European principles in this area (Kravchenko, 2023). To improve the management of destruction waste at the local level, it is necessary to reflect these types of waste in Item 2 of part 2 of Article 26 of the Law of Ukraine No. 2320-IX “On Waste Management” (2022) and in sub-item 6 of Item ‘a’ of Part 1 of Article 30 of the Law of Ukraine No. 280/97-BP “On Local Self-Government in Ukraine” (1997). Effective management of destruction waste requires unification of terminology, consistency of regulations,

and active participation of local authorities, as it is at the community level that the waste management hierarchy is implemented following the European standards.

Management of unidentified destruction waste. The problem of so-called ownerless waste has always been a pressing issue for Ukraine. Illegal landfills have been a source of pollution of land, water, and the air. Studies of the pre-war period indicate that Ukraine lacks an infrastructure for managing such waste (Zaikova, 2021). This problem has become even worse since the war. The amount of unidentified waste, including destruction waste, is increasing. The reasons for this include the death of property owners, owners moving to another area or abroad, owners' inability to handle the volumes of destruction waste generated independently, overloading of existing landfills, etc. The imperfection of legal regulation in this area also does not help to improve the situation. According to Item 6 of Procedure No. 1073 (2022), the obligation to determine the owner of destruction waste is assigned to the authorised body (i.e., the executive bodies of village, town, or city councils). If the owner of destruction waste cannot be identified or such identification is not possible, the authorised body should organise the management of such waste. When determining the owner of destruction waste, the authorised body should be guided by the Procedure for Identification and Accounting of Waste Whose Owner is Not Established. The development of this document is stipulated by Item 14, Part 1, Article 19 of the Law of Ukraine No. 2320-IX (2022). However, this document is currently only in draft form. The Procedure for Identification and Accounting of Ownerless Waste (1998) is still in force. Having been developed according to the invalid Law of Ukraine No. 187/98-VR "On Waste" (1998), it at the very least does not follow the provisions of the current Law of Ukraine No. 2320-IX (2022).

In addition, according to L. Zaikova (2022), the existing Procedure for Identification and Accounting of Ownerless Waste (1998) does not contain an algorithm for local authorities to identify the owner of waste, and there is no concrete authority for the commission on ownerless waste management. This leads to complications in the work of such commissions, and their work is limited to identifying and recording ownerless waste. The Draft Resolution of the Cabinet of Ministers of Ukraine "Some Issues of Identification and Accounting of Waste Whose Owner is Not Established" (2024), which was published for discussion, contains a new Procedure for the identification and accounting of waste whose owner is not established. It is more substantive than the previous one, which the authors of the present study consider positive. The new Procedure regulates in detail the waste identification procedure, establishing the owner of waste and/or the waste generator, and the procedure for waste accounting with unified forms of documents. The adoption of this Procedure, in the authors' opinion, will facilitate and improve the regulation of the issue of identifying and accounting for waste whose owner is not identified. However, Item 2 of this Procedure contains a caveat: it does not apply to the identification and accounting of waste from destruction. However, this reservation is immediately clarified "unless otherwise stipulated by legislation". The Procedure No. 1073 (2022) explicitly states that the Procedure for Identification and Accounting of Waste Whose Owner is Not Identified should be applied. Moreover, there are currently no other regulatory documents that would govern this aspect, which effectively creates a gap in the legislation. To avoid this, it is advisable to exclude item 2 from the draft Procedure for Identification and Accounting of Waste Whose Owner is Not Identified. This will close the issue of destruction waste whose owner is not identified.

Conclusions

Summarising the findings of the study of the state of legal regulation of destruction waste management, the authors of the study offer the following conclusions which are new to legal science and confirm the achievement of the purpose of the study and completion of the tasks set. It was found that Ukraine is currently developing legislation on destruction waste management. The legal framework in this area is already characterised by the existence of a framework law and special subordinate legislation which address the specifics of this particular waste management. The key shortcomings in this area are gaps in the Law of Ukraine "On Waste Management" and Procedure No. 1073.

The Law of Ukraine "On Waste Management" lacks a clear definition of the concept of "destruction waste", which complicates its identification and management. Furthermore, despite the allocation of this category in the National Waste List, the law continues to use the broader term "construction and demolition waste", which creates potential legal conflicts. In addition, the study revealed that Procedure No. 1073, which is the key regulation in this area, has a series of substantial shortcomings. Firstly, it is limited to the period of martial law and reconstruction, which does not consider the long-term nature of the problem of disposal of such waste. Secondly, its provisions are of a recommendatory nature, which leads to selective application by local governments and reduces the effectiveness of waste management measures.

The study substantiated the need to stipulate at the regulatory level the methodology for rapid calculation of the volume of destruction

waste and to establish the obligation to record the amount of such waste both at the places of its generation and at the places of temporary and final storage. To minimise the harmful impact of destruction waste on the environment and human health, it is advisable to prohibit the placement of temporary storage sites for destruction waste on water fund lands.

It was determined that the current National Waste Management Plan until 2033 does not provide a systematic approach to the management of construction waste at the state level, limiting itself to individual measures. In terms of planning for the management of destruction waste at the regional and local levels, it is necessary to stipulate a separate component of regional and local management plans for this waste, without identifying it with construction and demolition waste. To overcome the problem of managing destruction waste whose owner is not identified, the study proved the need to extend the Procedure for Identification and Accounting of Waste Whose Owner is Not Identified to destruction waste.

Promising areas for further research include the development of effective legal mechanisms for the accounting and disposal of destruction waste, improvement of the regulatory framework for its storage, integration of circular economy principles into the management of such waste, and study of international experience to adapt best practices to Ukrainian legislation.

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Conflict of Interest

None.

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Управління відходами від руйнувань: проблеми правового регулювання

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Анотація

Стаття присвячена дослідженню правових аспектів управління відходами від руйнувань будівель та споруд, що утворюються через воєнні дії. Актуальність роботи зумовлена тим, що відходи від руйнувань є новою для України категорією відходів, яка з'явилась вже під час повномасштабної війни. Новими є й відносини із управління відходами від руйнувань. Ці відносини потребують спеціального правового регулювання, формування масиву нормативних актів, у яких би відображались як особливості цих відходів, так і особливості здійснення операцій з управління ними з урахуванням сучасних реалій. Вивчення стану правового регулювання управління відходами від руйнувань, виокремлення основних недоліків у цій сфері та формулювання нових для юридичної науки висновків та пропозицій й складає мету цього дослідження. Досягнення поставленої мети стало можливим через використання

в роботі комплексу методів наукового пізнання: діалектичного методу, методу аналізу, формально-логічного методу, історико-правового методу, формально-юридичного методу та методу синтезу. В результаті проведеної роботи було встановлено, що законодавство України у сфері управління відходами не відображає належним чином специфіку управління відходами від руйнувань. Для покращення стану правового регулювання даної сфери розроблено пропозиції щодо закріплення на рівні підзаконного нормативного акту алгоритму обрахунку обсягів утворених відходів від руйнувань, контролю їх кількості на різних етапах поводження з ними, удосконалення порядку управління відходами від руйнувань, власник яких не встановлений. Визначено недоліки планування управління відходами від руйнувань на національному, регіональному та місцевому рівнях, а також напрацьовано пропозиції щодо відображення у відповідних планах управління відходами заходів із управління відходами від руйнувань. Отримані результати мають теоретичне значення для правової науки в частині досліджень проблем управління відходами руйнувань, мають практичну цінність – при подальшому реформуванні законодавства про управління відходами, а також можуть бути використанні в роботі уповноважених суб'єктів при організації операцій з управління відходами від руйнувань

Ключові слова: менеджмент відходів; відходи руйнування, пов'язані з війною; нормативно-правова база; операції з поводження з відходами; зберігання відходів; полігони; звалища відходів