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Environmental safety and its legal support in Ukraine

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Abstract

The purpose of this study was to analyse Ukrainian legislation in the field of environmental protection and to identify the most effective legal acts related to ensuring this protection. Specifically, considering the analysis of the state of Ukraine's environment since the beginning of the full-scale invasion of Ukraine by the Russian armed forces. For an effective study of the topic, it was necessary to employ the historical and terminological methods. The study covered the essence of environmental security, its concept, content, and features, as well as the role of environmental security in the legal support of environmental protection in Ukraine. By defining the concept of environmental safety, the study identified the factors which influence its provision (specifically, environmental disasters caused by anthropogenic factors), and proved the significance and necessity of establishing effective legal regulation of this issue. The study analysed the legislation in the field

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of the natural environment and its security, particularly, the most significant legal documents. The impact of military operations (including the effects of military equipment, weapons, and chemicals they release) on the legal regulation of environmental protection was also determined. The study provided a legal definition of the concept of environmental safety and its features and demonstrated the factors that affect the safety of the natural environment. Specifically, the study analysed legal regulation in the field of environmental safety. The analysis of key legal documents in this area helped to identify a list of tasks that will help to improve the environmental situation in Ukraine. Thus, this study showed the state of legal support for environmental safety in Ukraine as of 2024 and will help in further reforming environmental policy

Keywords: environment; legislation; regulation; military action; full-scale invasion

Introduction

The issue of environmental safety in Ukraine has never been more urgent, considering the ongoing full-scale war with Russia, which has been underway since 24 February 2022. War affects not only human lives but also the environment. The missiles and drones that Russia systematically fires at Ukrainian cities contain complex organic compounds and chemical elements that are hazardous to people and the environment in which they live. As a result of hits to infrastructure and various industrial facilities, a considerable amount of hazardous chemicals is released into the atmosphere and water bodies. Such emissions of harmful substances threaten to destroy rare species of animals, birds, and plants. Meanwhile, the explosion of the Kakhovka dam caused massive damage to the Ukrainian flora and fauna, obliterating everything and everyone who could not escape.

Various land-based military equipment and its destruction, laying of landmines, creation of trenches – all this threatens to destroy the fertile chernozem soils of Ukraine. As a result of the prolonged use of military equipment, many toxic elements, including persistent organic pollutants and polycyclic aromatic hydrocarbons, enter the soil, which again leads to soil degradation and loss of agricultural productivity (Hryhorczuk *et al.*, 2024; Ovchinnikov, 2024). Y. Kornieiev (2021)

investigated the term “environmental security” by analysing Ukrainian regulations. The researcher contrasted this term with the term “environmental hazard” and correlated the term “environmental security” with the term “national security”. The study found that the state is the guarantor of environmental safety and outlined the regulatory framework for hazardous environmental facilities and the relevant requirements. The researcher emphasised the necessity of observing Ukrainian legislation as a whole, as environmental regulations are incorporated in many legal documents.

N.A. Makarenko and O.Y. Makarenko (2024) investigated the topical issue of ensuring environmental safety at the legal level during martial law. The researchers emphasised the significance and necessity of creating a programme that would record the damage caused, as well as the need to make direct changes to the legislation. D. Hryhorczuk *et al.* (2024) conducted a thorough analysis of the effects of the war on the environment and argued that the hostilities caused the release of chemicals into the air, soil, and water. The researchers also provided evidence that 30% of Ukrainian territory is contaminated by landmines and unexploded ordnance. According to their study, the Ukrainian state has suffered not only human losses but also faced an environmental

catastrophe. K. Kozmuliak (2022) analysed not only the impact of Russian armed aggression on the environment of Ukraine and thoroughly investigated the issue of its legal regulation. The researcher addressed the need for mandatory compliance with Ukrainian legislation and international law. The study demonstrated the effects of environmental pollution on environmental rights and freedoms. The researchers examined the issue of damage caused to the environment by Russian aggression and emphasised the need to follow Directive 2004/35/EC of the European Parliament and of the Council "On Environmental Liability with regard to the Prevention and Remediation of Environmental Damage" (2004) to properly establish damages, as the damages calculated by Ukrainian law do not correspond to reality and international standards.

S. Zarei and N. Mosavi Madani (2020), investigated the protection of environmental security at the international level in the 21st century. Specifically, based on the analysis of global and regional cooperation, as well as institutional and non-institutional cooperation. The researchers found that the key factor in the implementation of international environmental law is the institutionalisation of international cooperation. They also noted a new area of cooperation in this sphere – the private sector (non-governmental international organisations). The researchers emphasised the key role of these organisations in environmental cooperation.

T. Rebhi and I. Bouderbala (2023) investigated international environmental legislation. They argued that environmental protection began to be addressed only after the onset of industrial development, global warming, wars, and population growth. The researchers emphasised the significance of improving environmental legislation, establishing a judicial body for environmental protection, raising public awareness of environmental protection, and ensuring the rational use

of natural resources. R. van Steenberghe (2023) identified the impact of wars on the environment and the interaction between such types of law as international humanitarian law and environmental law. The researcher argued that the *lex specialis* principle is effective in resolving conflicts over the rules or interpretation of international humanitarian and environmental law, and the principle of systemic integration regarding the translation of their provisions.

Overall, the study of environmental security is at a fairly advanced level due to the relevance of this issue. Researchers have addressed the notion and content of environmental security and the environment, including on the territory of Ukraine under martial law. However, fewer researchers have been interested in the issue of ensuring legal regulation of environmental safety in Ukraine and have directly analysed legislation in this area. The purpose of this study was to examine the current state of environmental safety in Ukraine, considering the impact of military operations on the environment, and to analyse Ukrainian legislation on this issue. The principal objectives of the study were as follows:

- to define the essence of environmental safety, its concept, features, and content;
- to analyse Ukrainian and international regulations governing environmental safety;
- to establish the legal regulation of crimes against the environment in Ukraine.

Materials and Methods

Since the subject of the study primarily concerns the legal sphere, to interpret the legal acts and analyse them, the study employed the terminological method to investigate the concept and content of environmental safety, environment, national security, martial law, etc. Thus, during the study of national legal acts, the provisions of the following regulations were reviewed and analysed: the Constitution of Ukraine (1996), the Law of Ukraine No. 1264-XII

“On Environmental Protection” (1991), the Law of Ukraine No. 2469-VIII “On National Security of Ukraine” (2018), the Law of Ukraine No. 2697-VIII “On the Basic Principles (Strategy) of the State Environmental Policy of Ukraine until 2030” (2019), and the Criminal Code of Ukraine (2001). International treaties ratified by Ukraine and those that will be ratified as a result of future EU membership play a significant role in the legal regulation of environmental safety. These include the Consolidated Version of the Treaty on the Functioning of the European Union (2012); the United Nations Framework Convention on Climate Change (1992); the Montreal Protocol on Substances that Deplete the Ozone Layer (1987); the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989); the Convention on Biological Diversity (1992); the Stockholm Convention on Persistent Organic Pollutants (2001); Directive of the European Parliament and of the Council No. 2024/1203 (2024); the Additional Protocol to the Geneva Conventions (1977); the Rome Statute of the International Criminal Court (1998); the Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques (1976).

A special place among the general theoretical methods used in the study was taken by the historical method. Its use helped to trace the historical development of the notion of environmental security. The comparative method helped to identify the factors affecting the state of the environment in Ukraine. Specifically, when comparing military factors and the effects of industrial facilities on the environment. The method was also employed to systematically compare Ukrainian and international legislation.

Results

The concept and features of the phenomenon of environmental safety. The emergence of the concept of environmental safety is intricately

linked to the field of environmental health and safety. The term “environmental health and safety” was coined by the National Safety Council in the early 1970s to ensure the safety of industrial workers and prevent environmental pollution (Captions, n.d.). Since anthropogenic factors directly affected the state of the environment, and in case of negligence or carelessness, an environmental disaster could be caused. In the 1987 Brundtland Report, the World Commission on Environment and Development (WCED) was perhaps the first to highlight the correlation between environmental disaster and conflict. In this document, a broader definition of security was proposed, which includes not only the protection of a country’s territory and state sovereignty, but also the dangers arising from environmental degradation at multiple levels – local, national, regional, and global (Carius *et al.*, 1999).

Overall, WCED argued that the concept of security as it was commonly understood at the time – in the context of political and military threats to state sovereignty – needed to be further expanded to include growing environmental stress. Although environmental conditions have rarely been the primary cause of severe conflicts within countries or internationally, they can be part of the causal chain associated with conflicts, and in some cases, they can play a leading role (Carius *et al.*, 1999). As an example, the drought in Syria in 2006-2010 played a significant role in the growth of social tensions in the country. Specifically, due to the large-scale crop failure and displacement of villagers, complaints about the activities of the Syrian government and its distribution of natural resources increased (resulting in the Syrian Civil War) (UNFCCC, 2022). Another example of a comparable cause-and-effect relationship that affected several countries at once is the decline in the natural resources of the aquatic environment in Lake Chad. This sparked controversy and adversely affected the livelihoods of

people in Chad, Niger, Cameroon, and Nigeria (van Jaarsveld Bronkhorst & Bob, 2010).

Environmental protection generally refers to the functioning of institutions and departments that regulate the state of the natural environment, including control over the quality of air, water, food, soil, goods, and activities, with a view to ensuring public health and welfare. In the context of environmental protection, social well-being in general refers mainly to ecosystems of various scales, from habitats to the entire planet (Coronado *et al.*, 2009). In terms of regulating environmental safety in Ukrainian legislation, Article 50 of the Law of Ukraine No. 1264-XII "On Environmental Protection" (1991) prescribes the concept of environmental safety, specifically, it states that environmental safety defines the state of the environment in which deterioration of the environmental situation and threats to the health of Ukrainian citizens should be prevented. This is achieved through the implementation of various economic, political, legal, technical, and organisational measures that are interconnected. Overall, the population of Ukraine is provided with environmental safety through a variety of comprehensive actions. For instance, this article mandates that in case of environmental damage caused by individuals or legal entities, the court may decide to terminate their activities.

Thus, environmental safety refers to certain standards and measures that protect the environment from hazards and ensure the safety and social well-being of employees and the population living near industrial facilities, thereby preventing accidental damage to the environment. Environmental safety is a part of the broader concept of national security. This relation is mandated in Article 3 of Law of Ukraine No. 2469-VIII (2018), thereby effectively stating the obligation and significance of ensuring it.

As for the notion of the environment, there is no precise definition of this term in legislation. However, it can be defined as the delicate

interweaving of life and the means of sustaining it, called the biosphere, which includes air, soil, water, and living organisms (Human health and the natural environment, n.d.). Typically, the environment includes industrial facilities, workplaces, and laboratory facilities. Generally, environmental safety is one of the key issues for any industry, as failure to follow environmental safety rules and standards can have consequences not only for the industrial enterprise but also for the entire ecosystem (Anderson, 2025).

The environmental safety is described by the following specific features:

➤ the global nature and prevalence of environmental disasters and their effects on environmental safety. This means that the environmental problems of a certain territory are not limited to it exclusively, but in most cases spread to other territories (specifically, to the territories of other states or even continents). For example, certain local environmental pollution can cause global environmental disasters (oil spills into a river that flows into the sea – the pollution started in a small area of one city but eventually will lead to environmental pollution in several countries). As an example, regular oil spills into the Nigerian aquatic environment have devastating consequences not only for the flora and fauna of the Niger Delta, but also for the entire marine environment (Ikhumetse *et al.*, 2022; Ewim *et al.*, 2023);

➤ ensuring counteraction to environmental disasters and their consequences. This statement implies that it is easier to prevent a disaster than to handle it later. Specifically, if managers of enterprises or other institutions adhere to safety regulations established not only at the national but also at the international level, and most importantly, do not neglect them and monitor their compliance, this will help prevent the release of harmful substances into the environment;

➤ rational satisfaction of environmental needs, which involves ensuring the fundamental

right to a healthy environment. Accordingly, policies designed to improve environmental safety should factor in the diverse needs of society and the desire for social equality and inclusion in this area.

➤ inextricable link between environmental security and security in society (in the state). This is because in most cases, even a small environmental problem has global implications, which can lead to conflict not only within the state but also internationally. Environmental degradation can lead to the destruction of rare species of plants and animals, as well as damage to the source of natural resources, which will lead to violations of national and international law. An example is the Nile conflict – the construction of the Great Ethiopian Renaissance Dam on the Blue Nile River in Ethiopia. It was created to improve the system of electricity supply directly to Ethiopia and other countries. This conflict originated over the right to the water environment between Ethiopia, Egypt, and Sudan (Egypt and Sudan consider the construction of the dam to be a violation of the security of their water space) (Etichia *et al.*, 2024). This situation demonstrates how a local environmental problem can escalate into a global issue. That is why there is a need to monitor compliance with the safe state of the environment, etc. These features reflect the vulnerability of environmental security to various disasters, as well as their global and destructive environmental impacts.

Legal regulation of environmental safety in Ukraine. The legal basis for ensuring environmental safety in Ukraine is its national regulations. International treaties ratified by Ukraine play a crucial role in the legal regulation of environmental safety. These documents reinforce the significance of environmental safety and protection at the international level. Most of them prohibit the release of chemical or other hazardous substances into the environment, as well as the use of chemical weapons, ensure the protection of rare animals

and plants, and are generally aimed at protecting the environment in all its manifestations.

The principal source of environmental security and its significance in Ukraine is the Constitution of Ukraine (1996). Article 3 stipulates security as one of the highest social values of a person, and the concept of security in this case includes environmental security. Specifically, Article 13 contains a list of natural objects and establishes that they belong to the Ukrainian people. These objects include land, air, and water, as well as the resources they contain. Article 16 contains a concrete provision on the obligation to ensure and protect environmental safety on the territory of Ukraine, along with the preservation of the Ukrainian gene pool and the solution of environmental problems that arose as a result of the Chernobyl nuclear power plant (ChNPP). Another regulation directly governing environmental protection and environmental safety is the Law of Ukraine “On Environmental Protection”.

Article 3 of this Law of Ukraine No. 1264-XII (1991) contains guiding principles related to environmental protection, including the obligation to follow the legislation in the field of environmental safety; ensuring preventive measures to maintain a safe condition; guaranteeing a safe environment; creating safe conditions for the existence of species diversity; ensuring free conditions for the use of general natural resources and paid conditions in the case of special ones; solving environmental problems according to the Ukrainian legislation; international cooperation, etc.

Section XI of the Law of Ukraine No. 1264-XII (1991) provides information on measures to ensure environmental safety, specifically, it includes provisions on the use of hazardous substances and the obligation to follow the rules for working with such substances to prevent their release into the environment. Thus, the law introduces the preventive nature and significance of preventing an environmental disaster.

Specifically, part 4 of Article 3 defines environmental safety as one of the areas directly addressed by the national security policy of Ukraine. The Law of Ukraine No. 2697-VIII "On the Basic Principles (Strategy) of the State Environmental Policy of Ukraine until 2030" (2019) plays a significant role in the legal regulation of environmental safety, which is the principal document demonstrating current problems in the policy of ensuring a safe environment.

Thus, among the primary causes of environmental problems in Ukraine, the Law of Ukraine No. 2697-VIII (2019) identifies a considerable number of operating energy, chemical, and other enterprises whose activities involve harmful chemical waste that is released into the air and water bodies. This leads to the next problem, namely the failure of such enterprises to follow Ukrainian legislation and the lack of concrete actions by the state in response to environmental offences. This is followed by the failure of state authorities to ensure the inevitability of punishment in case of an offence.

A direct role in environmental problems is played by the Ukrainian population, which is unaware of their actions and how they affect the atmosphere and nature. Illegal deforestation, setting fire to dry leaves, throwing rubbish in the wrong places, discharging harmful substances into the soil and water bodies, etc. All these actions have harmful consequences for the environment. Insufficient funding for environmental protection, as evidenced by outdated equipment at state-owned enterprises that emits harmful substances, poor condition of water drainage and treatment facilities, and limited funding for environmental measures to improve the environment. Insufficient area of the nature reserve fund, which is a habitat for rare animals, birds, and plants. According to the Law of Ukraine No. 2697-VIII (2019), the nature reserve fund in Ukraine accounts for 6.6% of the

country's total area, while the European Union (EU) states distribute approximately 21% of their land for protected areas.

The Law of Ukraine No. 2697-VIII (2019) contains a list of strategic goals and objectives to address current environmental issues to be achieved by 2030. Thus, the key goals and objectives include 1) to ensure the achievement of a balanced state of development by 2030, which involves minimising dependence on non-renewable natural resources, while reducing environmental pollution to an acceptable level; 2) to implement an effective management system to ensure the rational use of natural resources, accounting for future needs; 3) to develop and implement state planning documentation, considering measures to eliminate the consequences of Russian military aggression; 4) to take measures for the rational use of natural resources, their monitoring, analysis, and reporting; 5) to create better conditions for the conservation of Ukraine's biodiversity; 6) to ensure continuous supervision over compliance with environmental legislation; 7) to implement EU legislation on environmental protection; 8) and to develop strategies to improve air, water, and soil quality. Overall, the Ukrainian legal framework for environmental protection is quite developed, but the problem lies in the implementation of these legal documents. The analysed Law of Ukraine No. 2697-VIII "On the Basic Principles (Strategy) of the State Environmental Policy of Ukraine until 2030" (2019) repeatedly mentions the obligation to follow the environmental legislation and the need for constant state supervision over its observance.

EU legislation in the field of environmental protection. Considering the events of recent years, Ukraine has begun the final path to EU membership. Since June 2024, the negotiation process on Ukraine's accession to the EU has been open. This effectively meant amending Ukrainian legislation in line with EU standards and rules, as well as ratifying international treaties binding on

the EU. This necessitated an analysis of not only Ukraine's current legal framework for ensuring environmental safety, but also international legislation on the subject. According to Articles 11 and 191-193 of the Consolidated Version of the Treaty on the Functioning of the European Union (2012), the EU is the competent authority in the field of environmental policy. Its powers include air and water pollution, waste management, and climate change. In turn, EU policy requires compliance with four binding principles, namely:

- precautionary approach means refraining from taking an action or policy that could cause damage to the environment or public health until there is certainty that it is safe to do so;

- prevention, which implies preventing environmental damage in the first place, and only then responding to it. Specifically, this principle is aimed at taking preventive measures to anticipate and avoid violations of environmental safety;

- if environmental pollution has already occurred, first of all, measures should be taken to clean the area where the pollution occurred;

- the "polluter pays" principle – this principle imposes liability on the perpetrator and their obligation to take measures to eliminate the damage caused and to pay the relevant costs. This principle is implemented within the framework of the Environmental Liability Directive, which aims to prevent or remedy environmental damage to protected species or natural habitats, waters, and soils (Environment policy: General principles and basic framework, n.d.). Compliance with these EU principles is a guarantee of environmental safety in international society. Overall, international treaties play a crucial role in the legal regulation of environmental safety, as most countries that have ratified them recognise the primacy of international law.

One of the major documents regulating environmental security is the United Nations Framework Convention on Climate Change (1992). This Convention is aimed at addressing the problems

arising from climate change. Specifically, Article 2 of the Convention aims to achieve a reduction in the level of greenhouse gases in the air to prevent harmful effects on the climate (reflecting the EU's basic principle of precaution). Thanks to the Convention, the infrastructure and policies that today serve as the foundation for combating climate change have begun to develop at the international and national levels. First of all, this concerns the measurement, monitoring, and documentation of harmful emissions and their consequences, as well as the implementation of various scientific studies to address the effects of climate change. However, the most significant result of the adoption of this Framework Convention is that this document laid the groundwork for the creation of the Kyoto Protocol of 1997 (relating to the reduction of greenhouse gas emissions), the Paris Agreement of 2015 (preventing global warming) and the Glasgow Climate Pact in 2021. The latter aims to "turn the 2020s into a decade of climate action and support" (What is the UN framework..., n.d.). Another global treaty is The Montreal Protocol on Substances that Deplete the Ozone Layer (1987), which aims to protect the ozone layer by phasing out the production and consumption of substances that deplete the ozone layer. The Protocol regulates the production and consumption of almost 100 synthetic chemicals that deplete the ozone layer. Compliance with the Protocol has reduced the concentration of harmful substances in the atmosphere, which helps to protect and strengthen the ozone layer to this day (Basel Convention..., 1989).

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989) aims to reduce the production of hazardous waste, promote safe waste treatment (e.g., waste separation into separate categories), and ensure an effective system of international hazardous waste transport. The Convention on Biological Diversity (1992)

(ratified by Ukraine in 1994) is essential for ensuring biodiversity security, covering ecosystems, various species of flora and fauna, and genetic resources. Overall, this Convention aims to protect and conserve biological diversity, ensure the sustainable use of its elements, and promote the equitable sharing of benefits arising out of the utilisation of genetic resources. Due to its wide recognition, the Convention has become a powerful legal instrument, and its sections on public awareness, education, and the protection of women's and indigenous peoples' rights are gaining in significance (The European Green Deal, 2019). The Stockholm Convention on Persistent Organic Pollutants (2001) aims to protect and safeguard public health and the environment from hazardous chemicals. The Convention regulates persistent organic pollutants (POPs) and requires the parties that have ratified it to make every effort to reduce and eliminate these POPs, as well as their production and distribution.

The EU's legal framework for ensuring environmental safety includes an entire range of international treaties that regulate this issue in certain ways. Generally, the environmental treaties address the following issues: air, water and soil pollution; waste management; protection of biodiversity and genetically modified organisms; assessment of the impact of hazardous substances on the environment; pollution control, etc. The European Green Deal (2019) was a major step towards improving the environment in 2019. The agreement provides strategies for transforming the European economy into a competitive and, most importantly, sustainable one by turning climate and environmental challenges into opportunities in all policy areas. It stipulates the core elements of the Green Deal, which define its objectives: achieving zero greenhouse gas emissions by 2050 (the target for 2030 is to reduce gas emissions by 55%); ensuring a pollution-free environment by 2050; updating environmental protection

legislation in line with the new goals; creating a sustainable production policy to use fewer materials and create products that can be reused and recycled; preparing for "clean steel production" based on hydrogen by 2030 (Decision of the European Parliament and of the Council No. 2022/591, 2022). Ukraine, as a future EU member state, has acceded to the Agreement, and in 2020, a climate change coordination group was established in Ukraine under the Agreement. However, with the onset of the full-scale invasion, Ukraine's path to the Green Deal was suspended. It became a challenge to achieve the Agreement's goals, as the number of environmental violations increased dramatically due to constant shelling and military operations and continues to grow every day.

The last, but no less crucial legal document is Directive of the European Parliament and of the Council No. 2024/1203 (2024). The updated Directive sets out the basic rules for defining criminal offences and penalties to better protect the environment and defines measures to prevent and combat environmental crime. The Directive is binding, and if ratified by Ukraine, the state will have to amend its criminal legislation. In particular, the updated Directive adds new categories of environmental offences. These include illegal ship recycling and water intake; major violations of EU chemicals and mercury legislation; sale on the market and export of products in breach of Directive of the European Parliament and of the Council No. 2024/1203 "On the Protection of the Environment through Criminal Law and Replacing Directives 2008/99/EC and 2009/123/EC" (2024). In the future, this Directive will be essential for defining and imposing penalties for environmental crimes and ecocide in Ukraine caused by the invasion of the Russian armed forces.

Legal regulation of environmental crimes caused by military operations in Ukraine. The full-scale invasion of the territory of Ukraine by the Russian armed forces had devastating

consequences not only for the Ukrainian population, but also for the Ukrainian environment. Constant missile attacks (missiles are fired with toxic fuel), the use of drones, the laying of landmines, the blowing up of dams (including the Kakhovka reservoir), the use of chemical weapons, and the unrest at nuclear power plants have all led to dramatic changes in Ukraine's nature. The Ministry of Agrarian Policy of Ukraine estimated that up to 95,000 tonnes of adult fish worth over USD 108 million could be destroyed as a result of the Kakhovka dam's destruction. The total damage to all bioresources could be 2.6 times

greater (Kasyanchuk & Kostenko, 2024). As a result of the massive attacks on the Ukrainian electricity grid, there have been many cases of uncontrolled leaks of the most potent greenhouse gas, SF₆ (sulphur hexafluoride) (International Renaissance Foundation, 2024). This is only the smallest part of the damage done to Ukraine's environment. The State Ecological Inspectorate of Ukraine has provided up-to-date information on the environmental damage caused by the hostilities, which is presented in Table 1. Environmental damage caused in the period from 24 February 2022 to 20 September 2024.

Table 1. Scale of environmental damage

Natural environment sector	Damage caused	Damages incurred (in UAH)	Scale of damage (in tonnes, hectares, m ² , kg, m ³ , pcs.)	Change in losses incurred (compared to the previous week)	Change in the extent of damage (compared to the previous week)
Atmosphere	Combustion of petroleum products	UAH 138.4 bn	3.07 mn t	+ 90.2 mn UAH	+ 2.0 thsd t
	Forest fires	629,3 bn UAH	84.4 thsd ha	+ 41,4 mn UAH	+ 6,0 thsd ha
	Other fires	5.9 bn UAH	1.9 mn m ²	-	-
Water	Pollution of water bodies	48.9 bn UAH	2,1 thsd t	-	-
	Pollution of water bodies	9.0 bn UAH	37.3 mn kg	-	-
	Unauthorised use of water resources	26.8 bn UAH	20.9 bn m ³	-	-
Land	Land pollution	1.13 tn UAH	21.0 mn m ²	+ 432.9 mn UAH	+ 1.1 mn m ²
	Land contamination	18.4 bn UAH	962.6 thsd m ²	+ 196.7 mn UAH	+ 17.4 thsd m ²
NRF	Damage to the flora	94.2 bn UAH	21.1 thsd ha	-	-
	Number of trees and plants destroyed and damaged	506.5 bn UAH	9.7 mn pcs.	-	-

Note: NRF – nature reserve fund, UAH (Ukrainian hryvnia), thsd (thousand), mn (million), bn (billion), tn (trillion), t (metric tonne), ha (hectare), m² (square metre), kg (kilogram), m³ (cubic metre), pcs (pieces)

Source: compiled by the authors of this study based on data from the State Environmental Inspectorate of Ukraine (2024)

Articles 16 and 50 of the Constitution of Ukraine (1996) stipulate not only the human right to a safe environment, but also the offender's obligation to compensate for the damage caused, which implies that citizens should perform functions of environmental protection and maintain ecological balance on their territory. The Criminal Code of Ukraine (2001) contains Article 441, which imposes liability for mass destruction of flora and fauna, and poisoning of the environment (ecocide). The Ukrainian state and its government most often file charges against Russia with the international community in connection with this Article.

Damage to the environment is usually a phenomenon that extends over the territory of several countries. If this damage is caused by military actions, it can lead to an environmental catastrophe on a global scale. That is why it is necessary to consider international legislation concerning the damage caused by Russian aggression. War crimes against the environment are regulated by international humanitarian law. There are many regulations that prohibit the use of such means of warfare that cause damage to the environment. Among such treaties, the Additional Protocol to the Geneva Conventions (1977) should be highlighted. Thus, Article 35 (3) of Protocol I contains a prohibition on the use of methods of warfare that are harmful to the environment (specifically, Article 55 contains a similar prohibition). Protocol I was ratified by Ukraine and entered into force in 1990, which means its implementation into Ukrainian legislation and further application.

Protocol I is considered the most comprehensive and effective regulation that ensures not only the protection of the environment in times of war but also guarantees fair consequences in case of violations of the Protocol's provisions. And in the situation of violations of the provisions of Protocol I by the Russian armed forces, it would be reasonable to define offences and apply sanctions

according to this Protocol I (Albakjaji, 2022). Article 8 of the Rome Statute of the International Criminal Court (1998) prohibits intentional damage to the environment by the military if it would have severe and long-term consequences for environmental safety. However, the Statute contains a gap in the definition of ecocide, which makes it impossible to establish precise responsibility for Russian crimes. ENMOD (1976) is another direct source that ensures environmental safety and prohibits the use of military actions that have consequences for nature. This Convention is "the first and, so far, the only agreement directly aimed at combating the means and methods of environmental warfare" (From ENMOD to geoengineering..., n.d.). Ukraine's ratification of ENMOD will be a crucial step in combating the consequences of Russian aggression and bringing Russia to justice.

The environmental damage caused by the hostilities in Ukraine has devastating consequences for many areas of the country, which is why there is a need to improve Ukrainian legislation. Overall, Ukraine has secured a legal framework for addressing environmental safety issues, but it proved to be ineffective in peacetime. Considering the martial law, there is a need to develop and implement international acts that directly address the consequences of military operations and establish liability for them. International legislation also contains gaps, particularly concerning the regulation of environmental safety during non-international armed conflicts (despite the abundance of regulations in the field of environmental safety) (Kenig-Witkowska, 2019). International humanitarian law plays an integral role in the protection of the natural environment during hostilities, but this area of law is quite variable and progressive. As a result, it is not possible to fully ensure this protection due to the emergence of new methods of warfare and the lack of relevant rules that would address the problem (Mutuma, 2021).

The consequences of Russia's invasion of the natural environment may affect not only the territory of Ukraine but also European countries (specifically, explosions in Moldova and the Russian Federation itself). Hazardous substances can spread through groundwater, wind, and rivers that cross the territories of several countries. Specifically, the situation at Zaporizhzhia NPP is tense due to a decrease in safety, which could lead to a nuclear disaster that would affect the entire Europe. This points to the need to engage the international community to jointly develop measures to improve the environmental safety system.

Discussion

Since 2014, Ukrainian territories have been subjected to systematic attacks by the Russian armed forces, which has global implications for the entire ecosystem of Ukraine. The bulk of mineral resources are in the occupied Donbas, which is why Donetsk region is considered a mining region. Due to systematic rocket attacks in Donbas, these mines are under constant threat, as is Ukraine's environmental security. When such facilities are hit, hazardous substances penetrate deep into the soil and, as a result of chemical compounds with minerals, penetrate the country's groundwater. And since the start of the full-scale invasion in 2022, not only mines, but also any rocket attacks and military operations throughout Ukraine pose an environmental threat.

W. Leal Filho *et al.* (2024) thoroughly examined the impact of various techniques and means of warfare on the environment. For example, they argued that military vehicles emit greenhouse gases and other toxic substances, which leads to dangerous air and soil pollution. Missile strikes, bombing, and other use of explosives directly cause changes in soil structure. As a result, the composition of soil microflora is disrupted, which negatively affects the vital activity of microorganisms and reduces the availability of

nutrients, thereby further exacerbating the environmental impact.

These statements consider the direct impact of military equipment on the environment of Ukraine, and especially the impact of hazardous chemical elements on it. Their study and analysis were extremely important for this study, as it allowed us to deepen the results already obtained. In most cases, the findings of this study were quite comparable, but W. Leal Filho *et al.* (2024) nevertheless investigated the impact of military operations on environmental safety in greater detail. V. Ladychenko (2019) also studied the problem of environmental protection legislation. Specifically, the researchers emphasised the ineffectiveness of the Environmental Inspectorate of Ukraine, the imperfection of the Criminal Code of Ukraine (2001) in terms of limiting environmentally hazardous activities (e.g., the Code does not prescribe punishment for international trade in endangered species of wild animals and plants, which is not in line with international obligations). Again, it is noted that there is no effective legislation to ensure the correct calculation of environmental damage. Author points out that among the most serious and at the same time urgent problems are the ineffectiveness of legislation on calculating environmental damage and the inconsistency of the existing damage calculation system with international standards; as well as gaps in criminal law regarding the lack of liability for certain types of environmental offences. This study was aimed directly at investigating the legal regulation of environmental safety in Ukraine, specifically, considering the effects of martial law on it. It examines the provision of environmental safety in national and international legislation and makes provision for an analysis of the legislation that prescribes this provision.

Comparing the findings of the above-mentioned researchers with those of the present study, certain joint conclusions were reached.

Specifically, that as of 2024, there is a need to strengthen cooperation between the world's leading countries, as well as with international organisations involved in environmental protection. The same applies to ensuring environmental safety not only in a concrete region, but also in the entire international society. As the historical consequences of environmental disasters (the nuclear bombing of Hiroshima and Nagasaki, as well as the Chernobyl accident) demonstrate, it is easier to prevent such a disaster than to fight its consequences for decades. It is to prevent an environmental catastrophe caused by military action on the territory of Ukraine that the world must unite to create measures that will not only help to gradually clean up dangerous affected areas but also ensure reliable protection of important strategic facilities and infrastructure. The scale of a potential future environmental disaster cannot be predicted, but it is likely that it will affect the territory of other states. Therefore, the international community must consider this factor and do everything possible to prevent devastating consequences.

There is a need to amend the national legislation of Ukraine to fill the existing gaps and create an effective system of environmental protection, as well as to ensure environmental safety. The study revealed a problem with the definition of the term "environment", as it was not found in either national or international regulations. Specifically, there is a discrepancy between Ukrainian legislation and international standards in calculating environmental damage, which calls into question the correctness of the Ukrainian authorities' assessment of such damage.

Updating Ukrainian legislation in line with international standards and regulations will help to respond effectively and, most significantly, promptly to new offences relating to Ukraine's environmental safety. At the same time, strengthening the existing relations between the Ukrainian state and the international community will help

to combat the consequences of Russian aggression on the environment. As a result of the study, it was concluded that martial law in Ukraine and active military operations have a large-scale destructive impact on the environment of Ukraine (Meaza *et al.*, 2024). That is why effective legal regulation of environmental safety is so critical, since, if Ukrainian legislation, Ukrainian citizens, and the Ukrainian authorities are constantly disregarded, the situation may get out of control and escalate into an environmental disaster.

Conclusions

This study defined the concept and content of environmental security, traced the formation of this concept, and identified the factors that influence its provision, and analysed the regulatory framework for environmental protection and environmental security. In terms of the essence of environmental security, it is a set of measures aimed at ensuring the protection of the environment from hazardous factors (in the present study, from military equipment and military operations).

The key factors affecting the state's ecosystem include hits to industrial and infrastructure facilities, which are extremely dangerous, as they result in large-scale releases of hazardous substances into the air, soil, and water; landmines that can explode at any time, releasing harmful substances deep into groundwater; the creation of trenches; and the use of military equipment – all of which are gradually destroying the Ukrainian environment. The study analysed the most effective regulations and their role in environmental protection. Specifically, the legislation should ensure environmental safety in Ukraine, protect the natural environment, and create a system of measures to prevent and resolve the consequences of an environmental disaster. The Law identifies the most serious environmental problems as follows: non-compliance by industrial facilities with environmental legislation, as well as

insufficient supervision by the competent authorities over its observance; human factors (burning leaves, dumping garbage in inappropriate places); insufficient funding in the natural sector; outdated equipment; and limited nature reserves. Strategies to ensure environmental safety respond to these problems: control over compliance with the law; inevitability of punishment for offences; budget increases; expansion of reserves, etc.

The study revealed that the legal framework for environmental protection (including national and international regulations) is quite complete. However, the problem was found to be in direct compliance with the law by both states and citizens. Ukrainian legislation stipulates a system of monitoring environmental crimes, contains provisions prohibiting and establishing liability for any actions that may lead to global and long-term

pollution of the ecosystem. International treaties, in turn (including those ratified by Ukraine), establish legal liability for violations of environmental security by military actions and contain a direct prohibition on the use of methods of warfare that destroy the ecosystem. Prospects for further research are a thorough analysis of the methodology for calculating fugitive emissions of pollutants or a mixture of such substances into the atmosphere as a result of emergencies and/or during martial law and determining the amount of damage caused' in the context of this study.

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Conflict of Interest

None.

References

- [1] Additional Protocol to the Geneva Conventions of 12 August 1949, Relating to the Protection of Victims of International Armed Conflicts (Protocol I). (1977, June). Retrieved from https://zakon.rada.gov.ua/laws/show/995_199#Text.
- [2] Albakjaji, M. (2022). [The responsibility for environmental damages during armed conflicts: The case of the war between russia and Ukraine](#). *Access to Justice in Eastern Europe*, 4(17), 82-101.
- [3] Anderson, B. (2025). *What is environmental safety?* Retrieved from <https://www.andersoneng.com/what-is-environmental-safety/#:~:text=Environmental%20safety%20is%20defined%20by,the%20prevention%20of%20accidental%20environmental>.
- [4] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. (1989, March). Retrieved from <https://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf>.
- [5] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes. (1989, March). Retrieved from <https://www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx>.
- [6] Capptions. (n.d.). *EHS (environment, health and safety) definition*. Retrieved from <https://www.capptions.com/blog/ehs-definition>.
- [7] Carius, A., Baechler, G., Pfahl, S., & March, A. (1999). *Environment and safety: Research needs and research priorities*. Berlin: Centre for International and European Environmental Research.
- [8] Consolidated Version of the Treaty on the Functioning of the European Union. (2012, October). Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:12012E/TXT>.
- [9] Constitution of Ukraine. (1996, June). Retrieved from <https://zakon.rada.gov.ua/laws/show/254k/96-bp#Text>.

- [10] Convention on Biological Diversity. (1992, June). Retrieved from https://zakon.rada.gov.ua/laws/show/995_030#Text.
- [11] Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques (ENMOD). (1976, December). Retrieved from <https://ihl-databases.icrc.org/assets/treaties/460-IHL-70-EN.pdf>.
- [12] Coronado, C.R., de Carvalho Jr., J.D., Yoshioka, J.T., & Silveira, J.L. (2009). Determination of ecological efficiency in internal combustion engines: The use of biodiesel. *Applied Thermal Engineering*, 29(10), 1887-1892. doi: 10.1016/j.applthermaleng.2008.10.012.
- [13] Criminal Code of Ukraine. (2001, April). Retrieved from <https://zakon.rada.gov.ua/laws/show/2341-14#Text>.
- [14] Decision of the European Parliament and of the Council No. 2022/591 "On a General Union Environment Action Programme to 2030". (2022, April). Retrieved from <https://wecoop.eu/regional-knowledge-centre/eu-policies-regulations/>.
- [15] Directive of the European Parliament and of the Council No. 2004/35/EC "On Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage". (2004, April). Retrieved from https://zakon.rada.gov.ua/laws/show/994_965#Text.
- [16] Directive of the European Parliament and of the Council No. 2024/1203 "On the Protection of the Environment Through Criminal Law and Replacing Directives 2008/99/EC and 2009/123/EC". (2024, April). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401203.
- [17] Directive of the European Parliament and of the Council No. 2024/1203 "On the Protection of the Environment through Criminal Law and Replacing Directives 2008/99/EC and 2009/123/EC". (2024, April). Retrieved from https://environment.ec.europa.eu/law-and-governance/environmental-compliance-assurance/environmental-crime-directive_en.
- [18] Environment policy: General principles and basic framework. (n.d.). Retrieved from <https://www.europarl.europa.eu/factsheets/en/sheet/71/environment-policy-general-principles-and-basic-framework>.
- [19] Etichia, M. *et al.* (2024). Energy trade tempers Nile water conflict. *Nature Water*, 2(4), article number 337. doi: 10.1038/s44221-024-00222-9.
- [20] Ewim, D.R.E., Orikpete, O.F., Scott, T.O., Onyebuchi, C.N., Onukogu, A.O., Uzougbo, C.G. & Onunka, C. (2023). Survey of wastewater issues due to oil spills and pollution in the Niger Delta area of Nigeria: A secondary data analysis. *Bulletin of the National Research Centre*, 47(1), article number 116. doi: 10.1186/s42269-023-01090-1.
- [21] From ENMOD to geoengineering: The environment as a weapon of war – CEOBS. (n.d.). Retrieved from <https://ceobs.org/from-enmod-to-geoengineering-the-environment-as-a-weapon-of-war/>.
- [22] Hryhorczuk, D., Levy, B.S., Prodanchuk, M., Kravchuk, O., Bubalo, N., Hryhorczuk, A., & Erickson, T.B. (2024). The environmental health impacts of Russia's war on Ukraine. *Journal of Occupational Medicine and Toxicology*, 19(1), article number 1. doi: 10.1186/s12995-023-00398-y.
- [23] Human health and the natural environment. (n.d.). Retrieved from <https://surli.xmwuzw>.
- [24] Ikhumetse, A., Abioye, O.P., Ijah, U.J.J., & Bankole, M.T. (2022). A critical review of oil spills in the Niger Delta aquatic environment: Causes, impacts, and bioremediation assessment. *Environmental Monitoring and Assessment*, 194, article number 816. doi: 10.1007/s10661-022-10424-x.

- [25] International Renaissance Foundation. (2024). *Climate damage caused by the Russian war in Ukraine over 24 months: Research by Initiative on Greenhouse Gas Accounting of War*. Retrieved from <https://www.irf.ua/en/publication/klimatychni-zbytky-zavdani-rosijskoyu-vijnoyu-v-ukrayini-za-24-misyaczi-doslidzhennya-ekodiyi/>.
- [26] Kasyanchuk, N., & Kostenko, A. (2024). *Biodiversity under siege: The environmental cost of russian war in Ukraine*. Retrieved from <https://eunighbourseast.eu/young-european-ambassadors/blog/biodiversity-under-siege-the-environmental-cost-of-russian-war-in-ukraine/>.
- [27] Kenig-Witkowska, M.M. (2019). [Protection of the environment in times of non-international armed conflicts – a gap to be filled in](#). *Studia Iuridica*, 78, 184-198.
- [28] Kornieiev, Y. (2021). The concept and legal regulation of environmental safety in Ukraine. *International Humanitarian University Herald. Jurisprudence*, 49, 122-125. doi: 10.32841/2307-1745.2021.49.26.
- [29] Kozmuliak, K. (2022). Legal regulation of environmental protection during armed conflicts on the example of Ukraine. *Uzhhorod National University Herald. Series: Law*, 1(73), 174-180. doi: 10.24144/2307-3322.2022.73.28.
- [30] Ladychenko, V., Yara, O., Uliutina, O., & Golovko, L. (2019). Environmental liability in ukraine and the EU. *European Journal of Sustainable Development*, 8(2), 261-267. doi: 10.14207/ejsd.2019.v8n2p261.
- [31] Law of Ukraine No. 1264-XII "On Environmental Protection". (1991, June). Retrieved from <https://zakon.rada.gov.ua/laws/show/1264-12#Text>.
- [32] Law of Ukraine No. 2469-VIII "On National Security of Ukraine". (2018, June). Retrieved from <https://zakon.rada.gov.ua/laws/show/2469-19#Text>.
- [33] Law of Ukraine No. 2697-VIII "On the Basic Principles (Strategy) of the State Environmental Policy of Ukraine until 2030". (2019, February). Retrieved from <https://zakon.rada.gov.ua/laws/show/2697-19#Text>.
- [34] Leal Filho, W., Pires Eustachio, J.H.P., Fedoruk, M., & Lisovska, T. (2024). War in Ukraine: An overview of environmental impacts and consequences for human health. *Frontiers in Sustainable Resource Management*, 3, article number 1423444. doi: 10.3389/fsrma.2024.1423444.
- [35] Makarenko, N.A., & Makarenko, O.Y. (2024). Legal ensuring environmental safety under martial law. *Uzhhorod National University Herald. Series: Law*, 2(82), 201-209. doi: 10.24144/2307-3322.2024.82.2.32.
- [36] Meaza, H. *et al.* (2024). Managing the environmental impacts of war: What can be learned from conflict-vulnerable communities? *Science of the Total Environment*, 927, article number 171974. doi: 10.1016/j.scitotenv.2024.171974.
- [37] Mutuma, K.W. (2021). [The protection of the environment during armed conflict](#). *Journal of cmsd*, 7(1), 54-84.
- [38] Ovchinnikov, A. (2024). *Environmental consequences of the war in Ukraine: July 2024 review*. Retrieved from <https://surl.li/bybtws>.
- [39] Rebhi, T., & Bouderbala, I. (2023). *International legislation for environmental protection*. Retrieved from https://www.researchgate.net/publication/369305086_International_legislation_for_environmental_protection.

- [40] Rome Statute of the International Criminal Court. (1998, July). Retrieved from <https://www.ohchr.org/en/instruments-mechanisms/instruments/rome-statute-international-criminal-court>.
- [41] State Environmental Inspectorate of Ukraine. (2024). *Current information on environmental damage caused by the armed aggression of the Russian Federation*. Retrieved from <https://www.dei.gov.ua/post/2965>.
- [42] Stockholm Convention on Persistent Organic Pollutants. (2001, May). Retrieved from <https://www.pops.int/TheConvention/Overview/TextoftheConvention/tabid/2232/Default.aspx>.
- [43] The European Green Deal. (2019, December). Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2019:640:FIN>.
- [44] The Montreal Protocol on Substances that Deplete the Ozone Layer. (1987, September). Retrieved from <https://ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>.
- [45] UNFCCC. (2022). *Conflict and climate*. Retrieved from <https://unfccc.int/news/conflict-and-climate>.
- [46] United Nations Framework Convention on Climate Change. (1992, May). Retrieved from https://treaties.un.org/doc/source/recenttexts/unfccc_eng.pdf.
- [47] van Jaarsveld Bronkhorst, S., & Bob, U. (2010). *Environmental conflicts: Key issues and management implications*. Retrieved from <https://www.accord.org.za/ajcr-issues/environmental-conflicts/>.
- [48] van Steenberghe, R. (2023). *International environmental law as a means for enhancing the protection of the environment in warfare: A critical assessment of scholarly theoretical frameworks*. Retrieved from <https://international-review.icrc.org/articles/international-environmental-law-protection-of-the-environment-924>.
- [49] What is the UN framework convention on climate change (UNFCCC)? (n.d.). Retrieved from <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-un-framework-convention-on-climate-change-unfccc/>.
- [50] Zarei, S., & Mosavi Madani, N. (2020). International cooperation for environmental protection in the 21st century. *CIFILE Journal of International Law*, 1. doi: 10.30489/CIFJ.2020.210212.1010.

Екологічна безпека та її правове забезпечення в Україні

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Анотація

Метою даного дослідження було здійснення аналізу законодавства України у сфері захисту навколишнього середовища, та виокремлення найбільш ефективних правових актів, що стосуються забезпечення даного захисту. Зокрема, враховуючи аналіз стану природного середовища України, з початку повномасштабного вторгнення російських збройних сил на територію України. Для ефективного дослідження теми, важливим було застосування історичного та термінологічного методів. У дослідженні розкрито сутність екологічної безпеки, її поняття, зміст та особливості, зокрема, продемонстровано роль екологічної безпеки у правовому забезпеченні захисту навколишнього природного середовища України. За допомогою становлення поняття екологічної безпеки, було виокремлено фактори, які впливають на її забезпечення (зокрема екологічні катастрофи, спричинені техногенними чинниками), а також доведено важливість та необхідність встановлення ефективного правового регулювання даного питання. Було проаналізовано законодавство у сфері природного середовища та забезпечення його безпеки, зокрема, досліджено найбільш вагомні правові документи. А також визначено вплив військових дій (включаючи вплив військової техніки, зброї, та хімічних речовин, які вони виділяють) на забезпечення правового регулювання у сфері захисту природи. У результаті дослідження, було надано правове визначення поняття екологічної безпеки та її особливостей, а також продемонстровано фактори, що впливають на забезпечення безпеки природного середовища. Зокрема, було проаналізовано правове регулювання у сфері забезпечення безпеки навколишнього природного середовища. Тоді як дослідження найбільш вагомних правових документів у даній сфері, допомогло виокремити перелік завдань, які допоможуть покращити екологічний стан в Україні. Отже, дане дослідження демонструє стан правового забезпечення безпеки навколишнього природного середовища в Україні за даними на 2024 рік та допоможе під час подальшого реформування екологічної політики

Ключові слова: навколишнє природне середовище; законодавство; нормативний акт; військові дії; повномасштабне вторгнення