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The ideology of environmental justice: a Ukrainian case study

Ідеологія екологічної справедливості: приклад України

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Written by:


Yuliia Krasnova¹
 <https://orcid.org/0000-0001-7898-9603>
Oleksandr Trehub²
 <https://orcid.org/0000-0003-0660-5783>
Viktor Ladychenko³
 <https://orcid.org/0000-0002-7823-7572>
Stanislav Yankovskyi⁴
 <https://orcid.org/0009-0006-5082-8158>
Olena Bezv⁵
 <https://orcid.org/0000-0002-3445-3564>

Abstract


The relevance of the study is related to the need for a theoretical and legal characterization of environmental justice as a legal phenomenon, as well as the development of a legal mechanism for its establishment in order to implement the principle of sustainable development. The dialectical method, methods of analysis, concretization, idealization, comparison, historical and other methods were used to achieve the purpose of the study. The paper reveals the essence of environmental justice as an advanced concept of society development. The ideology of environmental justice is based on equal access of people to a clean, healthy and sustainable environment, which is equated to the right to an environment that is safe for life and health in Ukrainian legislation. The paper pays special attention to the study of the phenomenon of sacrifice zones, approaches to their understanding


Анотація


Актуальність роботи обумовлена необхідністю теоретико-правової характеристики екологічної справедливості як правового явища, а також розбудови правового механізму її утвердження задля реалізації принципу сталого розвитку. Для досягнення мети цього дослідження було використано діалектичний метод, методи аналізу, конкретизації, ідеалізації, порівняння, історичний та інші методи. У статті розкривається сутність екологічної справедливості як передової концепції розвитку суспільства. В основу ідеології екологічної справедливості закладено рівний доступ людей до чистого, здорового і сталого довкілля, який в українському законодавстві прирівнюється до права на безпечне для життя і здоров'я довкілля. Особлива увага у цій статті приділяється дослідженню явища пожежованих зон, підходам до їх розуміння та характеристикам. У


¹ Doctor of Law, Associate Professor, Leading Research Fellow at the Department of Modernization of Economic Law and Legislation, the State Organization «V. Mamutov Institute of Economic and Legal Research of the National Academy of Sciences of Ukraine», Ukraine.  WoS Researcher ID: Y-8011-2019 - Email: krasnova.yuliia@nas.gov.ua

² Candidate of Law, Senior Research Fellow at the Department of Economic and Legal Studies of Economic Security Problems, State Organization «V. Mamutov Institute of Economic and Legal Research of the National Academy of Sciences of Ukraine», Ukraine.

 WoS Researcher ID: IWE-0080-2023

³ Doctor of Law, Professor, Head at the Department of International Law and Comparative Law, National University of Life and Environmental Sciences of Ukraine, Ukraine.  WoS Researcher ID: Y-1734-2018

⁴ Candidate of Law, Professor at the Department of International Law and Comparative Law, National University of Life and Environmental Sciences of Ukraine, Ukraine.  WoS Researcher ID: KGB-7147-2024

⁵ Candidate of Law, Associate Professor at the Department of Environmental Law, Educational and Scientific Institute of Law, Taras Shevchenko National University of Kyiv, Ukraine.  WoS Researcher ID: C-1850-2016

and characteristics. In the context of long-term hostilities in Ukraine, the combination of traditional (consequences of economic activity) and new (consequences of hostilities) environmental hazards, complex types of sacrifice zones (military impact zones) appear. The features of military impact zone are proposed to include the following: it involves other types of sacrifice zones; it "absorbs" nature reserves and other protected areas; ongoing hostilities, the presence of mines and other explosive objects hinder the implementation of environmental policy goals. Social payments (both temporary and permanent) can be a means of partial implementation of the principle of environmental justice for the population living in sacrifice zones.

Keywords: environmental justice, environmental risk, military impact, sacrifice zones, sustainable development.

контексті тривалих воєнних дій в Україні, поєднання традиційних (наслідки економічної діяльності) і нових (наслідки воєнних дій) видів екологічних небезпек з'являються комплексні типи пожертвуваних зон (зони мілітарного впливу). До особливостей зони мілітарного впливу пропонується віднести наступні: така зона включає інші види пожертвуваних зон; вона "поглинає" об'єкти природно-заповідного фонду, інші території та об'єкти, що підлягають особливій охороні; незавершені воєнні дії, присутність мін та інших вибухонебезпечних предметів перешкоджають ефективній реалізації цілей і завдань державної екологічної політики. Засобом часткової реалізації принципу екологічної справедливості щодо населення, яке проживає в пожертвуваних зонах, можуть стати соціальні виплати (як тимчасові, так і постійні).

Ключові слова: екологічна справедливість, екологічний ризик, мілітарний вплив, жертвувані зони, сталий розвиток.

Introduction

The problem of environmental justice is becoming increasingly relevant in the modern world, where the intensive use of natural resources seriously worsens environmental and social situation. Like in many other countries, environmental injustice in Ukraine are generally related to unequal distribution of environmental risks and benefits, which negatively affects various segments of the population and some regions. According to the Strategy of the State Environmental Policy of Ukraine for the period up to 2030, the differences in the socio-economic development of the regions of Ukraine cause an uneven man-made load on the environment. Industrial regions are characterized by a consistently high level of air pollution, a shortage of drinking water, depletion of groundwater horizons, significant changes in the geological environment and the occurrence of natural and man-made emergencies as a result of intensive mining. The state pays special attention to the environmental problems of coal regions and plans to solve them in conjunction with other problems within the program of fair transformation of these regions for the period up to 2030. Environmental risks in these regions are extremely high against the backdrop of the war that has been going on in Ukraine for more than a decade.

According to the State Environmental Inspectorate of Ukraine, the environmental damage caused by armed aggression was estimated at UAH 2.56 trillion in August 2024. Since the beginning of the full-scale invasion, 5531 cases of environmental damage have been documented. At the same time, the approximate amount of damage caused to the environment only as a result of the destruction of the Kakhovka hydroelectric power station by the Russian military is UAH 146 billion (Ministry of Environmental Protection and Natural Resources of Ukraine, 2023). The environmental impact of armed aggression is multifaceted and includes the consequences of the seizure of nuclear power plants, flooding of mines, destruction of environmentally hazardous industrial facilities, mining of agricultural landscapes and other areas, mass felling and burning of forest and agricultural land, generation of waste from the destruction of buildings and military equipment, loss of biodiversity, etc. It is also important that in the 24 months since the invasion emissions have increased to 175 million tons of carbon dioxide, the equivalent of putting 90 million new petrol cars on the road, or building 260 coal-fired power units of 200 MW each (Ecoaction, 2024).

The relevance of the study is related to the need to integrate the principles of sustainable development into national legislation and natural resource management. There is still a lack of a system approach in developing theoretical provisions regarding the legal content and supremacy of the ideology of environmental justice in Ukraine, especially in the context of a long and exhausting war. These theoretical foundations are crucial as a basis for creation effective legal mechanisms for the fair distribution of

environmental benefits and risks, the protection of the environmental rights, and promoting public participation in the adoption of environmentally important decisions.

Taking into consideration that the main problems in implementing the principle of environmental justice are social inequality, a low level of environmental awareness, imperfect legal regulation, etc., the **purpose** of the study is to analyze and develop conceptual grounds of establishing the ideology of environmental justice through legal means. This can contribute to further improvement and implementation of environmental and other legislation.

This study examines the following issues in their interrelation: the content of the principle of environmental justice in its legal sense; the relationship between environmental justice and the fundamental right to an environment that is safe for life and health; the phenomenon of sacrifice zones and the significance of their elimination for ensuring environmental justice; transformation of sacrifice zones in the context of the war in Ukraine.

The sequence and interconnection of these issues determine the logic of presenting the material and constructing the article to achieve the purpose of the study. The peculiarity of the article is the transition from the general theory of environmental justice to the special theory of sacrifice zones, which makes it possible to consider the problems under study from the perspective of opposite concepts – environmental justice and environmental injustice.

Literature Review

Some issues of the formation and development of the ideology of environmental justice have already been considered in foreign and Ukrainian literature.

The famous American scholar and environmental justice activist Robert Bullard made a significant contribution to the study of the impact of environmental policy on social minorities and marginalized communities. His research shows the disproportionate impact of environmental problems on local communities (Bullard, 1994). The book "Dumping in Dixie: Race, Class, and Environmental Quality" is a classic study in this field that highlights environmental inequalities (Bullard, 1992).

Sociologist and environmental activist Michael M. Bell, whose research focuses on the social aspects of environmental problems and their impact on various communities, also made a significant contribution to the development of this theory. Michael M. Bell is known for his approach to the study of rural communities and their interaction with environmental conditions. In particular, he examines how social structures and cultural practices influence the perception and resolution of environmental issues (Bell, 2024). Michael M. Bell also draws attention to the importance of biodiversity conservation and sustainable development, emphasizing that environmental justice considers both human and natural systems (Goetting & Bell, 2011).

Karen Bell (2014) continues the research in the field of environmental justice and concentrates on the disproportionate distribution of environmental risks, social and environmental aspects in the policies of different countries, the formation of sustainable and equitable communities, as well as other issues of the relationship between environmental problems and social inequality.

Steve Lerner is a well-known environmental justice researcher who focuses on documenting and raising awareness of environmental injustice. His most famous works are "Diamond: A Struggle for Environmental Justice in Louisiana's Chemical Corridor" (it describes the struggle of the African-American community in Louisiana against chemical pollution) (Lerner, 2005) and "Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States" (the author explores communities suffering from high levels of toxic pollution) (Lerner, 2010).

Ryan Juskus (2023), who draws a parallel between depletion of the environment and the development of religious and spiritual beliefs that can contribute to environmental ethics and ecoactivism, also speaks about the impact of mining and chemical production on local communities.

Maya K. van Rossum (2022), who is a famous environmental activist, argues for the need to amend state constitutions and the Constitution of the United States to enshrine the right to clean air, clean water and a healthy environment.

It is also important that the concept of environmental justice is not new to modern society. Its origin is associated with the ethnic minorities of the United States, who started the movement for equal environmental rights in an effort to overcome environmental racism, which was widespread until the middle of the twentieth century (Malin et al., 2019). From the beginning, there was a lot of debate among scholars about expanding the content of this concept. Initially, the essence of environmental justice at first was reduced to the unequal impact of toxic waste pollution on ethnic minorities and people with low social status, but later the range of such impacts was expanded and included the fight against industrial air pollution, noise, natural and man-made accidents and disasters, etc. (Sze & London, 2008).

In the context of this study, it is also important to pay attention to the publications devoted to the problems of international mechanisms for the protection of human rights under martial law (Kuchyk et al., 2023) and the scientific-philosophical methodology of a holistic approach to addressing the global environmental challenge (Shorina et al., 2024).

There are certain theoretical developments in the field of environmental justice in Ukrainian science. In particular, V. Andreytsev (2002) substantiated the concept of the law of environmental safety and revealed the features of the right to an environment that is safe for life and health. T. Hudima (2018) and L. Golovko (2024) discuss some problems of implementing the principle of environmental justice. V. Kostytsky, & I. Kostytska (2020) and M. Krasnova (2021) are the founders of the theory of the environmental state, in which the principle of environmental justice plays a major role. In addition, O. Pavlova (2017) identified the peculiarities of public participation in creating the environmental state.

The findings of foreign and Ukrainian researchers provide a basis for further development of theoretical and legal grounds for strengthening the ideology of environmental justice in Ukraine and other countries. At the same time, the current level of the theory does not give answers to the questions that are supposed to be considered in this study.

Methodology

The methodological basis of the study consists of philosophical, general and special methods.

The dialectical method made it possible to consider the ways to ensure environmental justice through the prism of eliminating environmental injustice. In this context, the law of the unity and conflict of opposites is especially important, as it allows us to explore the categories of "justice" and "injustice" in an inseparable connection and dependence. The method of analysis contributed to the identification of the main problems that complicate the realization of the right to an environment that is safe for life and health in Ukraine. Breaking down a complex problem into separate components makes it easier to find the causes of their occurrence and ways to solve them. The elements of the complex legal mechanism for ensuring environmental safety, including environmental planning (programming) and forecasting, strategic environmental assessment, ecological zoning of territories, environmental accounting, etc., were proposed by applying the method of concretization. In this case, the ascent from the abstract to the concrete fills this mechanism with the content and creates a conceptual basis for improving the strategy of state environmental policy and environmental legislation. Idealization was the methodological basis for determining the goal of environmental policy, namely ensuring the maximum even distribution of technogenic environmental risk throughout the territory of Ukraine. This goal reflects the desired (ideal) state of environmental safety, the full achievement of which is almost impossible. The comparison method was used to find out the difference between air quality standards for fine particulate matter adopted by the World Health Organization, the US Environmental Protection Agency and Ukraine. The obtained data can be used to improve the environmental monitoring system in Ukraine regarding air quality standards. The historical method made it possible to investigate the emergence and development of theoretical ideas regarding the concept of sacrifice zones. The prognostic method helped to assess the future prospects for the improvement of legal framework of establishing the ideology of environmental justice. The texts of legal acts were analyzed based on the dogmatic method, which is especially valuable for clarifying the formal content of legal provisions in their purest form as "the letter of the law".

This article also takes into consideration theoretical and empirical data on the compliance with the principle of environmental justice in Ukraine and the possibilities of ensuring it during the war and post-war times. The combination of the aforementioned methods made it possible to formulate specific theoretical provisions and proposals for improving the legal mechanism for ensuring environmental justice in Ukraine.

The main conclusions and results of the study are based on the analysis of national and international legal acts and other documents, in particular: the United Nations General Assembly Resolution 76/300 of July 28, 2022 "The human right to a clean, healthy and sustainable environment" (United Nations, 2022); the United Nations General Assembly Resolution 52/23 of April 4, 2023 "The human right to a clean, healthy and sustainable environment" (United Nations, 2023); the Constitution of Ukraine (Law No. 254к/96-BP, 1996); the Law of Ukraine "On Environmental Protection" (Law No. 1264-XII, 1991); the Land Code of Ukraine (Law No. 2768-III, 2001); and other documents.

Results and Discussion

Progress in the modern world is inextricably connected with adherence to the principle of sustainable development. According to this principle, all countries of the world should build a legal mechanism for the interaction of three components – economic, social and environmental. The principles on environment and development were enshrined in the Stockholm Declaration of 1972, and the Rio Declaration of 1992 confirmed this point (Libanova, 2019). The interaction of these three components makes it possible to implement the principle of justice based on the idea of equal rights and the harmonization of human interests (Horbatenko, 2003).

The principle of justice is a fundamental idea, the goal of law and has a wide scope of application (Holovchenko, 2012; Mareček & Golovko, 2022). This principle is interpreted as a principle of environmental justice in the field of environmental law (Hudima, 2018). Environmental justice is closely related to social justice, since there is not only an uneven distribution of the effects of environmental problems in society, but also social inequality is the cause of environmental problems. Social inequality is both a consequence and a cause of pollution, overconsumption, depletion of natural resources, loss of natural habitats, risky technologies, rapid population growth, etc. (Bell et al., 2020). For this reason, the modern technogenic society is the biggest polluter of the environment and at the same time one of the objects that suffer from pollution.

Environmental justice means the fair treatment and participation of all people in the development, implementation and enforcement of environmental laws, rules and policies (Beretta, 2012; Bell, 2014). However, this goal is achievable only if state guarantees protection against possible environmental hazards (environmental risks) and equal access to the decision-making process related to the environment.

According to the UNDP Environmental Justice Strategy, in order to accelerate the global movement towards environmental justice, countries need: 1) to speed up strengthening the environmental rule of law; 2) to provide for strong and effective national legal frameworks that stimulate fair and sustainable environmental management; 3) to guarantee access to justice on environmental matters (UNDP, 2022). It is also important that this activity is properly coordinated between countries by creating a single legal mechanism for the development of an environmentally just state.

In this regard, the declaration of the human right to a clean, healthy and sustainable environment by the UN General Assembly in Resolution A/RES/76/300 and Resolution A/HRC/RES/52/23 is a significant international event, which requires full implementation of multilateral environmental agreements in accordance with the principles of international environmental law. These UN documents actually enshrine features of the right to an environment that is safe for life and health that is a fundamental right in the legislation of Ukraine (Article 50 of the Constitution of Ukraine and Article 9 of the Law of Ukraine "On Environmental Protection"). Researchers describe this right as complex as it includes other environmental rights (the right to clean and high-quality air, water, plant and animal products, the right of free access to environmental information and other rights) (Krasnova & Krasnova, 2021).

The full realization of the right to an environment that is safe for life and health is hindered by the following problems: 1) as this right is fundamental and integrated, it is implemented only through the entire legal mechanism for ensuring environmental safety; 2) lack of experience in limiting, stopping and terminating environmentally hazardous activities in Ukraine and judicial practice in this area; 3) imperfection of environmental monitoring and accounting; 4) lack of the methodology of compensation for environmental damage caused to human life and health; 5) the need to develop environmental justice institutions, etc. Measures provided for by the Law of Ukraine "On Environmental Protection" and other legal acts are insufficient to solve these problems. It has been specified that a complex legal mechanism for ensuring environmental safety should cover: environmental planning (programming) and forecasting; strategic

environmental assessment; ecological zoning of territories; environmental impact assessment; environmental accounting; civil liability insurance of business entities for damage that caused by accidents at high-risk facilities and during the transportation of dangerous goods; permit and license system; environmental certification; environmental labeling; environmental taxation; environmental audit; environmental monitoring; and other elements (Krasnova, 2018).

In particular, it is necessary to take into account that environmental monitoring data may differ significantly from real indicators due to the number, accuracy and variety of monitoring installations, as well as an incomplete list of harmful substances and impacts that the Ukrainian Hydrometeorological Center covers for monitoring. Specialists of the NGO "SaveDnipro" have repeatedly drawn attention to this problem. The current trend is not only to expand the list of harmful substances that are subject to environmental monitoring, but also to strengthen the established standards. For the first time since 2012, the US Environmental Protection Agency (EPA) has tightened the annual health-based national ambient air quality standard for fine particulate matter (PM_{2.5}) from a level of 12 micrograms per cubic meter to 9 micrograms per cubic meter. The new American standard is higher than the recommendation of the World Health Organization (5 micrograms per cubic meter), but much lower than the limit set in Ukraine (25 micrograms per cubic meter) (SaveDnipro, 2023). This indicates the need for significant improvement of the environmental monitoring system in Ukraine, as it is directly related to the further possibility of people to defend their right to an environment that is safe for life and health in courts and other state authorities.

Ideally, environmental policy should be aimed at ensuring the maximum even distribution of technogenic environmental risk throughout the territory of Ukraine. Nonetheless, achieving this goal is currently impossible due to the hostilities and the need for investments to close or relocate environmentally hazardous facilities. These problems are associated with the so-called "sacrifice zones".

The concept of sacrifice zones originated in the field of animal husbandry, where it concerned methods of balancing economic and environmental costs and benefits. This concept was developed to index various land use methods for managing pasture and livestock farms: some of them were completely depleted, while others remained green in the long term (U.S. Department of the Interior, Bureau of Indian Affairs, 1973; Collier, 1970). Later, sacrifice zones began to be understood as any geographical areas that are subject to disproportionately large industrial pollution, where chemical or other types of harmful effects (physical, biological) are mainly related to the interests of industry and national security (Lerner, 2010).

The existence of sacrifice zones is a manifestation of environmental injustice and a violation of the balance in the relationship between humanity and nature. These zones are considered as: 1) areas with an increased influence of environmentally hazardous facilities; 2) part of the legacy of environmental racism and environmental injustice; 3) areas of mass disease due to consumption of polluted environment; 4) the moral stain of the nation (The Climate Reality Project, s/f).

The development of the theory of sacrifice zones resulted in the emergence of scientific and social currents against "extractivism" – the excessive extraction of all types of materials from nature (Fondation Danielle Mitterrand, 2017). However, the expansion of these areas continues due to the lack of effective industrial policies, accompanied by excessive degradation and pollution of the environment (van Rossum, 2022).

David R. Boyd, the UN Special Rapporteur on human rights and the environment, raised the issue of eliminating sacrifice zones in March 2022 (Human Rights Council, 2022). He believes that the reason for their emergence is the collusion of governments and business, which is the diametric opposite of the principle of sustainable development. The world community also considers the declaration of the human right to a clean, healthy and sustainable environment by the UN General Assembly in Resolution A/RES/76/300 and Resolution A/HRC/RES/52/23 to be a turning point in the campaign against sacrifice zones.

The theory of sacrifice zones developed in foreign science can contribute to solving both traditional and new environmental problems in Ukraine. The process of industrialization on the territory of Ukraine began in the 20s of the 20th century. The Ukrainian SSR was chosen as the main platform for industrialization in the USSR, since the main coal deposits and metallurgical enterprises built earlier were located here. The goal of this process was the primary development of the fuel, energy, chemical, machine and other subsectors of the industry. This led to the emergence of numerous sacrifice zones located mainly in the

eastern and southern parts of Ukraine. There is also a territory in the north of Ukraine that has undergone radioactive contamination because of the Chernobyl disaster in 1986.

The old industrial regions of the east and south of Ukraine are clear examples of new types of sacrifice zones formed under the military factors. In the context of active armed confrontation and intense hostilities, the problem of the environmental consequences of the war comes to the fore. The State Environmental Inspectorate of Ukraine and its territorial bodies have already recorded 5531 cases of environmental damage due to Russian armed aggression; the total amount of damages is estimated at more than UAH 2.56 trillion. These are only the direct environmental effects of a full-scale Russian invasion that are obvious. It is much more difficult to assess the scale of future environmental damage caused by hostilities, which will gradually manifest itself in the short, medium and long term in the multifaceted interaction of all environmental impact factors.

During the war in Donbas, which began in 2014, we realized all the complexity and ambiguity of the environmental consequences of the war. The direct damage caused to various components of the environment and ecosystems resulting from the use of weapons, military equipment, terrorist acts and sabotage is only the external and most understandable part of the military impact on the environment. However, during the active phase of the war and after it, indirect, cumulative and other less obvious types of environmental impact related to military factors require special attention. In particular, the cumulative effect is caused by the accumulation and combination of various anthropogenic and natural factors on the environment and human health. The armed confrontation in the east of Ukraine before the full-scale war with Russia made it possible to see how its implications exacerbate the environmental problems traditional for this region and "enter into a dangerous reaction with them". The hostilities led to the termination of many industrial enterprises, disruption of the operation of hazardous facilities, their damage and destruction, as well as temporary measures that limited state functions in the field of environmental protection (moratorium on state environmental control, extension of the term of environmental permits, etc.) (Trehub, 2020). War-induced "pressure" on the environment, both in nature and in scale, is significantly different from "extractivism" and pollution typical for peacetime and associated with the functioning of industries, agriculture and transport.

Therefore, the problem of eliminating so-called "ordinary" sacrifice zones is transformed into the comprehensive environmental restoration of the country in war and postwar times. It can be argued that all war-affected territories form a new sacrifice zone (military impact zone) with its special characteristics.

Firstly, military impact zone involves other types of sacrifice zones, namely: traditional sacrifice zones (centers of economic activity formed historically or created before the war within the planning of territories and placement of productive forces); sacrifice zones resulting from accidents at dangerous facilities (an example is the Chernobyl Exclusion Zone, which was under Russian occupation from February to March 2022 and 95% of which is still considered mined); test and experiment zones (these include the Yunkom mine in Yenakiyev, where an experimental nuclear explosion was conducted in 1979); zones of direct hostilities, in particular mined areas; other types of sacrifice zones.

Secondly, military impact zone "absorbs" not only the territories where increased environmental risks and an unfavorable environmental situation were present before the war, but also nature reserves and other protected areas. According to the Ministry of Environmental Protection and Natural Resources of Ukraine, more than 20% of Ukraine's protected areas have been affected by the war.

Thirdly, ongoing hostilities, as well as the presence of mines and other explosive objects in post-conflict territories hinder the implementation of environmental policy goals. In August 2024, suspected hazardous area of Ukrainian territory was 144,000 km² (Demine Ukraine, 2024).

Despite the successful foreign experience of managing sacrifice zones, Ukraine should become one of the pioneers in developing a strategy for the restoration of territories that have suffered from a number of factors simultaneously (including war, resource- and energy-intensive industries, etc.).

One of the guarantees of the right to an environment that is safe for life and health in Ukrainian legislation is the procedure for approval of the construction of environmentally hazardous facilities that cause the emergence of sacrifice zones. According to the Law of Ukraine "On Environmental Impact Assessment",

the basis of this activity is the obligation to comply with special legislation during construction, especially with the legislation on zoning of territories (Law No. 2059-VIII, 2017).

According to the State Building Standards (2018) "Composition and content of the territory zoning plan", zoning is the establishment of territorial zones within the settlement with the determination of the appropriate types of use of the territory, real estate and the establishment of urban planning regulations. Zoning is also urban planning documentation that sets the conditions and restrictions on the use of the territory for urban planning needs within the established zones.

In Article 112 of the Land Code of Ukraine, zoning is associated with special protection zones (Krasnova, 2011). They are designed to prevent the negative impact of sources of environmental hazard (Semchyk, 2007), which actually confirms the state recognition of sacrifice zones. Ukrainian legislation distinguishes many types of protection zones, including sanitary protection zones, special protection zones for transport (aerodrome environs, air approach strips, coastal strips of waterways, protective strips of forests), etc. The legal regime of protection zones is determined for hydrometeorological stations, communication lines, power lines, transport lands and other objects. Nevertheless, they do not guarantee the full realization of the right to an environment that is safe for life and health.

The main indicator of sacrifice zones is environmental risk, which should be controlled by the state. Taking into consideration the types, geography and number of sacrifice zones, it is impossible to ensure the same level of environmental risk on the territory of Ukraine. Technogenic environmental risks (primarily risks resulting from hostilities) prevail in the eastern and southern regions of Ukraine, and natural environmental risks are inherent in the western regions. At the same time, there has been a gradual "migration" of technogenic environmental risks to the western and central regions of the country since the full-scale invasion and relocation of many enterprises.

Code of Civil Protection of Ukraine also provides for measures to resettle the population from technogenically affected areas (Law No. 5403-VI, 2012). However, these measures are taken only in case of emergencies.

Reducing technogenic environmental risks is nearly impossible now and at least until the end of active hostilities and the beginning of recovery measures throughout the country. In this case, social payments for the population (Tarasenko, 2018) living in sacrifice zones could be a means to implement partially the principle of environmental justice. Potential sources of payments include environmental tax, funds aimed at eliminating and localizing the consequences of emergencies, as well as compensation for environmental damage caused by the aggressor country. Payments can be either temporary or permanent.

In addition, an important task is developing an effective system of environmental protection, law enforcement and judicial institutions that specialize in handling cases of environmental offenses. Environmental courts, which function successfully in many countries, should be created in Ukraine. The biggest obstacles to quick and effective consideration of environmental cases in Ukrainian courts are: lack of generalization of judicial practice in this area; application of the principle of jurisdiction; overloading of courts with other categories of cases; insufficient qualification of judges in this field; passivity of the public regarding the protection of environmental rights; various mandatory examinations confirming the cause-and-effect relationship.

The limitations of this study are primarily related to the lack of complete and reliable data on environmental damage caused by hostilities. This is due to different factors, including the lack of a perfect methodology for determining this damage, the incompleteness of hostilities, the inaccessibility of territories where armed confrontation takes place, the constant deterioration of the environmental situation, etc. As a result, it is often necessary to rely on intermediate data and reasonable assumptions. It should be added that there are only fragmentary sources of information regarding the impact of hostilities on environmental legislation and ways to improve it in the legal literature. This is especially true for the theory of environmental law, which needs to be substantially revised and enriched.

The findings of the study can be useful in the development of strategies, concepts, plans and programs in the environmental field, in particular the environmental part of the Post-War Recovery and Development Plan for Ukraine, the new Strategy of the State Environmental Policy of Ukraine, etc. Another area of application of these results is lawmaking. The National Academy of Sciences of Ukraine will use key

provisions of the article to prepare the Scientific Concept for the Development of Ukrainian Legislation, which is sent to the Cabinet of Ministers of Ukraine every five years for its consideration in the planning of lawmaking. The findings will also be used in drafting of environmental laws, as well as in expert and educational activities.

Conclusions

In the idealistic sense, the principle of environmental justice is one of the pillars of sustainable development and provides for equal environmental conditions for all people, universal minimization of environmental risks, and the involvement of everyone in environmental decision-making. The content of this principle is detailed by the UNDP that has developed a global strategy for environmental justice with a multidisciplinary, people-centred and environmental rights-based approach. The implementation of the strategy depends on the integrated efforts of states to strengthen the environmental rule of law, create an effective legal framework and provide access to justice on environmental matters.

The declaration of the human right to a clean, healthy and sustainable environment in the resolutions of the UN General Assembly has greatly increased the influence of the principle of environmental justice at both the international and national levels. However, this approach is not new for Ukraine, since the Constitution of Ukraine (1996) and the Law of Ukraine "On Environmental Protection" (1991) enshrined the right to an environment that is safe for life and health. These rights are very close in their content, because the above-mentioned characteristics ("clean, healthy and sustainable") actually indicate the safety of the environment. The theory of environmental law provides an expansive interpretation of the right to an environment that is safe for life and health as encompassing other environmental rights. In this regard, the extent to which this right can be realized is determined by the effectiveness of the legal mechanism for ensuring environmental safety as a whole.

It is extremely important that the problem of overcoming environmental injustice, on the one hand, and ensuring environmental justice, on the other hand, is closely related to the phenomenon of sacrifice zones. Originating in the field of animal husbandry and initially having a narrow meaning, this concept was significantly scaled and enriched with new characteristics over time. Eventually, sacrifice zones began to be associated with excessive industrial pollution of certain areas and the operation of environmentally hazardous facilities. The UN also relies on this meaning of the concept of sacrifice zones. Nevertheless, this study shows that the existing theoretical ideas no longer meet the new challenges, due to which the traditional influence of industry is aggravated by military factors. Wars are an integral part of human history, but breakthroughs in military technology and new types of weapons have made the environmental consequences of modern warfare catastrophic. The accumulation and interaction of various destructive factors, including military ones, have led to the emergence of new (complex) types of sacrifice zones. The former industrial regions of eastern and southern Ukraine, which have become the main theatre of hostilities, are a clear confirmation of this idea. From the perspective of the principle of environmental justice, military impact zones pose a triple danger as they cover other types of sacrifice zones, involve protected areas and impede the realization of environmental policy goals in general. In this regard, Ukraine will have to develop a largely unique strategy for eliminating mixed sacrifice zones in the war-affected territories. These provisions are a key part of the article and deserve special attention.

This study can become the basis for further development of the theory of sacrifice zones, taking into account the intensification of military threats, the reassessment of the environmental impact of modern warfare, as well as the combination of traditional and new environmental challenges. The proposed direction of research can open up new horizons for finding ways to implement the principle of environmental justice. In future research, it is necessary to analyze more deeply the problems of the formation of new types of sacrifice zones, the migration of technogenic environmental risks caused by the war and the related change in the fundamental approaches to the legal regulation of environmental relations.

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