

PROBLEM ASPECTS OF INTERNATIONAL LEGAL RESPONSIBILITY FOR DAMAGE CAUSED TO THE ENVIRONMENT AS A CONSEQUENCE OF ARMED CONFLICTS

ПРОБЛЕМНІ АСПЕКТИ МІЖНАРОДНО-ПРАВОВОЇ ВІДПОВІДАЛЬНОСТІ ЗА ШКОДУ, ЗАВДАНУ ДОВКІЛЛЮ ВНАСЛІДОК ЗБРОЙНИХ КОНФЛІКТІВ

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The article focuses on examining the international legal framework for addressing environmental damage during armed conflicts. It looks into the study of "ecocide" in the context of military aggression, emphasizing its evolving legal regulation which is linked to the establishment of a global mechanism for safeguarding environmental security during military invasions. This connection is explored, particularly in the context of the Russian Federation's actions on the territory of Ukraine. The article will also present cases of environmental damage caused during military conflicts around the world, drawing particular attention to prosecutions in this area. The damage caused to the environment as a result of Russian aggression is analyzed, in particular the explosion of Kakhovskaya HPP. Special attention is paid to environmental disasters that threaten international environmental and public safety. The article analyzes the existing international legal framework that enshrines provisions on environmental protection during military conflicts. Important aspects of legal practice are considered and proposals are put forward to improve the existing mechanisms of prosecution in order to protect the environment during armed conflicts. The issue of the need to create a special legal mechanism to ensure environmental safety, as well as expanding the scope of pre-existing norms of international law is also considered. The documents to be looked at are: the Rome Statute of 1998, the World Charter of Nature of 1982, the Stockholm Declaration of 1972, the Convention on the Prohibition of Military or Any Other Hostile Use of Means of Influence on the Natural Environment, the Additional Protocol to the Geneva Conventions, relating to the protection of victims of international armed conflicts and the Hague Convention of 1907 and the Convention on the Protection of the Environment from the Consequences of War in 1976. Particular attention is paid to the Rome Statute of 1972, which regulates and has provisions that relate to the protection of the environment during armed conflicts. The role of the International Criminal Court (ICC) in this area is also analyzed. The article highlights the need to improve the national and international legal framework for the effective settlement of environmental issues during armed conflicts. It will look into the mechanisms for the payment of reparations to Ukraine as a result of ecocide, citing existing cases as an example.

Key words: international environmental law, environmental crimes, military aggression, ecocide, environmental protection during military conflicts.

Стаття присвячена розгляду міжнародно-правового регулювання відшкодування шкоди довкіллю в умовах збройних конфліктів, досліджено поняття «екоциду» в умовах військової агресії, а також розвиток правової регламентації якого тісно взаємопов'язаний із формуванням світового механізму забезпечення екологічної безпеки під час воєнного вторгнення, зокрема російської федерації на територію України. У публікації наведено кейси щодо спричиненої шкоди довкіллю під час військових конфліктів у світі, а також особливості притягнення до відповідальності у цій сфері. Проаналізовано завдану шкоду, заподіяної довкіллю внаслідок російської агресії, зокрема в контексті підриву Каховської ГЕС, окремо увагу приділено екологічним катастрофам, які загрожують міжнародній екологічній безпеці та безпеці людства у світі. У статті аналізуються існуючі міжнародно-правові документи, які безпосереднього закріплюють положення щодо охорони довкілля під час військових конфліктів. Проаналізовано важливі аспекти правової практики та висунуті пропозиції щодо покращення існуючих механізмів притягнення до відповідальності та захисту довкілля під час збройних конфліктів. Вивчаються питання необхідності створення спеціального правового механізму для забезпечення екологічної безпеки, а також розширення меж застосування вже існуючих норм міжнародного права. Зокрема, серед таких документів можна назвати: Римський статут 1998 р., Всесвітня хартія природи 1982 р., Стокгольмська декларація 1972 р., Конвенція про заборону військового чи будь-якого іншого ворожого використання засобів впливу на природне середовище 1977 р., Додатковий протокол до Женевських конвенцій від 1949 р., що стосуються захисту жертв міжнародних збройних конфліктів та Гаазька конвенція 1907 р. та Конвенція про захист середовища від наслідків війни 1976 р. тощо. Окрему увагу приділено саме Римському Статуту 1972 р., який в рамках міжнародного права, регулює та закріплює положення, які безпосередньо стосуються захисту навколишнього середовища під час збройних конфліктів. Проаналізовано роль Міжнародного кримінального суду (МКС) у цій сфері. Стаття присвячена необхідності удосконалення національних та міжнародно-правових засад ефективного врегулювання екологічних питань під час збройних конфліктів. Проаналізовано механізм правового регулювання виплати репарацій Україні внаслідок екоциду, на прикладі вже існуючих кейсів.

Ключові слова: міжнародно-екологічне право, екологічні злочини, військова агресія, екоцид, охорона довкілля під час збройних конфліктів.

Introduction. Aggravation of geopolitical disputes and armed conflicts endanger natural ecosystems, which can lead to serious consequences for the environment and human health. Environmental violations rarely become the subject of consideration in international and national courts. This lack of attention is due to a lack of prioritization rather than a lack of sufficient evidence or an adequate legal framework. Ukraine has the opportunity to set a precedent for bringing to justice those responsible for the destruction of the environment during the military conflict.

Organizations such as Amnesty International, the Center for Humanitarian Dialogue, Geneva Center for Security Sector Governance (DCAF), the Geneva Center for Security Policy and the Geneva Platform for Peacebuilding are active in addressing the environmental consequences of armed conflicts and promoting peacebuilding efforts related to the environment.

Recognizing the importance of environmental protection during and after armed conflict, the International Law Commission (ILC) adopted 27 draft principles in this area (PERAC) [1]. These principles aim to prevent environmental damage during conflicts and facilitate post-conflict recovery. Soon, the UN General Assembly will vote on their adoption. Various organizations in Geneva are actively working to eliminate the environmental consequences of armed conflicts. Amnesty International focuses on violent environmental conflicts and the disasters that result from conflicts. The Center for Humanitarian Dialogue aims to prevent and resolve armed conflicts by eliminating environmental risks to human security and the depletion of natural resources.

During the presentation of a scientific study entitled "Environmental Impact of the Russia-Ukraine War", which was presented at the Ukraine Media Center, Oleksandr Krasnolutskyi,

First Deputy Minister of Environmental Protection and Natural Resources, said that since the beginning of the full-scale invasion, a damage to the environment assessment has been actively conducted [22]. According to him, to date, the amount of these losses exceeds 2 trillion hryvnias, while more than 2,500 cases of impact on the natural environment have been documented. This includes the destruction of nature reserves, the pollution of water bodies, the mining of agricultural fields, and the burning of forests [21].

Literature Review. The increase in the global level of armed conflicts and their impact on ecosystems and the global ecological state have become the object of extensive research and discussion among scientists and experts. Scientists who studied the issue of ecocide and the impact of armed conflicts on the environment: T. Koivurova, K. Halm, M. Bote, D. Lawrence, Pereira P., V. I. Andreytsev. Separate problems in the field of international environmental law and its relationship with humanitarian law and responsibility for environmental crimes, were studied in the scientific literature by the following authors: D. Cameron, L. Malone, M. Jakobsson, D. French, V. M. Kirichko. Despite the extensive number of scientific works devoted to the study of this problem, including the above-mentioned scientists, the existing studies leave strategies for solving the problem in the conditions of military conflict not fully defined. Further research should also take into account not only specific cases of the impact of military conflict on environmental processes, but also possible strategies for the prevention and elimination of environmental damage in the context of military operations. Therefore, it is necessary to conduct additional studies taking into account the military context in order to more fully reveal the ways of solving the aftermentioned problems and achieve a deeper understanding of the impact of military actions on the ecological situation.

Discussion. The legislative background surrounding the protection of the environment during armed conflict has experienced a period of lull since the adoption of Additional Protocol I in 1977 [3]. However, the urgency of solving this issue arose again during the Persian Gulf War of 1990/1991, marked by oil spills in the Persian Gulf and the destruction of oil facilities. Since then, the debate has focused on the interpretation and effectiveness of Articles 35 (3) and 55 of Additional Protocol I [3]. It has also raised the question of the need and desirability of new international legislation to protect the environment in times of military conflicts. After the Vietnam War (1955–1975), two important legal changes took place.

The 1977 Convention on the Prohibition of Military or Other Hostile Uses of Means of Influence on the Environment (ENMOD Convention) prohibits the use of means of influence on the environment during armed conflicts if they result in widespread, lasting, or serious consequences for other states. This was adopted in two ways.

Firstly, the United Nations Convention on the Prohibition of Military or Any Other Hostile Use of Means of Influence on the Environment (ENMOD) was adopted. ENMOD prohibits the hostile use of techniques that alter the environment with “widespread, long-lasting, or serious consequences”.

Secondly, Additional Protocol I (API) was amended to include provisions prohibiting methods or means intended or expected to cause “widespread, lasting, and serious damage to the natural environment” during wartime.

These two treaties set a very high threshold for violations. For military action to violate these provisions, all three elements of harm must be met – widespread, long-lasting, and serious.

One of the most notable cases of environmental destruction reaching this threshold occurred when Iraqi forces set fire to Kuwait’s oil fields during the 1991 Gulf War [13].

The destruction of the Kakhovskaya Dam on Dnipro river in 2023 by Russian forces raises significant questions

about the international legal framework and the responsibility of state actors. Although the International Criminal Court (ICC) currently has limited jurisdiction over war crimes, including genocide, crimes against humanity, war crimes, and crimes of aggression, there is growing recognition of the need to address environmental crimes such as ecocide. Proposals have been made for a fifth crime of ecocide under the Rome Statute of the ICC aimed at establishing liability for serious damage to the environment caused by human actions. After the Kakhovka Dam disaster, the European Union also took steps towards ecocide legislation.

The UN International Law Commission recognizes that environmental damage resulting from war crimes is compensable, even if the damage has no market value. Methods for assessing and monetizing environmental damage can be complex, but precedents such as the United Nations Compensation Commission’s assessment of environmental damage during the wars in Iraq and Kuwait provide guidance. In January 2022 the final payment of compensation, after more than 31 years, was made for losses and damage suffered as a direct result of Iraq’s invasion and occupation of Kuwait. This was mandated by the the Compensation Commission’s Governing, a subsidiary organ of the UN Security Council created in 1991 specifically for this purpose. In the end, 1.5 million claimants were awarded US\$52.4 billion in compensation [4].

Satellite monitoring systems, such as NASA’s Earth Observing System, can play a critical role in monitoring and measuring environmental damage, enabling assessment of environmental damage and reparations [15]. Moreover, the Ministry of Environmental Protection and Natural Resources of Ukraine, with the support of the Ministry of Digital Transformation of Ukraine and partners, developed a web resource and mobile application EcoZagroza – Ukrainians can report all the facts of environmental crimes against the environment, which they witnessed. For example, the burning of military equipment; forest fires; spillage of petroleum products or poisonous substances into the soil or water body; emission of poisonous substances (chlorine, ammonia, hydrogen sulfide, hydrocyanic acid, nitric acid) into the air, etc. [23].

In the early morning of June 6, 2023, one of the largest in Europe, the Kakhovka Dam, was destroyed, which led to a catastrophic flood in the region. The dam, which provided drinking water to at least 700,000 people, served as a vital source of water, energy, and irrigation for Ukraine. The destruction of the dam led to terrible consequences, including the devastation of numerous villages and the flooding of thousands of hectares of agricultural land [18].

In a June 8 address to the world’s environmental protection community, President Volodymyr Zelensky said to the world’s community, that Russia needs to bear full responsibility for the Kakhovka dam destruction and the ecocide it caused.

The ecological consequences of the destruction of the Kakhov Dam are far-reaching and devastating. The dam’s reservoir has played a critical role in maintaining ecosystems and biodiversity in the region. The flood led to habitat loss and degradation of numerous aquatic species. Whole ecosystems are threatened with destruction, which will affect the Black Sea Biosphere Reserve and other protected areas. The release of contaminated water and pollutants from the collapsed dam further exacerbated the environmental damage, posing risks to human and animal health. The long-term impact on the environment and natural resources is expected to be severe and irreversible [17].

In accordance with the Methodology for calculating losses caused to fisheries as a result of violation of the rules of fishing and protection of aquatic living resources, approved by the joint order of the Ministry of Environmental Protection of Ukraine and the Ministry of Agrarian Policy [20], according to the information provided by the State Agency for Recreational and Fisheries [19] in the Dnipropetrovsk region, on 07.06.2023, a mass death of aquatic biological resources was

recorded, namely, silver crucian carp, as a result of a rapid decrease in the water level (8-10 cm. per hour) in the water area of the Maryan Bay of the Kakhovskiy Reservoir. The amount of total damages due to the death of aquatic biological resources in the water area of the Maryan Bay of the Kakhovskiy Reservoir amounts to UAH 7,612,920.00 [18]. The explosion of the Kakhovskaya HPP caused the flooding of almost 55,000 hectares of forest in the Kherson region, which will lead to a decrease in the absorption of greenhouse gases by forests. In addition, the decrease in the area of the water table and the violation of the hydrological state of wetlands will lead to an increase in greenhouse gas emissions. In the medium-term perspective, the reduction of the area of the water table can also lead to the formation of a desert with all the climatic consequences, such as a decrease in precipitation, dust storms, a rise in temperature in the region and an increase in the risks of drought in the fields of central and southern Ukraine. According to the information of the State Environmental Inspection [14] of Ukraine as a result of the armed aggression of the Russian Federation in connection with the explosion of the Kakhovskaya HPP on 06.06.2023 is – UAH 55,635,240,715.

As a result of the Russian occupiers blowing up the Kakhovskaya HPP dam and the disappearance of the Kakhovskaya reservoir, new threats to nuclear and radiation safety at the industrial site of the Zaporizhzhya NPP have arisen [9]. In November 2023, IAEA Director General Grossi made a statement – “Today’s events once again vividly demonstrate the extremely fragile situation with nuclear and physical security at the Zaporizhzhya NPP. Europe’s largest nuclear power plant, located on the front lines, continues to face many potential threats as a result of this tragic war” [7]. The area of the potential ignition zone could be up to 30 thousand square kilometers. The greatest threat of pollution exists for the Zaporizhzhya and Kherson regions, the Dnipro River downstream, the Black Sea, and the Mediterranean Sea. However, the consequences of a possible catastrophe at the Zaporizhzhya NPP will affect not only the territory of Ukraine but dependent on wind other countries as well, in particular: Russia and Belarus. There is also a risk to other nearby European countries such as Turkey, Greece, Romania, Bulgaria, and Moldova.

Ukraine signed the Rome Statute on January 20, 2000, but the Verkhovna Rada, but the ratification of the Rome Statute, the state becomes a member of the International Criminal Court, and crimes committed by its citizens or committed on its territory are prosecuted in The Hague.

As of November 2023, the Rome Statute was signed by 137 states (Ukraine on January 20, 2000), but ratified by 124 states (Ukraine did not ratify), according to the number of countries that have signed and ratified the statute, The Rome Statute should be amended to include ecocide as a war crime, creating a preventive effect on future conflicts and emphasizing the importance of accounting for environmental damage in damage assessment and compensation. Within the framework of international law, there is a single ecocentric provision that directly addresses the protection of the environment during armed conflicts: Article 8(2)(b)(iv) of the Rome Statute (RS) [2]. This article prohibits the deliberate conduct of attacks with the expectation that such attacks will cause widespread, lasting, and severe damage to the natural environment that is clearly disproportionate to the expected military advantage. This provision is similar to Articles 35 and 55 of Additional Protocol I to the Geneva Conventions (AP I) [3] and Article 1 of the Convention on the Prohibition of Military or Any Hostile Use of Environmental Methods (ENMOD) [10]. However, Article 8(2)(b)(iv) RS introduces the cumulative criteria of extensive, long-term, and serious damage, a feature absent from Article 1 ENMOD [16].

The interpretation of these criteria is important for understanding the requirements of Article 8(2)(b)(iv) RS. Although the AP I draft defines “long-term” as damage lasting decades,

the text itself does not provide clear definitions [16]. ENMOD’s understanding proposes a definition of “widespread” as covering several hundred square kilometers and “severe” as denoting significant disruption or damage to human life, natural and economic resources, or other assets. The lack of clarity in the RS and related jurisprudence creates difficulties for the accused in proving real damage.

Even if the criteria of Article 8(2)(b)(iv) of the RS were met, the provision requires a proportionality test to assess whether the environmental damage is “manifestly excessive” in relation to the expected military advantage. Currently, there are no established standards in international criminal law to facilitate such an assessment, further complicating environmental protection under Article 8 RS.

Among the crimes listed in Article 7(2) of the RS, the crime of “forced displacement of population” is relevant to the destruction of Novaya Kakhovka, especially given that the destruction of the environment can be considered a forced act leading to displacement. More than 2,700 people have already left the area after the dam was destroyed, which shows that this crime has been committed.

According to the Rome Statute, a characteristic feature of ecocide as an international crime is its connection exclusively with the conduct of hostilities, and this rule is applied in the criminal codes of most countries of the world [2].

In addition to existing definitions, new data and aspects that can be added to the concept of ecocide should take into account current environmental challenges, such as climate change, loss of biodiversity, and other forms of non-renewable use of natural resources. The Additional Protocol to the Geneva Conventions for the Protection of Victims of International Armed Conflicts of 1977 (Protocol I) is particularly relevant. Article 35(3) prohibits the use of methods or means of warfare which may cause significant, lasting, and serious damage to the natural environment. Article 55 imposes a similar duty on states. To invoke international responsibility, environmental damage must meet a cumulative standard of widespread, long-term, and severe.

In the context of the national legislation of Ukraine, Article 441, the term “ecocide” means “mass destruction of flora or fauna, poisoning of the atmosphere or water resources, as well as committing other actions that can lead to an ecological disaster, and these actions are punishable in the form of deprivation of liberty for a term of eight to fifteen years” [5].

Combining Article 441 of the Criminal Code of Ukraine [5] “Ecocide” with the provisions of international humanitarian law would be the most effective approach to combating environmental crimes in Ukraine. This could lead to the second international example of bringing an aggressor country to justice for crimes against the environment, after Kuwait.

There is a need to create an international legal mechanism to ensure environmental safety or to expand the scope of application of already existing norms of international law. Creation on the basis of the United Nations of a new specialized body and Program on environmental protection during armed conflicts, aimed at solving the issue of prosecution for crimes against the environment and minimizing the consequences of environmental damage in the conditions of armed conflicts. The development of recommendations, protocols, conventions and other international treaties, the signing of which will impose on the participating countries the obligation to act as a defender of violated environmental rights, and to take all necessary measures to stop and eliminate environmental damage, as well as to bring the aggressor country or countries to justice. The Environment Program can serve as a prototype for the new Environmental Protection Program during armed conflicts.

International criminal responsibility for ecocide is more relevant than ever. The concept of “ecocide” should be carefully formulated and potentially included in a new European

Union Program on environmental protection during armed conflicts. The Rome Statute should be amended to include ecocide as a war crime, creating a preventive effect on future conflicts and emphasizing the importance of accounting for environmental damage in damage assessment and compensation.

The damage caused to the environment by the long conflict between Ukraine and Russia has been confirmed by a large amount of evidence from international governmental and non-governmental researches, media reports, and scientific literature. These sources provide a comprehensive basis for legal proceedings at both the national and international levels.

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