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ARTÍCULO DE INVESTIGACIÓN

Impacto social de la regulación jurídica internacional de la seguridad medioambiental durante los conflictos armados

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Juliia Krasnova*, Viktor Ladychenko**, Oleksandr Makarenko***, Serhii Kidalov**** y Stanislav Yankovskyi*****

Resumen

El objetivo del artículo es analizar los documentos jurídicos internacionales sobre la posibilidad de su aplicación con el fin de garantizar la seguridad ambiental y la seguridad social, principalmente la vida y la salud humana, durante los conflictos armados. Para lograr este propósito se utilizaron métodos de investigación científica generales y especiales, en particular métodos histórico-jurídicos, dialécticos, sistemáticos y jurídicos comparados. La guerra es el fenómeno más terrible de las relaciones humanas y tiene una enorme influencia social. Las razones de su aparición son bastante diversas: es una reacción a los insultos y el deseo de gobernar a otros pueblos, el deseo de arrebatar valiosos recursos naturales en los que otro país es rico, etc. Pero cualquiera que sea la causa de la guerra, no justifica las consecuencias devastadoras que trae la matanza de un gran número de personas, la destrucción de propiedades, infraestructuras, economías y el medio ambiente de los países. Sin embargo, sabiendo y comprendiendo todo esto, la sociedad no saca conclusiones, sino que crea cada vez más conflictos. Se concluye que garantizar la seguridad ambiental durante los conflictos armados tiene un impacto social a través de la protección de la salud y la vida humanas. Las principales disposiciones y resultados del artículo se formulan sobre la base del análisis de las normas de la legislación nacional e internacional.

Palabras clave: impacto social, seguridad ambiental, daños ambientales, protección ambiental durante conflictos armados.

Abstract

Social impact of international legal regulation of environmental safety during armed conflicts

The purpose of the article is to analyze international legal documents regarding the possibility of their application for the purpose of insuring environmental safety and social safety, mainly human life and health, during armed conflict. To achieve this purpose, general and special scientific research methods were used, in particular historical-legal, dialectical, systematic, comparative legal methods. War is the most terrible phenomenon in human relations, which has huge social influence. The reasons for its occurrence are quite diverse - it is a reaction to insults, and the desire to rule over other peoples, the desire to take away valuable natural resources that another country is rich in, etc. But

whatever the cause of the war, it does not justify the devastating consequences it brings - the killing of a large number of people, the destruction of property, infrastructure, economies and the environment of countries. However, knowing and understanding all this, society does not draw conclusions, but creates new and new conflicts. Insuring environmental safety during armed conflicts have social impact through protection of human health and human life. The main provisions and results of the article are formulated on the basis of the analysis of the norms of international and national legislation.

Keywords: social impact, social rights, environmental safety, environmental damage, environmental protection during armed conflict.

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*State Organization "V. Mamutov Institute of Economic and Legal Research of the National Academy of Sciences of Ukraine" E-mail: krasnova_yulya@ukr.net ORCID iD: https://orcid.org/0000-0001-7898-9603
**National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine. E-mail: ndi_land_law@ukr.net ORCID iD: https://orcid.org/0000-0003-2929-1959
***Donetsk State University of Internal Affairs, Kryvyi Rih, Ukraine. E-mail: a.y.makarenko@gmail.com . ORCID iD: https://orcid.org/0000-0002-3020-0658
****National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine. E-mail: kidalov_s@nubip.edu.ua . ORCID iD: https://orcid.org/0000-0001-5743-6655
*****National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine. E-mail: stanyanko7@gmail.com . ORCID iD: https://orcid.org/0009-0006-5082-8158

1.- Introduction

Take, for example, the Russian Federation, the history of which shows that the entire time of its existence has been accompanied by various wars. In particular, only the period from the beginning of the 90s to the present includes the war with Georgia, as a result of which Abkhazia was annexed, the Transnistrian conflict, the Chechen wars, the war in Dagestan, another war with Georgia in 2008, the armed conflict in the Northern Caucasus, Russia's intervention in Syria and the Russian-Ukrainian war, which has been going on since 2014 until now. All of them are connected by one thing - Russia's desire to dominate the territories of its neighboring countries and the forceful imposition of the idea of restoring the Soviet Union.

And how much damage was caused to the affected countries? And how it affected the social sphere including human life and health? Thus, during the Russian-Ukrainian war, the economy of Ukraine has already suffered losses in the amount of about 600 billion dollars. This includes the destruction of the housing stock, the destruction of enterprises, plants and factories, retail outlets, the destruction or damage of transport infrastructure and vehicles, etc. (Financial club, 2023). And according to the calculations of the Ministry of Environmental Protection and Natural Resources of Ukraine, the amount of damage caused by the Russian attack, as of June 3, 2022, exceeds UAH 200 billion (Damage, 2023).

This includes the seizure of all hydrotechnical structures of the North Crimean Canal, which regulated the water supply of water from the Kakhovsky Reservoir of the lower basin of the Dnipro River to the Crimean Peninsula and its partial depressurization; and

the seizure of two nuclear power plants, one of which is under the control of the occupiers; and flooding of mines in Donetsk and Luhansk regions; destruction of a significant number of environmentally hazardous industrial facilities; mining of natural and agricultural landscapes; mass cutting and burning of forest and agricultural lands (All damage, 2023); extermination and theft of grain crops; killing animals; destruction of living aquatic bioresources (Tens of thousands, 2023); intimidation in the use of nuclear weapons (Golovko, 2017; Dubchak, 2020; Gulac, 2019; Zicha, 2021; Vashchenko, 2021) etc.

According to the Ministry of Environmental Protection and Natural Resources of Ukraine, as of May 11, 2022, the Russian Federation committed 231 environmental crimes on the territory of Ukraine and in the Black Sea. The largest number of cases of ecocide were found in Kyiv region - 34, Donetsk region - 27 and Dnipropetrovsk region - 22. Atmospheric air pollution is also impressive, when during the half year of the war in Ukraine in 2022, emissions of toxic substances into the atmosphere amounted to 46 million tons, in contrast to 2021, in which about 2 tons of such substances were released for the whole year (Melnyk, 2023; Golovko, 2023).

Given that the topic of damage caused by Russian aggression is extremely broad, the purpose of this article will be a legal analysis of the environmental and social risks of Russian military aggression and the environmental and social damage caused by them, as well as options for its compensation.

2.- The aim of the study, Materials and methods

The purpose of this scientific article is to analyze international legal documents regarding the possibility of their application for the purpose of insuring social and environmental safety during armed conflict.

It should be noted that the raised topic is not new either for science or for practice. Scientists from all branches of science – social, military, environmental, medical, technical, technological, economic, historical, legal, etc. - are dealing with these problems for many years. Especially active - starting from the second half of the 20th century.

Souchen Alex explores a number of social and environmental issues caused by military conflicts, including: the impact of underwater munitions on the marine environment, and the environmental histories of the First World War (Souchen, 2021),

Cymie R. Payne analyzed the peculiarities of legal responsibility for damage to the environment and social sphere including human life and health and the role of the UN Compensation Commission during the Persian Gulf War in 1990-1991 in solving this issue; bringing international responsibility for environmental crimes caused by the military conflict between Iraq and Kuwait (Cymie, 2017).

Arie Afriansyah, investigated the issue of responsibility of states for environmental damage and human life and health during international military conflict Post the UNCC (Afriansyah, 2013).

The methodological basis of the research is a set of methods and techniques of scientific knowledge, which made it possible to carry out a comprehensive and objective analysis of its subject. In the course of the research, philosophical and worldview, general scientific and special scientific methods were used.

The application of the dialectical method made it possible to investigate the development trends of international legal regulation of social and environmental security during armed conflicts in its relationship with political, technical, social and legal factors of the development of society. The formal-logical method contributed to the definition of system-forming concepts of international legal regulation of social and environmental security during armed conflicts, such as: "environmental security during armed conflicts", "social risks of armed conflicts", "ecological risks of armed conflicts", "legal provision of environmental security during armed conflicts", "compensation for environmental damage caused by military aggression". The method of analysis was applied in the study of scientific works of legal scientists on the topic of research, as well as in the establishment of conflicts and gaps in normative legal acts regulating relations in the field of international legal regulation of social and environmental security during armed conflicts. The synthesis method helped to identify the main areas of international legal regulation of social and environmental security during armed conflicts, to clarify their content and essence. The application of the system-structural method made it possible to investigate the mechanism of international legal regulation of environmental security during armed conflicts and to reveal its structure and content.

The historical-legal method is the basis of the study of the process of formation at the international level of norms and relations to ensure social and environmental safety during armed conflicts. The formal legal method contributed to clarifying the content of the legal norms of the relevant legislation and developing proposals for its improvement.

3.Results and Discussion

Issues of legal protection of social and environmental security at the international and national levels are not new for modern society. A lot of attention is paid to them both in international documents and in national legislation, as well as in environmental and legal literature.

Today, the issues of legal protection of social and environmental safety extend to various spheres of social activity that pose a danger to the environment: industry, transport, agriculture, etc. Among these types of activity, military activity can be

distinguished (Article 58 of the Law of Ukraine "On Protection of the Natural Environment").

However, one should pay attention to the fact that the provisions of the mentioned article mainly refer to the activity of stationary military and defense facilities, as well as the deployment of military units, the conduct of military exercises, maneuvers, the movement of troops and military equipment, which includes rather after all, the issue of legal provision of social and environmental safety in peacetime, not wartime.

How to be in a situation when a war started by a neighboring aggressor country has been going on in the country for almost 10 years? What legal mechanisms should be included for post-war prosecution of war crimes against environmental security?

We believe that, first of all, legislation and science should put an end to approaches to defining the concept of social and environmental safety and its limits - whether it is a set of legal means and methods that ensure the safe existence of a person in the environment, or whether it is a set of such legal means and methods, which ensure the safety of the natural resources and objects themselves, and hence the environmental safety of man? Secondly, there is a need to analyze the international experience of legal regulation of social and environmental security in wartime and legal mechanisms for compensation of social and environmental damage caused by military aggression.

Solving these issues will make it possible to determine the effectiveness of legal measures taken in this area.

The existence of humanity is conditioned by material, biological (physiological) and spiritual (aesthetic) needs, which were satisfied by the use of natural resources, the preservation of natural components and the protection of a person from an adverse environment. For millennia, mankind has sought to live in harmony with nature, so for a long time the needs for using natural resources were minimal and limited to food and clothing. At the same time, the harmonious coexistence of humanity with nature largely depended on the understanding of the laws of nature, their manifestation and influence on the state of existence of the material world.

After all, тature itself constantly contains a whole series of dangers associated with natural processes of space (the fall of a large space body, solar and cosmic radiation), lithospheric (earthquakes, volcanic eruptions, landslides, mountain collapses, rock emissions, karst sinkholes, soil erosion, etc.), hydrospheric (tsunamis, floods, snow avalanches, ice jams, storms, etc.), atmospheric (hurricanes, downpours, hail, fog, lightning, ice, etc.), biospheric (dangerous plants, animals, fish, insects, fungi, bacteria, viruses) nature or several processes at the same time and which, continuously changing, develop in the natural environment under the influence of solar and internal energy of the Earth and which occur independently of human participation.

Therefore, the adaptation of mankind to dangerous natural living conditions became the basis of its existence and impacts social life. Therefore, on the basis of social ideas and beliefs existing throughout the history of human development (Lukyantsev, 2002), religious ideas, philosophical and scientific concepts the security nature of the relationship between man and nature began to be reflected, depending on how a person observes the laws of nature, which are equated with the laws of God.

During the periods of social development, humanity passed the so-called collecting-appropriating, production-productive and innovative-constructivist types of nature use, within which there was a gradual negative impact on nature and its resources due to the increase in population, needs for certain natural resources, production waste, which required the transfer of various natural resources into ownership or use. Therefore, legal requirements regarding the protection of air, water, land, and public places from pollution arise objectively and became the basis for the formation of sanitary legislation, and later - environmental and social legislation (Malyshko, 1982).

Analyzing the international situation at that time, we can say that the main prerequisite for the introduction of an environmental component into the content of national security was the liquidation of the US nuclear monopoly in the early 1950s and the nuclear missile parity between the USSR and the USA in the 1970s. With its establishment came the era of military detente, during which agreements were concluded between the USSR and the USA on measures to reduce the danger of nuclear war (1971), the Treaty on Anti-Missile Defense (1972), the Treaty on the Prevention of Nuclear War (1973) and other (Turaev, 2002).

The shift towards an expanded interpretation of the concept of US national security took place in 1974 after General M. Taylor published the publication "Legitimate Requirements of National Security", where the author first emphasized that the main threats to US national security are developing in the non-military sphere. Three years later, the president of the World Dotch Institute, L. Brown, in the article "Reviewing the Definition of National Security" singled out among the most important threats of a non-military nature environmental threats (soil erosion, reduction of forest areas and climate change) (Shmandiy, 2013).

In the same period, under the leadership of the American scientist D. Meadows, a number of scientific studies were conducted, which revealed the fact that the excessive use of non-renewable natural resources on earth by the existing technologies of extraction and processing, as well as the speed of their consumption, will lead to their depletion already at the beginning 21st century, and therefore to new military conflicts (Meadows, 1972).

This scientific approach drew attention to environmental problems of politicians

and the public as a whole, including at the international level (Chapter 11 "Peace, Security, Development and Environment" of the report of the International Commission on Environment and Development "Our Common Future"), as a result of which it was pointed out: the growing shortage of natural resources due to their irrational use; aggravation of food insecurity as a result of a decrease in the quantity and quality of food products, which directly depends on the quality of the environment in which they are grown and produced; climate change as a result of excessive technogenic load on the environment and its impact on Arctic and Antarctic glaciers; excessive mining and waste generation; pollution of lands, waters of the World Ocean and atmosphere; disappearance and depletion of biological resources; use of GMOs; emergence of military conflicts over natural resources, etc.

Thus, the publication of a number of scientific articles, as well as the results of numerous discussions led to the inclusion of environmental security issues in the concept of US national security. Accordingly, this required the creation of a state system of environmental security, which guarantees the protection of people and the environment from anthropogenic factors.

The main arguments that formed the basis in favor of raising the status of environmental security to the level of higher national interests include: 1) the global environmental crisis, associated with the increase in loads on the life-support systems and reproductive natural resources of the planet, with the degradation of the environment and the undermining of the stability of the biosphere, is as serious a threat as traditional threats of a military nature; 2) the environmental crisis threatens not only the dignified human existence, but also life itself; 3) for the state, the environmental crisis is associated with a reduction in the freedom of political choice, which is due to the cross-border nature of environmental problems; 4) the aggravation of the ecological situation in various regions of the world is the cause of social and political instability, interstate contradictions and violent conflicts. It was these positions that forced to more clearly define the object of non-force threats and the non-military goal of the national security strategy, such as the possibility of improving the quality of life of the population, which is achieved by ecologically sustainable development (Shmandiy, 2013).

In this connection, the issues of ecological security of humanity become the most important part of the agendas of international forums. In 1970, a special international UNESCO program "Man and the Biosphere" was adopted; in 1972, representatives of 113 countries at the First World Meeting on Environmental Problems (Stockholm) defined the priority goal of humanity as "Protection and improvement of the state of the environment for current and future generations". In 1972, the UN Environment and Development Program (UNEP) was founded, etc.

Instead, a number of industrial accidents of the second half of the 20th century. forced the formation of a new direction of environmental relations at the international

level - industrial safety. Such accidents were, in particular, accidents in 1976 in the Italian city of Seveso, where a cloud of dioxin was released; nuclear accident on Three Mile Island in the USA in 1979; in 1984 in the city of Bhopal (India), where as a result of an accident at a chemical plant, a large number of people died and damage to the surrounding natural environment was caused over long distances; in 1986 at the Chernobyl nuclear power plant, the disaster at which gained international attention.

In this regard, at the international level, the question of the expediency of normative and legal regulation of environmental safety issues was raised. In particular, in the relevant decision of the UN General Assembly ща January 1, 1982, through the adoption of the World Charter of Nature, paragraph 11 of which states that activities that can have a negative impact on nature should be controlled, and that technology should be used that can reduce the size of the danger or other harmful consequences for nature.

At the European level, Directive 82/501/EEC of June 24, 1982 on the threat of major accidents involving dangerous substances (Seveso) is currently being adopted, which provided for strict measures to control the activities of industrial enterprises and which became the basis for the adoption in 1992 year of the Convention on the Transboundary Impact of Industrial Accidents, which provides for a system of measures for the safe operation of enterprises with the aim of "preventing significant harmful effects of industrial accidents on people and the environment."

In the same period, at the meeting of the Permanent Consultative Committee of the member countries of the Warsaw Pact Organization (1987, May), the countries of the socialist camp put forward the basic provisions of the concept of international environmental security as a component of the comprehensive system of international security, which were formulated in the Communiqué of the Berlin Conference. The relationship between environmental and international security is convincingly shown in the article by M.S. Gorbachev "Reality and guarantees of safe peace" (Gorbachev, 1987).

Positive trends in the field of international environmental security were also confirmed in the Memorandum of Socialist Countries distributed at the 42nd session of the UN General Assembly, as well as in the draft resolution "International Environmental Security" (October 30, 1987), presented at the session by the delegations of Czechoslovakia and Ukrainian SSR (International environmental security: draft resolution, 1987).

The concept of international environmental security received further development at the Meeting of the Political Consultative Committee of the Warsaw Pact states (Warsaw, 1988, June).

At this meeting, an important document on ensuring environmental security was adopted: "Consequences of the arms race for the environment and other aspects of environmental security" (Consequences of the disarmament race for the environment, 1987), which defines the basics of the concept of international environmental safety, designed to contribute to the sustainable and safe development of all states and the creation of favorable conditions for the life of every nation and every person. It is also important to note the program of urgent actions to ensure environmental security based on open international cooperation developed by the Warsaw Pact states, which serves as an example of new environmental thinking in international politics.

At the same time, environmental safety received a double meaning of its definition. On the one hand, environmental safety is, in fact, a favorable state of the environment, which is ensured by general environmental protection measures aimed at all subjects of modern society. On the other hand, it is the absence of the risk of dangerous situations at industrial and other enterprises, during the implementation of certain types of activities that threaten the destruction of ecosystems, causing significant property and environmental damage and, of course, which are dangerous for human life and health.

Such trends in the development of international law also influenced the formation of the legal category "environmental safety" at the domestic level, which also received a double interpretation. Thus, on the territory of modern Ukraine, the term "ecological safety" was used for the first time in the resolution of the Central Committee of the CPSU and the Council of Ministers of the USSR "On the radical restructuring of nature protection in the country" of January 7, 1988 (On the fundamental restructuring of nature protection, 1988), in which, in particular, it was emphasized that "issues of nature protection are of great social importance, political and organizational lethargy, lack of initiative of state administration bodies, enterprises, institutions and organizations are unacceptable in their solution. The struggle for environmental safety on Earth should be considered one of the most responsible and noble tasks of the Soviet people."

Subsequently, environmental security was defined as an independent direction of national policy, in particular in the Declaration on State Sovereignty of Ukraine of July 16, 1990. In this political document, environmental safety is presented as a characteristic of the state of Ukraine: to independently establish the order of organization of nature protection on the territory of the Republic and the order of use of natural resources; to have its own national commission for radiation protection of the population; have the right to prohibit the construction and stop the operation of any enterprises, institutions, organizations and other objects that cause a threat to environmental safety; to take care of the ecological safety of citizens, the gene pool of the people, its young generation; have the right to compensation for damages caused to Ukraine's ecology by the actions of the Union bodies.

And already in the Law of Ukraine "On Protection of the Natural Environment" of June 25, 1991, environmental safety is considered in several meanings: 1) as the intention to ensure the ecological safety of human activities (Part 1 of the Preamble of the Law); 2) as a component of the state's environmental policy aimed at preserving the environment safe for the existence of living and non-living nature, protecting the life and health of the population from the negative impact caused by environmental pollution (Part 2 of the Preamble of the Law); 3) as one of the tasks of the legislation on environmental protection (Article 1 of the Law); 4) as the main principle of environmental protection (paragraphs a and b of Article 3 of the Law); 5) as a subjective environmental right of citizens (clause a, Article 9 of the Law); 6) as a duty of citizens in the field of environmental protection (paragraph b of Article 12 of the Law); 7) as the goal of management in the field of environmental protection (part 5, p. 16 of the Law); 8) as a separate area of environmental protection activity (Chapter XI of the Law). However, already in Art. 50 of the said Law, environmental safety is defined as the state of the natural environment, which ensures the prevention of the deterioration of the ecological situation and the occurrence of danger to human health.

In turn, the Constitution of Ukraine of June 28, 1996 defines ensuring environmental security and maintaining ecological balance on the territory of Ukraine as the duty of the state (Article 16) and guarantees everyone the right to an environment safe for life and health and to compensation for violations of this right damage (Article 50).

In today's conditions, wars have become an environmental disaster of a global scale. Large areas of land resources, forests, and water areas of the World Ocean, which are equal to the areas of some European countries, are taken out of use by military facilities. In addition, the militaristic economy consumes a huge amount of mineral raw materials, energy, fuel, and metals. It is also necessary to take into account the damage caused by the storage of radioactive production waste, spent nuclear reactors from nuclear power plants, nuclear ships, submarines, etc.

Large test sites were created for testing nuclear weapons. There are five of them in the whole world - in the Nevada desert (USA), on the Novaya Zemlya archipelago (Russia), in Kazakhstan (Semipalatinsk polygon), on the Mururoa atoll (France) and in the Lobnor desert (China). More than 2,000 nuclear explosions of various powers were conducted at these test sites, including 501 nuclear explosions in the atmosphere. Tests of nuclear weapons led to the spread of nuclear explosion products throughout the earth. These products fell into the soil and groundwater with precipitation, and then into human food (Ryabova, 2012).

Geophysical studies show that nuclear explosions can cause earthquakes due to damage to the earth's crust, which leads to the formation of large tectonic cracks. An example can be the testing of a nuclear charge by the French at Mururoa Atoll and the

associated strong earthquake in Mexico in 1985 p., which occurred a few minutes after the nuclear explosion.

In addition, there are also chemical weapons, as well as bacteriological ones, the area of effect of which is much larger than nuclear or chemical ones. Therefore, the need to constantly search for new measures to reduce the ecological disaster caused by military conflicts has been going on for a long time.

Today, on the territory of Ukraine, in addition to the above-mentioned environmental and social damage caused by the occupier, there is a significant number of objects of military activity - military bases, arsenal towns, ammunition depots, storage facilities for fuel and lubricants and rocket fuel, aviation and military training grounds, tank depots, landfills and disposal sites for hazardous materials. A significant part of these objects creates a real and potential danger for the population and the environment, pollutes the environment with chemical substances, in particular heavy metals, increases the radiation background, which leads to the degradation of natural complexes.

Environmental pollution with solid waste is increasing. The problem is particularly acute in military towns and garrisons, where arbitrary landfills of household waste are often organized in violation of household requirements. The impact of the negative activities of military personnel on the natural environment worsens the ecological situation. Thus, many factors of illegal deforestation, uncontrolled water use, oil pollution of land, surface and groundwater are observed. A tense situation has developed in the areas where warehouses and bases of fuel and lubricants of the Armed Forces are located, caused by large-scale pollution of the environment by oil products. Due to unresolved organizational issues and lack of funding, environmental monitoring of contaminated areas is not carried out, cleaning works are suspended, which negatively affects the safety of the population's daily life.

The ships and vessels of the Naval Forces were built according to state standards without taking into account current environmental standards and were not equipped with systems for cleaning and disinfecting household and waste water. Today, they are sources of constant pollution of water bodies. Vehicle fleets and technical sites, which account for a significant share of emissions into the atmosphere of exhaust gases, contain toxic substances such as sulfur oxides, carbon monoxide, carbon monoxide, soot in their territories. Military ranges and educational training centers that have significant emissions of powder and exhaust gases into the atmosphere contain carcinogenic, toxic or poisonous substances such as powder gases of ammunition, oxides of rocket fuel, exhaust gases of military equipment.

Among all types of pollution related to military activities, a significant part is the pollution of water sources in places where troops are deployed. As a result of atmospheric precipitation, stormwater (melt) flows from the territories of military settlements, contaminated with garbage, various wastes, including oil products and

other chemical (toxic) substances. The most polluted stormwater runoff comes from the territories of car parks, gas stations, warehouses, bases, boiler rooms, equipment repair and maintenance sites, from facilities where soil contamination by oil products and other wastes of harmful substances can occur. Therefore, these objects should first of all be equipped with storm sewers (Plahotnik, 2010).

Soil pollution increases annually in the military, which is explained by the violation of environmental protection legislation, in particular regarding the maintenance of military airfields, repair enterprises and facilities, as well as non-compliance with environmental safety requirements during combat and operational training of the troops. The main sources of soil pollution in the military with carcinogenic substances are exhaust gases from motor vehicles, military equipment, airplanes, boiler rooms, etc. The intensity of soil pollution depends on the power of the emission source, the distance from it to the territory, the direction of the wind and other factors.

The situation may worsen in connection with the conversion of the defense industry - the elimination of missile and nuclear weapons, the transportation and disposal of highly toxic components of rocket fuel, obsolete types of military products and ammunition, and military production waste. Today, it has already become clear to everyone that the production, testing and storage of all types of weapons, without observing the rules of fire and safety technology, the rules of storage and disposal of ammunition, the fulfillment of statutory norms - leads to significant pollution of the air, land, water with various toxic, radioactive and other dangerous substances substances for human life. Currently, the issue of utilization and disposal of ammunition, combat chemical and biological weapons is very acute. This issue requires significant funds.

In the course of hostilities and military conflicts, the limits of the use of natural conditions and resources of territories are exceeded, the environment (in this case, the theater of hostilities) is used as a repository for "waste" and by-products of military operations, which poses a threat to the foundations of human life and other living organisms (Environmental disasters, 2023).The changed environmental and social situation, which is part of the strategic situation, requires a timely and correct assessment. The result of such an assessment may be the clarification or change of the combat tasks of the troops, a change in the areas of their location, the implementation of works to eliminate the consequences of emergency situations, etc.

Therefore, environmental and social protection should be an integral part of both the day-to-day activities of a military unit or its corresponding structure, as well as during armed conflicts. Military-scientific support for the main environmental and social security tasks of the Armed Forces should include: identification of objects and research of factors of adverse environmental impact of military operations on the natural environment in order to assess possible damage and organization of environmental and social support; development and substantiation of the methodology for assessing the degree of environmental and social risk for military personnel and the population in the

locations of troops, military facilities during exercises, special works, accidents, catastrophes and natural disasters; development of specialized and adaptation of existing normative legal and organizational documents in the field of environmental support of troops.

Development of scientific bases and proposals for planning and implementation of works on environmental restoration in locations and combat training; development of a methodology for forecasting the nature and scale of emergency situations, justification and development of measures to prevent them and reduce the level of probable losses of personnel and population, as well as organizational and technical measures to eliminate the consequences of accidents that have occurred; development and implementation of information and analytical systems to ensure environmental monitoring and management of measures to protect and restore the living environment and health of military personnel and the population.

From the previous material, it becomes clear that humanity has long been searching for possible legal measures to overcome the harmful effects of military conflicts on the environment and social situation conditions including human healt. Let's consider the main ones.

Means of preventing the occurrence of military conflicts are international treaties, which are the source of environmental law. For example, the Stockholm Declaration of Principles on the Human Environment of 1972, in principle 26, declared that man and his environment must be freed from the consequences of the use of nuclear and other weapons of mass destruction.The World Charter of Nature, approved by the UN General Assembly in 1982, declares: "p. 5. Nature must be protected from looting as a result of war or other hostile actions... P. 20. Military actions that harm nature must be refrained from.".Paragraph 39.6 of the 1992 Agenda for the 21st Century states that the UN General Assembly and its Sixth Committee are the appropriate forum for the development of measures to protect the environment from large-scale destruction during armed conflict, taking into account the special powers and special role in this process of the International Committee of the Red Cross.

The Rio de Janeiro Declaration on Environment and Development of 1992, in principle 24, declared that war inevitably has a destructive effect on the process of sustainable development, so states must respect international law, ensuring the protection of the environment in the event of armed conflicts.The outcome document of the 2015 Summit on Sustainable Development, Transforming Our World: The 2030 Agenda for Sustainable Development, notes that there can be no sustainable development without peace, and no peace without sustainable development.The Sustainable Development Goals, which are known to have three pillars (economic, social and environmental), also have Goal No. 16, which deals with the achievement of peace. Although these documents are acts of "soft law", they can serve as the initial stage of the development and adoption of an international treaty, confirmation of the existence

of an international legal custom, or act as a guide for the implementation of more general provisions of international treaties or norms of customary law.

Thus, already at the beginning of the 20th century, the issue of banning the use of bacteriological weapons in military conflicts was raised at the international level. Evidence of this is the Geneva Protocol adopted in 1925 on the prohibition of the use of asphyxiating, poisonous or other similar gases and bacteriological agents in war. However, this document established only a ban on the use of such weapons, at the same time, there was no question of their development, production and accumulation. As a result, most countries have ratified this Protocol with reservations, which provide for the possibility of using chemical and bacteriological weapons in response.

This subsequently had a negative impact on the military conflict that occurred in the territories of Vietnam, Laos and Cambodia in the 1960s and 1970s. Only as a result of the use of such weapons, on December 16, 1969, the UN General Assembly approved Resolution No. 2603 (XXIV) "The question of chemical and bacteriological (biological) weapons", in which it specified that the Protocol of 1925 prohibits the use in armed conflicts of any any chemical reagent capable of causing a toxic effect on humans, animals or plants (a chemical substance in a gaseous, liquid or solid state), as well as any biological reagent (living organisms capable of causing illness or death of humans, animals or plants).

This became the initial stage of the development of the environmental component and social protection in the form of protection of human life and health in international military legislation. The result of such work was the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons and on Their Destruction.

An important contribution to ensuring environmental security in the military sphere was also made by the Convention on the prohibition of military or any other hostile use of means of influence on the natural environment of May 18, 1977. The need for its conclusion was connected with the emergence of the possibility of active influence on the environment for military purposes . According to Art. 1 of the Convention, states undertake not to resort to military or any other use of means of influence on the environment, which may cause serious destruction, harm or damage to another state in any form. The regulation of the Convention concerns various ways of changing the dynamics, composition or structure of the Earth's biota, its lithosphere, hydrosphere, atmosphere, as well as the outer space. The Parties to the Convention undertake to take the necessary measures, in accordance with their constitutional procedures, to prohibit or deter any activity under their jurisdiction or control that is contrary to the requirements of the Convention. The Convention does not apply to the sphere of impact on the natural environment and social protection for peaceful purposes.

Thus, the mentioned Convention prohibits geophysical warfare - the deliberate management of natural processes that can cause hurricanes, tsunamis, earthquakes, precipitation in the form of rain and snow.

Norms on ensuring environmental and social safety during an armed conflict of a non-international nature are also enshrined in Additional Protocol I of June 8, 1977 to the Geneva Conventions of August 12, 1949, which concerns the protection of victims of armed conflicts of a non-international nature. In particular, Art. 14 of the Protocol prohibits attacking, destroying, removing or rendering unusable objects necessary for the survival of the civilian population, namely: food stocks, agricultural areas producing food, crops, livestock, structures providing drinking water, stocks the latter, as well as irrigation facilities.

Article 15 of this Protocol prohibits any attack on structures containing dangerous forces (for example, dams, nuclear power plants) if such an attack could cause the release of dangerous forces and cause heavy casualties among the civilian population. In Art. 55 of the specified Protocol states that when conducting military operations, the safety of the environment against extensive, long-term and serious damage must be ensured by establishing prohibitions on the use of methods or means of waging war that are intended to cause or may cause damage to the environment and thereby health or survival of the population.

The understanding by States that the use of prohibited methods or means of warfare can cause extensive, long-term and serious damage to the natural environment is expressed in the preamble of the Convention on the Prohibition or Restriction of the Use of Specific Types of Conventional Weapons, which can be considered to cause excessive damage or have indiscriminate effective from October 10, 1980.

Of particular interest in this regard are the protocols to the Convention: "On the prohibition or restriction of the use of mines, landmines and other devices" (Protocol II) and "On the prohibition or restriction of the use of incendiary weapons" (Protocol III). The use of these mines in itself leads to the death of people, causes significant damage to the surrounding natural environment and social environment, because it prevents the restoration of agricultural lands.

The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and Their Destruction of January 13, 1993 is also of great importance for the researched area, which prohibits: developing, producing, acquiring in any other way, stockpiling or storing chemical weapons or transferring them directly or indirectly chemical weapons to anyone; use chemical weapons; conduct any military preparations for the use of chemical weapons; assist, encourage or induce in any way anyone to engage in any prohibited activity.

However, these international documents are not the only ones in the field of ensuring the environmental safety of military activities. In addition to them, the investigated issue at the international level is also regulated by international acts, which establish:

a) prohibition of nuclear tests: Treaty on the prohibition of tests of nuclear weapons in the atmosphere, in outer space and under water of August 5, 1963; Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968; Comprehensive Nuclear Test Ban Treaty of September 24, 1996; Treaty on the Prohibition of Nuclear Weapons of July 7, 2017. In all these documents, the problem of protecting the environment and human safety from radioactive contamination can be seen;
b) the creation of nuclear-free zones in order to strengthen the non-proliferation of nuclear weapons, in particular: the Treaty on the Prohibition of Placing Nuclear Weapons and Other Weapons of Mass Destruction on the Bottom of the Seas and Oceans and in Their Boreholes of February 11, 1971, etc.;
c) limitation of missile and nuclear weapons and disarmament: Agreement on measures to reduce the danger of nuclear war of September 30, 1971; Agreement on the Prevention of Nuclear War of June 22, 1973; Agreement on the elimination of medium- and short-range missiles of December 8, 1987; Agreement on the Reduction and Limitation of Strategic Offensive Weapons of July 31, 1991; Agreement between Ukraine and the United States of America on providing assistance to Ukraine in the elimination of strategic nuclear weapons, as well as preventing the proliferation of weapons of mass destruction dated October 25, 1993, etc.

Based on the above, a number of the following questions arise: in case of violation of the specified international norms, legal responsibility to the offenders will be applied only within the framework of international legislation and the tribunal, or should domestic legislation also contain relevant legal levers?

Since the war is mainly an interstate conflict, it is clear that the priority belongs to the international settlement of the mentioned issue, however, we believe that the domestic legislation should also contain relevant legal norms, including for the possibility of bringing to legal responsibility the collaborators through or with the help of which they could relevant crimes occur (Golovko, 2021).

It should be noted that today at the state level methods of calculating damages caused to various natural resources as a result of military aggression of the Russian Federation are already accepted, but are they sufficient to solve the mentioned problem? It is believed that no, because the issues of bringing to legal responsibility for the violation of the right to an environment safe for life and health (namely, the methods of determining damages for such a violation), as well as for the violation of the norms of chemical, physical, and biological impact from military aggression, remain open. The issue of developing and adopting a comprehensive normative legal act at both the

international and domestic level, dedicated to the issue of compensation for environmental damage, which would combine all types of environmental damage and determine the legal mechanisms for its deduction, remains relevant.

However, the most important post-war issue will be bringing the Russian Federation to legal responsibility for committed crimes, including environmental ones.In this case, attention should be paid to the scientific work of M. Medvedeva and T. Korotky, who analyzed international and foreign experience on this issue (Medvedeva, 2019).

Most multilateral environmental agreements do not contain provisions on their application in the event of armed conflict. The issue of post-conflict assessment of environmental damage and post-conflict settlement of the problem of environmental protection should be resolved by means of international environmental law, international security law, international humanitarian law, international maritime law (as regards the remnants of war in the marine environment), the law of international organizations (as far as refers to providing assistance to affected territories in post-conflict assessment, monitoring and environmental restoration) (Medvedeva, 2019).

Not the only exceptions are, firstly, the UN Convention on the Law of Non-Navigational Use of International Watercourses of 1997, which has a customary character, establishes: international watercourses and relevant installations should be protected by the principles and norms of international law, which are applied during armed conflicts of an international and non-international nature; secondly, the UNESCO Convention on the Protection of the World Cultural and Natural Heritage of 1972, which in Art. 11 (4) provides for the creation of a List of World Heritage under threat, while among the threats it identifies the danger of armed conflicts. African Convention on the Conservation of Nature and Natural Resources (revised version) of 2003 in Art. XV contains almost the most complete list of environmental protection obligations that states must fulfill not only during armed conflicts, but also after their end.

A significant number of questions regarding the responsibility of the aggressor state for environmental and social damage caused during armed conflicts are determined in the resolutions of the UN Security Council. In addition, the UN also operates the initiative "Greening the Blues", aimed at ensuring the effective participation of UN peacekeeping missions in post-conflict environmental restoration; the conclusion of peace agreements with the distribution of obligations for compensation for environmental damage is also recognized as an effective means.

One of the main tasks related to post-conflict environmental and social restoration should be to ensure long-term management in this area. The United Nations Environment Program (UNEP) has the greatest potential in this area, which has carried out more than 20 post-conflict assessments since 1999, in which the consequences of wars for the environment of various states were determined. UNEP prepared Guidelines for Integrating the Environment into Post-Conflict Needs Assessment 2009, created a

Division for Post-Conflict and Disaster Management, within which it implements the Program on Environmental Cooperation for Peacekeeping.

The United Nations Environment Assembly (the representative body of UNEP) has adopted several resolutions on environmental protection, mitigation and pollution control in areas affected by armed conflicts: "Environmental Protection in Areas Affected by Armed Conflict" 2016, "On "improvement and control of pollution in areas affected by armed conflicts or terrorism" of 2017. In addition, international studies of environmental damage from military conflicts were once carried out by the Regional Environmental Center of Central and Eastern Europe and the World Bank. The reports of these international organizations can be quite useful for assessing the environmental consequences of armed conflicts that may occur in the future.

4.Conclusions

On the basis of the conducted research, it can be stated that social impact on the international legal regulation of environmental security during armed conflicts is at the basis of the formation of a modern scientific and legislative direction of the legal provision of environmental and social security, which is based on the protection of social rights of people including right to health and the environment from dangerous factors of any human activity, including armed conflicts. Among the dangerous factors for humans and the environment during armed conflicts, international norms define human activity in the production and use of weapons, which is characterized by chemical, physical and biological dangerous effects, including the issue of handling waste of war.

Since the 50s of the 20th century, a significant international legal framework has been formed regarding the prohibition of the use of each of these influences. However, in fact, all international legal acts examined in this work contain only prohibition norms that were formed, most likely, with the hope of ethics and decency of each country in this area, in connection with which, the question of attracting to legal responsibility for violations of the specified norms remain unwritten even today, which has caused a number of problems in determining the mechanisms of bringing to justice the Russian Federation, which acted with armed aggression against Ukraine and caused it significant environmental and social damage.

The biggest problem in this case is to invent mechanisms for calculating environmental and social damage caused by such aggression. By its very nature, such a compensation mechanism should take into account not only the damage caused to individual natural resources, but also to the ecosystem as a whole and to human life and health and social sphere, in particular.

At the international level, there is a whole series of special normative acts dedicated to the legal regulation of the harmful effects of military conflicts on the environment and social life. However, the most important post-war issue will be bringing the Russian Federation to legal responsibility for committed crimes, including environmental ones.

International legal norms aimed at insuring environmental and social safety during international armed conflicts are listed in Additional Protocol I to the Geneva Conventions. Unfortunately they are not included among the provisions, the violation of which is qualified as a serious violation enabling individual criminal responsibility. That is why creation of special tribunal is necessary.

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