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Peculiarities of legal regulation of mine action in the country (based on modern international experience)

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Abstract

The problem of demining territories is very painful and relevant for all mankind, and especially for those countries that were in a state of armed confrontation or military conflict, because all civilians and soldiers, children and adults suffer from the unauthorized explosion of an explosive object. The purpose of the article is to conduct a well-founded and meaningful research in accordance with the specified topic, namely, regarding the activities of the countries of the world regarding the effective clearance of territories from explosive objects. During the scientific research and writing of the article, comparative, terminological, system-structural, statistical, dialectical, logical special and general scientific methods of scientific knowledge were used. In particular, the results of mine countermeasures of different countries of the world were specified using a comparative method; the system-structural method determines the sequence of presentation of the material from general information to more specific information; the statistical method was used for the analysis of actual data regarding the calculations of the features of mine action in various countries of the world in relation to Ukraine. The article proposes ways to implement mine countermeasures in Ukraine, taking into account world experience and features of the state's readiness for demining. The definition of the concept of mine action has been formulated. It was established that all mine action activities must be regulated in accordance with international legal acts. An analysis of the financial costs of mine action was carried out. It has been determined that it is necessary to conduct negotiations with specialized foreign organizations that would help organize

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the work on cleaning the territory of the state from explosive objects. The information presented in the article should be useful for scientists and practitioners studying the problems of mine action

Keywords:

legal regulation; ammunition; mines, mine action; contamination of territories; financial assistance; armed conflict; consequences of war

Introduction

According to estimates of the United Nations (the UN), 100-120 million mines of various types and types have been installed on the planet as a result of local wars and acts of terrorism in more than seventy countries. Pollution of territories with explosive objects does not stop today. Every year in the world, 70 people become victims of detonations of explosive objects, and every third of them is a child. Furthermore, it is impossible to carry out any agricultural work, construction, etc. in areas contaminated with explosive objects (Official website of the..., 2022).

This problem has not spared Ukraine. During the eight years of Ukraine's war with the Russian Federation, experts estimate that the area of territories contaminated with explosive objects is about 300,000 km², which is half of the country's territory. As the spokesmen of the State Emergency Service (SES) report, over 45,000 employees of the State Emergency Service were deployed throughout the war, and more than 324,000 explosive items, including more than 2,186 aerial bombs, were detected and defused. The territory of almost 80 thousand hectares was surveyed (State Emergency Service, n.d.). Admittedly, when the issue of clearing the territories of explosive objects arises, Ukraine will be unable to cope with this problem on its own.

Separate publications relating to mine action in general and specific types of its activity in particular were made by A. Havaza (2018), who emphasizes that one should not focus solely on humanitarian demining, since according to international standards it is a component of mine action. The study conducted by I. Duzha and L. Melnyk focuses on problematic issues of mine action and ammunition disposal, as this issue concerns the safety of the entire world society (Duzha & Melnyk, 2021). D. Okipniak, A. Okipniak, M. Zubal (2018) indicate that the specific feature of mine action was and is the elimination of risks that may arise as a result of the detonation of explosive objects or ammunition, to the level safe for the population of Ukraine. Problems of vocabulary on humanitarian demining were covered by A. Palchevska, P. Hubyh (2018), which is factually a new and necessary type of research for Ukraine, since the vocabulary of a specific type of activity is an essential aspect for both translation and theoretical terminological research. G. Moskalov, I. Petrivskiy, V. Shchus, M. Artiemiiev, M. Konopelniuk (2018) investigated the importance of humanitarian demining for Ukraine and the determination of priority areas for the work of relevant specialized

state structures for further implementation of this activity in practical actions. B. Vorovych (2020) studied the issues of mine clearance of territories where military conflicts took place, namely the territory of Ukraine.

However, the issue of highlighting the features of the international analysis of the mine action situation has not yet been properly considered in scientific publications.

The purpose of this study was to analyse, using evidence from other countries, the specific features of joint activities, the possibilities of combining efforts of an organizational nature, financial possibilities, scientific, technical, and technological capacities of various international, national governmental, as well as non-governmental organizations in solving the problem of demining and cleaning contaminated territories from explosive objects.

To fulfil the purpose of the study, it was necessary to solve the following tasks: to formulate a definition of mine action; to analyse international regulations and legal acts of Ukraine on humanitarian demining and mine action; to analyse financial support for mine action; to determine priority areas of work on mine action in Ukraine.

Materials and Methods

Dialectical, special, general scientific, and other methods of scientific cognition were used in conducting scientific research and writing the article. The results of mine action in different countries of the world were compared using the comparative method. The terminological method was used to study the terms and concepts of mine action, by using terminological and explanatory dictionaries, special vocabulary. The system-structural method was used for a consistent, comprehensive study of the features of the organization of work on mine action, not only as a certain structured integral system, but also the study of its individual parts, such as mine prevention measures, providing mine action (training of personnel, providing technical means, creating conditions for the work of personnel), regulation of legal norms. The system method allowed analysing the system of certain rule-making processes for creating regulatory documentation in the field of mine action pursuant to international requirements. The method of dialectics and development in the system of theory of knowledge was aimed at identifying patterns of interaction of legal aspects that are appropriate in the study of general provisions that characterize mine action. Dialectics is a universal method of cognition that does not study particular

forms and types of development, but studies general connections, patterns of any change. Speaking of anti-mine activities, one needs to factor in the reasons for the contamination of territories with explosive objects, and then, accordingly, look for ways and means of cleaning these territories. The statistical method allowed studying and estimating the scale of contaminated territories, the number of destroyed explosive objects, and financial costs for mine action in different countries of the world. A logical method used based on the topic, purpose, and objectives of scientific research for an in-depth study of the essence of mine action as a system of measures. The tools of the logical method used methods of analysis and synthesis, which are interrelated. Analysis consisted in separating certain phenomena into parts, elements, while synthesis, on the contrary, combined individual features, elements into a single whole.

When studying the issue of mine clearance, regulatory documents, and legislative acts were considered, such as: "On Mine Action". Law of Ukraine No. 2642-VIII dated 06.12.2018¹, "On the Adoption of the Protocol on Explosive Objects – Consequences of War". Law of Ukraine No. 2281-IV dated 22.12.2004², "On transportation of dangerous goods". Law of Ukraine No. 1054-IX dated 01.01.2022³, "On the Establishment of the National Authority for Mine Action". Resolution of the Cabinet of Ministers of Ukraine No. 1207 of 10.11.2021⁴, "On Streamlining Work on Detection, Neutralization, and Destruction of Explosive Objects". Resolution of the Cabinet of Ministers of Ukraine No. 2294 of 11.12.1999⁵, "On the Establishment of the Interdepartmental Commission on the Application and Implementation of International Humanitarian Law in Ukraine". Resolution of the Cabinet of Ministers of Ukraine No. 329 dated 26.04.2017⁶, "On the Regulations on the General Staff of the Armed Forces of Ukraine". Presidential Decree No. 23/2019 dated 31.03.2020⁷, "On the Organization of Work on the Detection, Neutralization, and Destruction of Explosive Objects on the Territory of Ukraine and Interaction During their Implementation". General Order of the Ministry

of Emergencies and Protection of the Population from the Consequences of the Chernobyl Disaster, the Ministry of Defence of Ukraine, the Ministry of Transport and Communications of Ukraine, the Administration of the State Border Service of Ukraine No. 405/223/625/455 dated 27.05.2008⁸.

Results and Discussion

Presently, all progressive humanity is focused on two major tasks: first, the manufacture and modernization of modern weapons, using the latest technologies; second, the disposal of outdated, redundant weapons and mine clearance of territories affected by armed conflicts. The latter task is one of the most important ones because in the territories where the fighting ended and where people return to their homes, they will constantly risk being exposed to explosive danger, i.e., constantly risk their lives. Having analysed the sources on the subject under study, the authors proposed their own definitions of the terms "mine clearance", "humanitarian demining", and "mine action".

Mine clearance is a set of measures that are carried out by mine action operators to eliminate the hazards associated with explosive objects, including non-technical and technical inspection of territories, mapping, detection, neutralization and/or destruction of explosive objects, marking, preparation of documentation after mine clearance, providing communities with information on mine action and transfer of cleared territory.

Humanitarian demining is a procedure for thorough and complete cleaning of the territory, after the active phase of hostilities (in a peaceful period of time) from remnants, parts, detonated ammunition, or those ammunition (explosive devices) that for some reason did not work and other explosive objects, which is carried out by law enforcement units and non-profit public associations.

The purpose of humanitarian demining is that the dangerous territory is completely cleared of explosive objects, and after its clearing, it becomes completely safe for the life of the population (Okipniak *et al.*, 2018).

¹Law of Ukraine No. 2642-VIII "On Mine Action in Ukraine". (2021, January). Retrieved from <https://zakon.rada.gov.ua/laws/show/2642-19#Text>.

²Law of Ukraine No. 2281-IV "On the Adoption of the Protocol on Explosive Objects - Consequences of War". (2004, December). Retrieved from <https://zakon.rada.gov.ua/laws/main/2281-15#Text>.

³Law of Ukraine No. 1644-III "On transportation of dangerous goods". (2022, January). Retrieved from <https://zakon.rada.gov.ua/laws/main/1644-14#Text>.

⁴Resolution of the Cabinet of Ministers of Ukraine No. 1207 "On the Establishment of the National Authority for Mine Action". (2021, November). Retrieved from <https://zakon.rada.gov.ua/laws/show/1207-2021-%D0%BF#Text>.

⁵Resolution of the Cabinet of Ministers of Ukraine No. 2294-99-п "On Streamlining Work on Detection, Neutralization, and Destruction of Explosive Objects". (2018, September). Retrieved from <https://zakon.rada.gov.ua/laws/show/2294-99-%D0%BF#Text>.

⁶Resolution of the Cabinet of Ministers of Ukraine No. 329-2017-P "On the Establishment of the Interdepartmental Commission on the Application and Implementation of International Humanitarian Law in Ukraine". (2020, November). Retrieved from <https://zakon.rada.gov.ua/laws/show/329-2017-%D0%BF#Text>.

⁷Decree of the President of Ukraine No. 23/2019 "On the Regulations on the General Staff of the Armed Forces of Ukraine". (2020, March). Retrieved from <https://zakon.rada.gov.ua/laws/show/23/2019#Text>.

⁸General order of the Ministry of Emergencies and Protection of the Population from the Consequences of the Chernobyl Disaster, the Ministry of Defence of Ukraine, the Ministry of Transport and Communications of Ukraine, the Administration of the State Border Service of Ukraine No. 405/223/625/455 "On the Organization of Work on the Detection, Neutralization, and Destruction of Explosive Objects on the Territory of Ukraine and Interaction During their Implementation". (2008, May). Retrieved from <https://zakon.rada.gov.ua/laws/show/z0591-08#Text>.

In turn, mine action is measures carried out to ensure national security and aimed at reducing the social, economic, and environmental impact of explosive objects on the life and activities of the population.

According to A. Havaza (2018), the main task of mine action (MA) is to attract the maximum number of forces and means to reduce the risks that may arise in case of a detonation of explosive objects to a safe level for the population. This allows processing fields, land plots, forest stands for economic purposes and for industrial purposes, i.e., mine action aims to reduce the threat of accidents from unauthorized explosions to zero, and thereby reduce social tension in society and preserve the environment and unique ecosystems of the state.

For the first time, international standards for mine action were prepared and published in the work of the International Technical Conference in July 1996, which was held in Denmark. These standards defined the criteria for all features of mine action, as well as recommended and agreed on new universal terms and definitions of concepts related to mine action. International standards for demining operations were developed by a working group, which was created under the leadership of the UN Secretariat. The first editions were published by the United Nations Mine Action Service (UNMAS) in March 1997 (Ducik & Chernysh, 2019).

Currently, the UN has fully assumed responsibility for ensuring the conditions and effective management of international mine action programs, including the development and approval of standards. UNMAS conducts its work on the development of standards together with the Geneva International Centre for Humanitarian Demining – GICHD. In turn, technical committees of experts, which include mine clearance specialists, develop new mine action standards, review the developed ones, and periodically review existing mine action standards. Technical committees are supported by international, governmental, and non-governmental organizations.

Ukraine also joined the requirements of international regulations on mine action, such as the second Protocol with amendments introduced in 1996 “On the Prohibition or Restriction of the Use of Mines, Mine Traps, and Other Devices”¹, the fifth Protocol “On explosive objects – consequences of war” of the Geneva Convention of 1983, “On the Prohibition or Restriction of the Use of Specific Types of Conventional Weapons That

Can be Considered to Cause Excessive Damage or Have an Indiscriminate Effect”², the Ottawa Convention of 1997 “On the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on Their Destruction”³ which require from Ukraine to take decisive actions regarding the adoption and performance of the requirements of the measures adopted by these international documents at the national level.

Considering the events of recent decades related to wars and military conflicts in such countries as Serbia, Croatia, Montenegro, Syria, Iraq, Afghanistan, Libya, Ukraine and others, the international community fully understands the scale and severity of the problem of clearing territories of explosive objects, i.e., objects belonging to the category of remnants of war. This problem will not be solved by itself, and therefore gradual coordinated action is needed, which can only be resolved under the auspices of the United Nations (Duzha, & Melnyk, 2021).

International standards (Ministry of Defence..., n.d.) prescribe five necessary points that complement each other: informing about the danger of mines and the danger of explosive remnants of war (ERW); carrying out activities on humanitarian demining; aid to victims, including rehabilitation and reintegration; destruction of stocks of anti-personnel mines; information and propaganda activities against the use of anti-personnel mines (Havaza, 2018).

The UNMAS reviews the norms of the International Mine Action Standards (IMAS) once every three years, which are adjusted according to the practical aspects of mine action, as well as to harmonize these changes with international rules and requirements (Havaza, 2018).

The main documents of international law on mine action include: Ottawa Convention of 1997 “On the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction”⁴; 1980 UN Geneva Convention “On the Prohibition or Restriction of the Use of Specific Types of Conventional Weapons Which May Be Considered to Cause Excessive Damage or to Have an Indiscriminate Effect”⁵; Protocol attached to the Convention as amended on May 3, 1996 “On the Prohibition or Restriction of the Use of Specific Types of Conventional Weapons on the Prohibition or Restriction of the Use of Mines, Trap Mines and Other Devices”⁶.

¹Law of Ukraine No. 1084-XIV “On Protocol on the Prohibition or Restriction of the Use of Mines, Mine Traps, and Other Devices as Amended on May 3, 1996”. (1999, September). Retrieved from https://zakon.rada.gov.ua/laws/show/995_310#Text.

²Law of Ukraine No. 2281-IV “On the Adoption of the Protocol on Explosive Objects - Consequences of War”. (2004, December). Retrieved from <https://zakon.rada.gov.ua/laws/main/2281-15#Text>.

³Law of Ukraine No. 2566-IV “On the Ratification of the Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on Their Destruction”. (2005, May). Retrieved from <https://zakon.rada.gov.ua/laws/show/2566-15#Text>.

⁴Anti-Personnel Landmines Convention. (1997, March). Retrieved from <https://www.un.org/disarmament/anti-personnel-landmines-convention/>.

⁵The United Nations Convention on Certain Conventional Weapons. (2001, December). Retrieved from <https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/>.

⁶Law of Ukraine No. 1084-XIV “Protocol on the Prohibition or Restriction of the Use of Mines, Mine Traps, and Other Devices as Amended on May 3, 1996”. (1999, September). Retrieved from https://zakon.rada.gov.ua/laws/show/995_310#Text.

By the Law of Ukraine No. 2281-IV "On the Adoption of the Protocol on Explosive Objects – Consequences of War"¹ dated 22.12.2004, the Verkhovna Rada of Ukraine ratified the requirements of the Geneva 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 a non-selective effect"² approved on November 28, 2003 at the meeting of the member states. This document refers to the international standard on mine action. For instance, Article 7, Item 2 of the Protocol³ states as follows: "...every High Contracting Party that is capable of doing so provides, to the extent necessary and possible, support in resolving the problems caused by existing explosive objects - the consequences of war". Therewith, the High Contracting Parties also consider the humanitarian objectives of this protocol, as well as IMAS.

The United States of America is the country that currently finances the most projects in the world for the destruction (disposal) of conventional weapons. Thanks to this assistance, by eliminating the humanitarian hazards associated with explosive objects, the situation in countries that have experienced military conflict or war contributes to international peace, stability, and security (Duzha & Melnyk, 2021).

Over 30 years of investment by the United States of America in the disposal of landmines and various ammunition, over 44 billion USD has been spent. In addition, part of this amount was spent on ensuring the protection of surplus small arms, light weapons and ammunition and their safe disposal in more than 100 countries around the world. In 2020 alone, the United States financed the destruction of conventional weapons in the amount of more than \$259 million in almost 50 countries of the world (Non-governmental international..., 2020; Duzha & Melnyk, 2021).

Most countries that were in a state of military conflict received financial support to eliminate the consequences of the war and clear their territory of explosive objects. To avoid an explosive catastrophe in Lebanon, the United States has provided financial support to the Lebanese government to modernize the ammunition depots of the first Artillery Regiment of the Lebanese Armed Forces (Duja & Melnik, 2021).

In the United States, the Center for Humanitarian Demining Research and Development (HD R&D) has been established in Belvoir, Virginia. The program of the Center's activities is the development, demonstration, and approval of new technological developments for the search and neutralization of mines and explosive objects of various purposes. This program uses an

accelerated development process that aims to transform existing commercial technical equipment into technologies for mine clearance of contaminated areas of varying complexity (Humanitarian Demining Research..., n.d.).

The evaluation of the quality of these technologies was tested by the HD R&D Centre in 2020 in Kosovo, Bosnia and Herzegovina, Afghanistan, Angola, Colombia, Iraq, Syria, Thailand and other countries of the world where military conflicts took place (Duzha & Melnyk, 2021).

During the 27 years of its existence (since 1995), the HD R&D technologies developed and applied for practical use have cleared beyond 80 million m² of land areas of explosive objects, while over 227,600 engineering munitions have been removed and destroyed (Humanitarian Demining Research..., n.d.).

Since 2014, when the conflict in the east of Ukraine began, demining groups of the Armed Forces of Ukraine, pyrotechnic and explosive units of the Ministry of Internal Affairs of Ukraine have been working on clearing the de-occupied territories of Kyiv, Chernihiv, Sumy, Poltava, Kharkiv, Kherson, Zaporizhzhia, Mykolaiv, Odesa, Donetsk, and Luhansk regions. While working, mine clearance specialists deal with many tripwires, mines, and other unexploded ordnance left by terrorists. According to official sources of mass information, during the Joint Forces Operation, sapper units of the Armed Forces of Ukraine destroyed hundreds of thousands of explosive munitions, among which almost half were improvised explosive devices; during this period, 771 infrastructure facilities were demined, including 1,497 premises and residential buildings in Sloviansk, Kramatorsk, Bakhmut, and other cities; over 1.5 thousand kilometres of highways and railways were surveyed for the presence of minefields and explosive objects, numerous various objects were demined (dams, water channels, electrical substations, overpasses, etc.) (Stetsiuk, 2019).

The international community does not stand aside in providing aid to Ukraine on mine action issues. Thus, since 2016, international non-governmental organizations have been taking part in mine action in Ukraine, such as the Swiss mine action fund "FSD", the British-American non-governmental organization "The HALO Trust", the Danish demining group "DDG" (Voloshyn, 2020).

For instance, the British charity and American non-profit organization "The HALO Trust" trained over a hundred people on modern methods of conducting classes on informing about the risks of explosive objects, depending on the categories of the population: schoolchildren, teachers, employees of higher educational institutions, employees of critical infrastructure enterprises, etc. (2020).

¹Law of Ukraine No. 2281-IV "On the Adoption of the Protocol on Explosive Objects - Consequences of War". (2004, December). Retrieved from <https://zakon.rada.gov.ua/laws/main/2281-15#Text>.

²Convention No. 995_266, "On the Prohibition or Restriction of the Use of Specific Types of Conventional Weapons That Can be Considered to Cause Excessive Damage or Have an Indiscriminate Effect". (2004, June). Retrieved from https://zakon.rada.gov.ua/laws/show/995_266#Text.

³Law of Ukraine No. 2281-IV "On the Adoption of the Protocol on Explosive Objects - Consequences of War". (2004, December). Retrieved from <https://zakon.rada.gov.ua/laws/main/2281-15#Text>.

As world practices show, the maximum efficiency of an organization for mine action is achieved when information management on mine action is carried out using software. Considering these circumstances, the Ministry of Defence of Ukraine, together with the State Emergency Service and the State Transport Service, with the support of the Organization for Security and Co-operation in Europe (OSCE), is creating an Information Management System for Mine Action (IMSMA) in Ukraine, which will maintain a special form of collecting data on incidents related to explosive objects and their victims (State Emergency Service..., n.d.).

An important aspect when clearing the territories of the state from explosive objects is a gradual step-by-step survey of territories, while it is necessary to draft maps of dangerous zones.

In Ukraine, Resolution No. 1207 of the Cabinet of Ministers of Ukraine dated November 10, 2021 established the National Mine Action Authority (NMAA)¹. This structure is an interdepartmental auxiliary body whose main tasks are as follows: coordination of mine action activities by executive authorities, local self-government bodies and mine action operators. This body also organizes the development and implementation of national mine action standards that meet the requirements of international mine action standards and, specifically, humanitarian demining.

Demining work must be carried out directly by special units or organizations that have official registration according to international standards and meet the criteria of these standards.

For instance, Croatia is the country that suffered the most during the war in Yugoslavia, large volumes of the territory of this state were contaminated with explosive objects. In Croatia, the Croatian Mine Action Center (CROMAC) was established, which became an integral part of the state system responsible for demining. Simultaneously with the organization and implementation of works related to mine action, CROMAC is engaged in research, development of the latest methods, new mine action technologies, tests the latest technical means and equipment for demining, carries out testing and operational evaluation of modern technologies, introduces personnel training in mine action and provides technical support to countries in the region and beyond (Havaza, 2018).

An analogous centre was also created in Bosnia and Herzegovina, which coordinates mine action activities in the country between the Armed Forces, civil defence forces and non-commercial, non-governmental organizations (NGOs) that carry out demining activities (Havaza, 2018).

Another example, in the Republic of Azerbaijan, the Azerbaijan National Agency for Mine Action (ANAMA) was created by Presidential Decree No. 1251 "On the

establishment of the Agency of the Republic of Azerbaijan for Demining"² dated 15.01.2021. This agency operates pursuant to the National Strategic Plan of Azerbaijan (Azerbaijan's National Development..., 2022). An interesting fact is that the financing of mine action projects is carried out with contributions from donor countries and international organizations, which makes up 90% of ANAMA's total budget (Havaza, 2018). The main donors to mine clearance in this country are the United States of America, the UN, the European Commission and others.

International practices indicate that it is advisable to create an operational Mine Action Center under the National Mine Action Authority, which will help with mine clearance and will be responsible for:

- coordination and planning of mine action activities;
- providing technical advice to operators and the National Mine Action Authority;
- creation and maintenance of mine action databases;
- accreditation of organizations that may be involved in the implementation of mine action activities;
- conducting an investigation of accidents and incidents related to mine action (Duzha & Melnik, 2021).

Mine action requires large material costs, such as training specialists, development and acquisition of technical means, organizational issues related to mine clearance, improving legislation and solving many other components related to the implementation of these works. Therefore, no state can manage independently using its own resources, and as practice suggests, there are various funds, government programs and non-governmental organizations in the world that can finance work and provide technical and professional support for mine action.

Taking each aspect of mine action organization separately, an important stage of this work is the training of specialists; according to A. Havaza (2018), the issue of training in mine action should concern not only demining specialists, but the entire population of the country, and first of all, it concerns teachers, schoolchildren, specialists who are involved in the work of critical infrastructure.

The position of the team of authors H. Moskalov, I. Petrivskiy *et al.* (2018) regarding the training of specialists is such that an important aspect is the scientific rethinking and introduction of new technologies in the training of mine clearance specialists. This aspect also applies to specialists of the Armed Forces of Ukraine and mine clearance units of law enforcement agencies, non-governmental organizations. After all, technological advance in the development of the latest technologies, new means and methods for cleaning territories contaminated with explosive objects are constantly being improved.

¹Resolution of the Cabinet of Ministers of Ukraine No. 1207 "On the Establishment of the National Authority for Mine Action". (2021, November). Retrieved from <https://zakon.rada.gov.ua/laws/show/1207-2021-%D0%BF#Text>.

²Decree of President of the Republic of Azerbaijan No. 1251 "On the establishment of the Agency of the Republic of Azerbaijan for Demining". (2021, January). Retrieved from <https://azertag.az/ru/xeber/1689349>.

Against the background of interaction between state bodies that can be involved in the processes of cleaning territories from explosive objects, it is necessary to factor in professional vocabulary and terminology. Mine clearance is a separate type of professional activity that belongs to dangerous types of work, and a correct understanding of the situation when performing special mine clearance operations is vital. Terminological issues are especially important in the interaction of different fields of activity of specialists or in international cooperation during the cleaning of territories contaminated by explosive objects.

Research was also conducted on this topic by researchers A. Palchevska and P. Hubych (2018), who investigated the issues of communication, terminology, and availability of terminological dictionaries on humanitarian demining. The official language of humanitarian demining in the world is English, which allows specialists from different countries of the world to quickly master the situation and make important decisions when performing work. Furthermore, as the authors point out, the term system of humanitarian demining is of value in the context of philological terminology studies. Since the process of humanitarian demining in Ukraine is just beginning, the needs of competent translations create demand. And as a conclusion, the authors point out that there is a need to compile English-Ukrainian dictionaries of specific terminology on mine clearance, and it can be considered a priority for Ukrainian terminography.

Financing of mine action activities is also an important aspect. It is quite logical that the contamination of territories with explosive objects is carried out during military operations (war). War is a terrible and dangerous phenomenon that adversely affects all aspects of the development of the state and public life. During the active phase of hostilities, industry stops working, business closes or moves to other safe places, budget revenues are considerably reduced, and accordingly, the state cannot provide full-scale mine clearance measures on its own. One of the possible ways to avoid this problem is to appeal to the international community with a request for financial support.

I. Duzha and L. Melnyk (2021) conducted a scientific study on this issue and concluded that the United States of America is the world leader in providing financial support for mine action. The programs created by the United States for mine action around the world are aimed at strengthening civil protection of the population and achieving the national security goals of both the United States and its partners, neighbours, and the entire international community. This is evidenced by the following facts, the provision of financial support to the countries of former Yugoslavia, Africa, and Asia. Moreover, the amount of support is hundreds of millions of dollars.

Technical support is also an important factor in mine action. Currently, numerous technical developments have been developed for the search, neutralization, and

destruction of detected explosive objects. From a practical standpoint, it is much more difficult to develop and implement technical means in practical activities than to master already developed technical means that work successfully and have proven themselves well in mine action. Technical means include various kits, metal detectors, protective equipment, and robotic complexes. A large number of previously developed technical tools are currently being improved and upgraded.

According to V. Kyrylenko and V. Neroba (2019), when clearing large territories, technical means should be used, namely multifunctional technical means that are intended for demining territories. The world practices of operating mobile robotic complexes are considered as a basis for promising developments. The main trend in the implementation of these developments is to equip the complexes in use with means of automation of management, artificial intelligence, and advanced means of management.

The position of B. Varovych (2020) on this issue is that for the survey of minefields, it is advisable to investigate and analyse the world practices in the use of unmanned aerial vehicles (drones) in mine clearance of territories. Practical actions to clear minefields with unmanned aerial vehicles show great efficiency and cost-effectiveness. The scientist also claims that in the future, it is advisable to conduct scientific research to perfect the efficiency and improvement of samples of equipment and technologies for searching for and neutralizing explosive objects.

At the current stage of its existence, Ukraine has experienced great trials and losses due to the attack of the troops of the Russian Federation, but wars end and life goes on, and considering the statistical data on the contamination of the territory of the state with explosive objects, Ukraine must unite its efforts in such a way as to clear the territory and make it safe for living.

As B. Varovych (2020) claims, no country in the world facing the problem of demining territories after military operations can solve this problem on its own, i.e., at the expense of the personal budget, and therefore it turns to international and domestic official suppliers for help with humanitarian demining services.

Furthermore, as the author notes, international practices indicate that countries with less economic development choose the path of creating national mine action programs based on the state power structures of the Ministry of Defence, while countries with greater economic development allocate humanitarian demining as a separate activity, which allows attracting international aid, non-governmental organizations and help the Ministry of Defence avoid performing functions not inherent to it.

Therefore, to solve the issue of clearing territories of explosive objects, it is necessary to investigate the practices of other countries and introduce new promising technologies for training specialists, developing technical means, and implementing programs. In addition,

a significant guarantee in the organization of mine action is constant communication with the UN and non-governmental organizations of other countries that have extensive practical experience in humanitarian demining.

Conclusions

Thus, considering the above, according to the results of the study of sources of scientific literature and official documents, the solution to the issue of mine clearance and clearing of contaminated territories of Ukraine from explosive objects is possible, but it is necessary to consider international practices and involve various international, national governmental, and non-governmental organizations in joint efforts.

Today, Ukraine has developed the necessary regulatory framework, practical experience of mine clearance practitioners in the Armed Forces of Ukraine, the State Emergency Service, and the National Police of Ukraine. Furthermore, judging by the reaction of international partners, the international community is ready to support Ukraine in implementing the necessary political, regulatory, and practical measures to solve the problem of clearing the territory of explosive objects.

The international legal framework for mine action is the international standards developed and approved by the units of the UN Secretariat on mine action, Protocols

and Conventions on the prohibition or restriction of the use of specific types of conventional weapons or ammunition also play a vital role. Ukraine has recognized and joined the implementation of relevant international regulations, having developed its own internal legislative acts governing mine action in the state and meeting the requirements of the United Nations. The study analysed the financing of mine action activities at the international level.

Considering all these circumstances, it can be stated that Ukraine will not be left alone with its problems regarding the demining of territories, and concerned citizens of the country are already monitoring and preparing for an active approach to demining territories at a fast pace, after the end of the active phase of hostilities. Likewise, it is evident that the country is conducting educational work on the safety of handling explosive objects, the scientific community in all areas conducts research on the issues of humanitarian demining and this gives optimism regarding this problem.

Conflict of Interest

None.

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References

- [1] Azerbaijan's National Development Vision and Plans. (2022). Retrieved from <https://effectivecooperation.org/Azerbaijan-national-development-vision-and-plans>.
- [2] Barlow, D. (2009). *Amending the Ottawa convention: A way forward*. *The Journal of ERW and Mine Action*, 13(1), 4-8.
- [3] Brief, N. (2014). *Tracense develops new explosive detector*. *The Journal of ERW and Mine Action*, 18(3), article number 18.
- [4] Duzha, I., & Melnyk, L. (2021). USA global leadership in darming and weapon destruction. *Bulletin of Lviv University*, 36, 196-208. doi: 10.30970/PPS.2021.36.24.
- [5] Fan, J., Lu, R., Yang, X., Gao, F., Li, Q., & Zeng, J. (2021). Design and implementation of intelligent EOD system based on six-rotor UAV. *Drones*, 5(4), article number 146. doi: 10.3390/drones5040146.
- [6] Harutyunyan, A. (2014). *Demining in remote areas of Northern Afghanistan*. *The Journal of ERW and Mine Action*, 18(3), article number 10.
- [7] Havaza, A. (2018). *Lecturer of the department of management in emergencies*. *Institute of Public Administration in the Sphere of Civil Protection*, 15(2018), 109-117.
- [8] Horváth, T., & Szatai, J. (2020). History of detection of explosive devices 2. (1951 to the present). *Land Forces Academy Review*, 25(4), 290-301. doi: 10.2478/raft-2020-0035.
- [9] Krivtsun, V.I., Zbrutskyi, O.V., & Kovalchuk, V.M. (2022). Study of the processes of detection of explosive objects by induction and radio-wave methods on the basis of the results of single-factor experimental experiments. *Bulletin of Lviv State University of Life Safety*, 26, 73-80. doi: 10.32447/20784643.26.2022.09.
- [10] Kyrylenko, V., & Neroba, V. (2019). *The global problem of mine clearance: Status and approaches to solving*. *Collection of Scientific Works of the Center of Military and Strategic Research of the National Defense University of Ukraine Named After Ivan Chernyakhovsky*, 2(66), 115-119.
- [11] Mahoney, A., Edwards, T., Lalonde, K., Cox, C., Weetjens, B., Gilbert, T., Tewelde, T., & Poling, A. (2014). *Evaluating landmine-detection rats in operational conditions*. *The Journal of ERW and Mine Action*, 18(3), article number 17.
- [12] Manual for the use of international mine action standards (IMAS). (n.d.). Retrieved from <https://www.mineactionstandards.org/>.
- [13] MIA portal. (2022). Retrieved from <https://mvs.gov.ua/uk/news/vibuxotexniki-nacpoliciji-prodovzuyut-zabezpechuvati-reaguvannya-na-zvernennya-gromadyan>.

- [14] Moskalyov, G.Y., Petrivskiy, I.V., Schus, V.M., Urtemyev, M.S., & Konopelnyuk, M.V. (2018). [Modern tasks and problems of anti-mines activities in Ukraine](#). *Bridges and Tunnels: Theory, Research, Practice*, 14, 22-28. doi: 10.15802/bttrp2019/152860.
- [15] Non-governmental international organization «Landmine Monitor». (2020). Retrieved from <http://www.the-monitor.org/en-gb/our-research/landmine-monitor/2020.aspx>.
- [16] Humanitarian Demining Research and Development. (n.d.). Retrieved from http://www.humanitarian-demining.org/2010Design/Program_Overview.asp.
- [17] Ministry of Defence of Ukraine. (n.d.). Retrieved from <https://www.mil.gov.ua/ministry/normativno-pravova-baza/>.
- [18] Official website of the United Nations (UN). (n.d.). Retrieved from <https://www.un.org/en/global-issues/disarmament>.
- [19] Okipnyak, D.A., Okipnyak, A.S., & Zubal, M.V. (2018). [Pedagogical aspects of training future demining specialists taking into account today's requirements](#). *Bulletin of Kamianets-Podilskiy National University named after Ivan Ohienko*, 11, 274-282.
- [20] Palchevska, O.S., & Hubysh, P.V. (2018). [Humanitarian demining in Ukraine: Communication, terminology, dictionary](#). *Scientific journal of the Lviv State University of Life Safety "Lviv Philological Journal"*, 3, 197-200.
- [21] Patterson, T. (2010). [The performance of militaries in humanitarian demining](#). *The Journal of ERW and Mine Action*, 14(1), article number 11.
- [22] Patterson, T., & Griffiths, T. (2013). [Assessment of Vietnam's national mine action program](#). *The Journal of ERW and Mine Action*, 17(2), article number 7.
- [23] State Emergency Service. (n.d.). Retrieved from <https://dsns.gov.ua/>.
- [24] Stetsiuk, Y. (2019). Development of mathematical model of localization of a small explosive object with the help of a specialized protective device. *Technology Audit and Production Reserves*, 3(47), 26-30. doi: 10.15587/2312-8372.2019.173640.
- [25] Volochyn, N. (2020). How international humanitarian structures help demining Donbas. Retrieved from <https://armyinform.com.ua/2020/11/04/yak-mizhnarodni-gumanitarni-struktury-dopomagayut-rozminovuvaty-donbas>.
- [26] Vorovych, B. (2020). Ways to solve the problem of demining the territory of Ukraine. *Collection of Scientific Papers of the Center for Military and Strategic Studies National University of Defense of Ukraine named after Ivan Chernyakhovskiy*, 2(69), 143-148. doi: 10.33099/2304-2745/2020-2-69/143-149.

Особливості правового регулювання протимінної діяльності країни (на прикладі сучасного міжнародного досвіду)

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Анотація

Проблема розмінування територій актуальна для всього людства, особливо для тих країн, які перебували в стані збройного протистояння чи військового конфлікту, адже від несанкціонованого вибуху вибухонебезпечного предмета страждають усі цивільні та військові, діти й дорослі. Метою статті є проведення ґрунтовного дослідження відповідно до зазначеної тематики, а саме щодо діяльності країн світу з приводу ефективного очищення територій від вибухонебезпечних предметів. Методологічну основу становлять порівняльний, термінологічний, системно-структурний, статистичний, діалектичний, логічний, спеціальні та загальнонаукові методи наукового пізнання. Зокрема, шляхом застосування порівняльного методу уточнено результати протимінної діяльності різних країн світу; системно-структурного методу – визначено послідовність викладення матеріалу від загальної інформації до більш конкретної; статистичний метод застосовано для проведення аналізу фактичних даних щодо розрахунків особливостей протимінної діяльності в Хорватії, Сербії, Чорногорії, Сирії, Лівії, Іраку, Афганістані, Азербайджані стосовно України. У статті запропоновано шляхи реалізації протимінної діяльності в Україні з огляду на світовий досвід й особливості готовності держави до розмінування. Сформульовано визначення поняття протимінної діяльності. Констатовано, що всі роботи з протимінної діяльності повинні бути врегульовані відповідно до міжнародних правових актів. Проведено аналіз фінансових затрат із протимінної діяльності. Визначено, що в умовах сьогодення слід вести перемовини з профільними іноземними організаціями, які б сприяли організації роботи щодо очищення території держави від вибухонебезпечних предметів. Результати дослідження мають практичне значення для науковців і практиків, що вивчають проблематику протимінної діяльності

Ключові слова:

правова регуляція; боєприпаси; міни; протимінна діяльність; забруднення територій; фінансова допомога; збройний конфлікт; наслідки війни