SAFETY EDUCATION ON PROCEDURES RELATED TO UNEXPLODED ORDNANCE AND OTHER MILITARY EXPLOSIVES. RESEARCH REPORT

Poland:
Agnieszka Pieniążek
Piotr Pacek
Danuta Kaźmierczak
Mateusz Stopa

Czech Republic:
Tomáš Kolomazník
Zdeněk Rod

Slovakia:
Jozef Talarovic
Jozef Burda

Ukraine:
Volodymyr Babyak

2024

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table of contents

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

ANALYSIS OF LEGAL SOLUTIONS FOR THE EVALUATION OF SECURITY SYSTEMS IN THE AREA, RESPONSE AND PREVENTION PROCEDURES PROVIDED BY PUBLIC INSTITUTIONS AND NGOs

Introduction

During the wars of the 20th century the territories of European countries were destroyed by millions of mines, shells, bombs and small arms ammunition. One of the regions of intense fighting, that was not only destroyed but also heavily mined,[1] is the Carpathian Mountains (due to, among other things, the Dukla-Presov operation, also known as the Carpatho-Dukla operation). Despite the passage of many years since the end of World War I and World War II, as well as the post-war demining operation[2], a huge number of unexploded shell, unexploded ordnance and hazardous materials[3] continue to threaten the safety of people living in the areas

[1] The areas were mined by both the Germans, who were preparing the next lines of defense, and the Russians, who were mainly securing their advanced bridgeheads to counter counterattacks.

[2] In 1945 alone, 272,000 square kilometers of Poland were checked and demined, 10,711,940 mines of various types and 22,460,784 pieces of ammunition and unexploded ordnance were removed and destroyed. Death during this extremely risky service was suffered by 464 soldiers, and 515 were wounded and maimed.

[3] **Unexploded ordnance** - is any object containing an explosive charge or explosive material in a free state, which should detonate, but despite the creation of the conditions necessary for this process, the explosion has not occurred. The cause of an unexploded ordnance can be the failure to start or malfunction of the detonator, chemical changes in the explosive itself and many other factors. Agents that were used but failed to work or malfunctioned are considered unexploded ordnance. In addition to this, explosive agents that lack proper supervision and control, such as those discovered somewhere, of unknown origin, damaged, expired, etc., are also considered unexploded.
Unexploded shell - is an ammunition containing a propelling charge, which has not detonated despite the creation of suitable conditions for this process. The term unexploded is used for two types of munitions - those that explode with less than detonation force and those that ignite. In general, the term refers to means containing a propelling explosive, that is, where the explosion is deflagration. A non-explosive can also become a primer or other detonator. The cause of a non-explosive may be the failure to start or malfunction of the detonator, chemical changes in the material itself, etc. Explosives are considered to be unexploded ordnance that have been used but have not worked, or have worked incorrectly as a result of which they may still pose a danger. In addition to this, agents that lack proper supervision and control, such as those discovered somewhere, of unknown origin, damaged, expired, etc., are also considered unexploded shell.
Dangerous objects - all kinds of equipment (materials of military, industrial or other origin, which, having flammable, corrosive, poisonous properties, trigger danger when handling or coming into contact with air or high temperature. These include flammable, corrosive, and poisonous liquid, the contents of steel cylinders, fire extinguishers, residues of various substances in laboratory apparatus, etc.
Abandoned ammunition, left behind - ammunition not used in the course of fighting. Explosive and dangerous objects can be characterized by different technical condition. All works related to this type should be planned with extreme caution. Activities related to destruction (relocation), should be preceded by a thorough reconnaissance.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

of warfare intensively carried out in the first half of the last century. Deadly objects not only pose a real threat to residents, but also delay many projects and impede the development of infrastructure as well as the economy.

To understand the scale of the problem, it should be noted that, for example, Polish sapper patrols[4] in 2021 neutralized 257,104 pieces of unexploded ordnance and unexploded shell in 7117 interventions.[5] Similar statistics are recorded every year. Media reports constantly present information about unexploded and unexploded shells found.

Methodology

Internet data search with keyword selection for each of the three research areas:

I. Acts on procedures for handling unexploded ordnance and other military explosives.

II. Safety education, curricula, safety training, unexploded ordnance hazards, school prevention programs.

III. Cooperation of NGOs in education and activities on securing unexploded ordnance and other military explosives

I. LEGAL SOLUTIONS FOR EVALUATING SECURITY SYSTEMS, RESPONSE AND PREVENTION PROCEDURES PROVIDED BY PUBLIC INSTITUTIONS AND NON-GOVERNMENTAL ORGANIZATIONS

Purpose and scope of the analysis

The purpose of the considerations is to analyse legal solutions for assessing security systems in a given area, as well as response and prevention procedures provided by public institutions. The analysis is made within the framework of the study entitled

[4] Sapper patrol - a specialized subdivision of soldiers of the engineering forces designed for the emergency collection, clearing and destruction of explosive and dangerous objects of military origin.

[5] General Command of the Kinds of the Armed Forces of the Republic of Poland.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Security Education on Procedures Related to Unexploded Ordnance and Other Explosives of Military Origin, conducted in Poland, Slovakia, the Czech Republic and Ukraine.

Specific issues of the analysis are as follows:

1. Presentation of issues concerning response and prevention procedures provided by public institutions and NGOs in case of finding hazardous materials, unexploded ordnance or other materials of military origin.
2. Rules of conduct in case of finding hazardous materials, unexploded ordnance or other materials of military origin.
3. Institutions responsible for the removal of hazardous materials, unexploded ordnance or other materials of military origin in the Carpathian part of the country.
4. Promotion and education campaign on the rules of conduct in the event of finding hazardous materials, unexploded ordnance or other materials of military origin (including examples of campaigns of national and regional scope, i.e. undertaken in the Carpathian part of the country).
5. The role of NGOs.

Analysis area

The analysis of issues (items: 1-5) was carried out on a national level with a special focus on the Carpathian region. The Carpathians are understood as the area of the mountain chain in central Europe, stretching across the territories of seven countries: Austria, Czech Republic, Poland, Slovakia, Hungary, Ukraine, Romania.

1) Presentation of issues concerning response and prevention procedures provided by public institutions and non-governmental organizations in case of finding hazardous materials, unexploded ordnance or other materials of military origin

POLAND

The Polish literature allowing for the conduct of analysis of the issue of response and prevention procedures provided by public institutions and non-governmental organizations in

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

the event of finding hazardous materials, unexploded ordnance or other materials of military origin is not very extensive. It is limited to a small number of items devoted practically entirely to the area of the Armed Forces. The literature presents procedures for responding to and dealing with the threats in question, undertaken by sapper patrols and other military entities. Significantly, an in-depth literature search revealed virtually no studies presenting other entities involved in the above process. There are no stand-alone studies concerning the Police, the crisis management system or the State Fire Service. The knowledge presented in the studies, in some cases, does not take into account the latest legal regulations. It should be emphasized that this does not prejudice the presented procedures, which remain virtually unchanged. It is also important that none of the literature items deviate in merit from others. The knowledge is consistent, regardless of the source and author. It seems recommended to somewhat systematize the subject of research in accordance with the current state of the law (in line with the analysis of point 3), and then publish an article/book presenting the issue in a complementary manner. Expansion of the content on the issue of participation of other entities indicated above - in the form of a separate article or chapter of a scientific publication - should be perceived as worthy of consideration. In addition, it would be worth considering the creation of a comprehensive, holistic study taking into account both the military content and, to a broader extent, the procedures of other (non-military) entities.

CZECH REPUBLIC

In the Czech Republic, there are no comprehensive publications concerning education in the scope of procedures related to unexploded ordnance and other military explosives. At the same time, there are no special regulations on this topic. These issues are only marginally mentioned in various textbooks or strategies. In terms of content, however, they focus more on rules related to protection in emergency situations.

The scientific literature on military explosives and the related safety procedures and preventive measures in the Czech Republic is very limited. Relevant gray literature is also almost non-existent. The few existing works on the subject are mainly student papers that discuss specific procedures for dealing with unexploded ordnance and unexploded shells

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

(Bradáč, 2012; Zikmund, 2012), but may not be particularly relevant to the topic of safety education. More sources can be found in the reference section.

SLOVAKIA

Slovakia's explosives-related legislation is supported by a series of laws, decrees and government regulations:

- Act of the National Council of the Slovak Republic No. 58/2014 of February 4, 2014 on explosives, explosive articles and ammunition and on amending and supplementing certain laws,
- Act of the National Council of the Slovak Republic No. 331/2015 of November 12, 2015 amending and supplementing Act No. 58/2014 Sb. on Explosives, Explosive Articles and Ammunition and amending Act No. 58/2014 Sb. on Explosives, Explosive Articles and Ammunition and amending Act No. 58/2014 Sb. on Explosives, Explosive Articles and Ammunition,
- 455/1991 Coll. on commercial licensing business activities (Trade Licensing Law), as amended,
- Act No. 190/2003 Coll. on firearms and ammunition,
- Decree of the Ministry of Economy of the Slovak Republic No. 343/2014, dated October 20, 2014, establishing conditions for the transport and movement of explosives, explosive articles and other dangerous explosives ammunition at the premises of an authorized person,
- Decree of the Ministry of Economy of the Slovak Republic No. 344/2014, dated December 1, 2014, regulating details of professional competence in working with explosives, explosive objects and ammunition,
- Decree of the Ministry of Economy of the Slovak Republic No. 288 /2015 of June 8, 2015, establishing requirements to ensure health and safety in the production and processing of explosives, explosive items and ammunition, search for unexploded shells and unexploded ordnance, ammunition, and storage conditions for explosives, explosive items and ammunition.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Based on publicly available sources and literature, it was found that fewer authors directly address this issue, even in general terms.

2) Rules of conduct in case of finding hazardous materials, unexploded ordnance or other materials of military origin

POLAND

Considering the current regulations, it should be emphasized that the introduction of the Ordinance of the Council of Ministers of September 26, 2023 on the clearance of areas from explosives and hazardous materials (Journal of Laws 2023, item 2286) should be regarded as crucial after 3 years of proceedings. It clarifies many issues not previously regulated. However, the current state of the law leaves some issues unsatisfied. One issue is the delineation of the tasks of the Armed Forces and private entities conducting sapper services. The provision "*perform the clearing of land from found explosives and hazardous materials of military origin in situations when it is necessary to ensure public safety and when it is not possible for entrepreneurs [who perform the work of clearing land from materials on the basis of a contract concluded with the entity that holds legal title to the land, the entity that disposes of the land] to destroy these materials"]* in our opinion remains imprecise. The necessity of ensuring public safety is difficult to assess and ambiguous; in addition, the entity that would be responsible for this is not indicated. As the Association of Land Clearing Entrepreneurs also points out, the state regulations also lack information on what basis an entrepreneur can conduct land clearing business (concession, permit or entry in the business register). It seems recommended to introduce the obligation to hold a governor's permit for the use of explosives for civilian use as a basic requirement for entrepreneurs conducting land clearing activities. In addition, it has not been determined what the rules should be for allowing people to work in the field of land clearing (whether these people should have a license, police opinion, psychological examination, etc.).[6] In the case of military vehicles, the rules for transporting found explosives and hazardous materials to the site of their destruction are strictly defined. However, there are no such provisions for civilian vehicles. Questions that arise include their status as privileged vehicles or the procedures for reporting transports and pilots to the police. It is to be believed

[6] For comparison - such requirements are set forth in the Act of June 21, 2002 on explosives for civilian use (Journal of Laws of 2002, No. 117, item 1007, as amended).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

that the indicated regulation will improve the situation regarding the designation of sites for the destruction of found explosives and hazardous materials. Such an obligation was imposed by law on provincial governors (in consultation with the Head of the Inspectorate of Support for the Armed Forces), but in some provinces there are still no such places designated. Referring to all of the above comments, it should be emphasized that they do not critically affect the process itself and the safety of the public. Nevertheless, a comprehensive analysis of the legal solutions would be recommended. The biggest inconvenience of the regulation currently appears to be § 13 of the regulation, stipulating that it does not enter into force until 9 months after the date of promulgation. The legislator, indicating the need to prepare the system for the provisions of this legislation, has refused to shorten this deadline. One should only trust that the regulation will not be withdrawn at the time indicated above.

CZECH REPUBLIC

According to the Law on Firearms and Ammunition (Zákon č. 119/2002 Sb., o střelných zbraních a střelivu, 2002):

- Anyone who has found ammunition or explosives is obliged to immediately notify the nearest police officer or police unit or municipal authority of their finding, which shall inform the nearest police unit. The authority that receives such information shall issue a document confirming this fact.
- Found ammunition or explosives and ammunition or explosives abandoned by the owner become the property of the state. If the found ammunition or explosives pose an immediate threat to the life, health or property of people, the police shall ensure their destruction.

At the time of writing this elaboration, however, the legislation is undergoing changes, as the government has submitted a new law to the parliament specifically on ammunition (Vláda ČR, 2023). The goal is to modernize the current legal framework and eliminate the existing loopholes (Hrbáček, 2022). Among other things, the law details procedures for dealing with found ammunition.

UKRAINE

In order to promptly respond to the detection of explosive objects (hereinafter referred to as EO) on the territory of Ukraine, the pyrotechnic units of the State Emergency Situations

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Service of Ukraine (hereinafter referred to as SES) on the territory of Ukraine, the pyrotechnic units of the State Emergency Situations Service of Ukraine are guided in their daily activities by the Law of Ukraine "On Mine Action", the resolutions of the Cabinet of Ministers of Ukraine "On regulation of work in the scope of detection, protection and removal of explosive objects" (dated December 11, 1999, No. 2294), "On approval of the rules for marking the danger of mines and explosive objects as consequences of the spread of war" (dated April 17, 2019, No. 372), "On approval of the procedure for training the population in emergency situations" (dated June 26, 2013, No. 444), "On Approval of the Procedure for Disposal of Rockets, Ammunition and Explosives" (dated June 7, 2006, no. 812), Joint Order of the Council of Ministers of Ukraine dated June 26, 2013, no. 444), "On Approval of the Procedure for Disposal of Rockets, Ammunition and Explosives" (dated June 7, 2006, no.) 812), a joint order of the Ministry of Internal Affairs of Ukraine and the Ministry of Defence of Ukraine "On Approval of the Procedure for the Implementation of Urgent Measures to Ensure the Security (Disposal) of Explosive Objects on the Territory of Ukraine and the Organization of Interaction during their Execution" (dated December 21, 2022, No. 833/443), the Order of the SES of Ukraine "On the Procedure for Incorporating the Operational Response Zones of the Territorial Authorities and the Responsibility Zones of the Emergency Response Units of the Central Subordination of the Operational Rescue Service of the Civil Protection of the SES of Ukraine" (dated May 5, 2021, No. 277) and the Decree of the Ministry of Emergency Situations of Ukraine "On Approval of the Instruction on the Organization and Conduct of Demining Operations on the Territory of Ukraine by Units and Specialized Enterprises of the Ministry of Emergency Situations" (dated September 20, 2010, No. 791).

SLOVAKIA

A number of documents in the scope of procedures in the event of finding hazardous materials were analysed. For the civilian sector, Law No. 58/2014 of 4.2.2014, amending the Law on Explosives, Explosive Articles and Ammunition and Amendments and Supplements to Certain Laws, is in effect.

The law introduces and regulates:

– rights and duties of persons in the field of explosives, explosive articles and ammunition,

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

- conditions for the use of explosives and explosive articles,
- conditions for scientific research, development, experimental production, manufacture, processing, acquisition, transportation, storage, registration, testing, development, disposal, destruction and damage of explosives, explosive objects and ammunition, as well as devices for the use of explosives,
- conditions for inspection and repair of munitions, search for unexploded ordnance and humanitarian demining,
- competencies of state administrative bodies in the scope of explosives, explosive objects and ammunition.

3) Institutions responsible in the Carpathian part of the country for the removal of hazardous materials, unexploded ordnance or other materials of military origin

POLAND

Clearing areas of explosives and hazardous materials is performed by two types of entities:

1. private entrepreneurs,
2. specialized organizational units of the Armed Forces of the Republic of Poland.

Direct contact with companies offering such services has shown that they mostly do not operate locally or even regionally, but nationwide.[7] The services offered by the companies can also be implemented in the Carpathian part of the country.

Clearing of areas of explosives and hazardous materials of military origin may be performed by the Armed Forces of the Republic of Poland. In broad terms, the clearing of areas from explosive and dangerous objects is planned, organized and coordinated by the Chief of the Military Engineering Board of the General Command of the Armed Forces. At the national level, the Head of the Central Coordination Centre for Demining of the Central Coordination Centre for Demining is responsible for directing and coordinating the activities of sapper patrols and demining teams of diver-miner groups. It supervises and monitors the system of intervention clearing, maintains and improves the capacity to support the activities of patrols in terms of technical and information technology in the performance of their tasks. It is on standby

[7] Explosives and hazardous materials clearance technician is a regulated profession, which means that it can be practiced only after meeting certain state requirements (the requirements are strictly defined in the case of materials of non-military origin, in the case of military origin there are problems of interpretation).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

to perform tasks of specialized support for clearing the area of explosive and dangerous objects at home and abroad. It is an advisory body in the field of recognition and neutralization of explosive and dangerous objects to the Military Engineering Board. The activities of the Central Mine Clearance Coordination Centre are carried out by specialized subdivisions of the Army Engineering Board.

Within the scope covered by the study (removal of unexploded ordnance and other explosives of military origin) is mainly the work performed by sapper patrols. Currently, there are 46 sapper patrols and 2 groups of frogmen miners within the Armed Forces.

With regards to the above, it would be recommended to analyse the workload of individual sapper patrols in the region, and then develop solutions for their possible strengthening.

CZECH REPUBLIC

In the Czech Republic, pyrotechnic activities, including the handling of unexploded ordnance and other military explosives, are mainly carried out by the Czech Republic Police Pyrotechnic Service, a highly specialized force with a republic-wide remit (Policie ČR, n.d.). Police ammunition pyrotechnicians have several regional offices, including in Frýdek-Místek and Brno, which are closest to the Carpathian region (Tureček, 2014). However, it is presumed that unexploded ordnance or other military explosives have been found. In such a case, it is the local police officers who are called first to secure the area, and then the arrival of police pyrotechnicians is awaited to begin their work.

Outside the Carpathian Mountains, it is former military training grounds such as the Brda that are relatively more prone to the presence of unexploded ordnance. Particularly in the Brdy area, pyrotechnicians from the army and military police periodically take steps to clear the area of explosive remnants.

UKRAINE

The work of detecting and removing explosive objects (EO) on the territory of Ukraine by the units of the State Emergency Service of Ukraine (SES) is carried out in accordance with the division specified in the Order of the SES of Ukraine "On the Procedure of Engagement,

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Operational Response Zones of Territorial Authorities and Responsibility Zones of Emergency Response Units of the Central Subordination of the Operational Rescue Service of Civil Protection of the SES of Ukraine".

In addition, it is worth noting that the engineering units of the Armed Forces of Ukraine, the National Guard of Ukraine and the State Special Transport Service, as well as the services of the Ministry of Internal Affairs of Ukraine for the disposal of explosives, are also involved in conducting demining operations on the Ukrainian territory.

SLOVAKIA

The main institution throughout the country in the event of the discovery of hazardous materials, unexploded ordnance and other materials of military origin is always the Police Corps of the Slovak Republic or its professional personnel trained for this activity - police pyrotechnicians.

In the case of larger-scale finds, but also during various professional works and advanced training of pyrotechnicians, the police may also ask for assistance from members of the OSSR, military pyrotechnicians or engineering units and the like. In each case, however, it depends on the specific cases and difficulties or the need for other forces to cooperate.

Exploration of ammunition and pyrotechnic testing can also be carried out by a selected operator with the necessary permit (license). These selected operators are mainly used in (though not only) the Carpathian part of the country to survey the terrain and subsoil during larger-scale construction and landscaping activities, and since they can also provide pyrotechnical supervision during these activities, they quickly increase workplace safety and minimize the possible risk of emergency situations through their actions. Such prevention and investigation activities also speed up the implementation and completion of a possible construction project, since any discovery of munitions and military materials, for example, during such construction work, causes time delays and thus additional unexpected financial costs for the contractor.

Law No. 58/2014 Coll. on Explosives, Explosive Articles and Ammunition and Amendments and Supplements to Certain Laws regulates the rights and obligations of authorized persons who engage in the business of explosives and explosive items. The law also regulates the prohibition of home production of ammunition and ammunition parts from

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

commonly available chemicals; the storage, transportation and use of explosives, explosive articles and ammunition, as well as research, technical development and professional competence in handling explosives, explosive articles and ammunition. Comprehensively regulates the rights and obligations of legal entities and individuals in the field of explosives, explosive articles and ammunition, including the basic rules for ensuring the safety of persons and property.

4) Promotion/education campaigns on the rules of conduct in the event of finding hazardous materials, unexploded ordnance or other materials of military origin (including examples of campaigns of national and regional scope, i.e. undertaken in the Carpathian part of the country)

POLAND

The analysis indicates that educational and promotional campaigns and even simple outreach activities are carried out to a very limited extent. This applies to both the national and regional - Carpathian levels. Despite the huge scale of the potential threat, the problem of unexploded ordnance and unexploded bombs remains marginalized. Institutions, despite the casualties and injuries, do not see the phenomenon of the threat of unexploded ordnance and unexploded shells as crucial in terms of their security education policy. Understandably, priority is given to traffic safety, the dangers of stimulants or safety on bodies of water, but among the topics taken up in the educational sphere, the threat of terrorism, pandemics or the safety of seniors in the broadest sense has been gaining much more popularity. In addition to state or local government institutions, one would expect widespread awareness campaigns by associations and foundations. However, such activities are practically non-existent or not visible at the regional level. According to the authors, this is related, among other things, to the allocation of funds for activities in the area of security. An analysis of available programs (Witkac.pl, grants.pl, funds.ngo.pl, eog.gov.pl) clearly shows that projects in the area of cyber security, safety of seniors, health security (pandemics) or justice are currently promoted. The area under study is definitely not one of them. It is therefore recommended to initiate new activities promoting projects in the area of interest in question. Inspiring state and local government institutions is one method of achieving the goal. In the opinion of the authors of the analysis, better results can be achieved as a result of the synergy of military and NGO

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

activities. In the case of the Carpathian area, it is also worth considering the creation of a threat awareness campaign together with partners from Slovakia, the Czech Republic and Ukraine. In the case of the last of these countries, the importance of such educational activities is even more significant due to the ongoing war.

CZECH REPUBLIC

Given that the Czech Republic does not have a significant problem with unexploded ordnance and other military explosives, there are no large-scale organized campaigns to raise awareness of the issue. For example, the Ministry of the Interior does not organize awareness campaigns on the subject. Some educational activities in this regard do take place, however, but mainly on an ad hoc basis, when, for example, police officers, firefighters and other members of the Integrated Rescue System visit elementary schools, discussing the problem of unexploded ordnance and unexploded shells, among other things. However, these visits are mainly conducted by local Integrated Rescue System members who have little experience with explosives. Special prevention activities are carried out by police pyrotechnicians (Zeman, 2020), but their capabilities are limited. In addition, Preparing Citizens for National Defence (POKOS), a subdivision of the Ministry of Defence, carries out educational projects to promote awareness and citizens' willingness to participate in national defence. School visits and other events organized by POKOS also address the topic of safety, including the handling of unexploded ordnance and unexploded shells.

SLOVAKIA

Promotion/education or prevention campaigns regarding hazardous materials, unexploded ordnance or other materials of military origin are not widespread in Slovakia. They occur only to a limited extent, usually as additional media coverage (press, radio, internet, news, reports) when finds occur and have been reported in the media.

The topic is not at the forefront in Slovakia, although police forces have more preventive and educational materials in their programs. More emphasis is placed on fighting crime, not only in the real world, but also in the virtual world.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

5) The role of NGOs

POLAND

Many Polish organizations undertake activities in the field of education. However, the sphere of safety education is not very popular. Even fewer actions are undertaken in the scope of handling the finds of hazardous materials, unexploded ordnance or other materials of military origin**.**

CZECH REPUBLIC

Since the Czech Republic does not have a major problem with unexploded ordnance and other military explosives, as far as the authors of the analysis know, there are no NGOs working on the issue.

SLOVAKIA

Non-governmental organizations (NGOs) play an important role in Slovakia in the prevention, promotion and education of operations when hazardous materials, unexploded ordnance and other military materials are found. They often operate museums with both permanent and temporary exhibitions, where interested parties can learn more about the subject. They are also military history clubs (KVH) or other organizations that organize, for example, camps for children and tourist events, etc.

UKRAINE

The role of NGOs in this regard is significant. During educational activities, the Lviv Regional Main Directorate of the State Emergency Service of Ukraine actively uses printed and audiovisual materials of the United Nations Children's Fund (UNICEF). All audiovisual and methodical materials used by emergency workers during educational activities, developed by UNICEF, can be found on the website "Spilnoteka" at the following link: https://spilnoteka.org/ and "BezpekaInfo" at this link: https://bezpeka.info/.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

II. ANALYSIS OF CURRICULA AT THE ELEMENTARY SCHOOL LEVEL

The curriculum in state elementary schools has been analysed. The analysis included teaching safety procedures and rules of conduct in case of contact with hazardous materials, unexploded ordnance or other materials of military origin.

1) Approach to the topic of "safety procedures and rules of conduct in case of contact with hazardous materials, unexploded ordnance or other materials of military origin" for the purposes of the curriculum

POLAND

The core curriculum is defined in the Regulation of the Minister of Education and Science of August 1, 2022, amending the Regulation on the core curriculum for kindergarten education and the core curriculum for general education for elementary school, including for students with moderate or severe intellectual disabilities, general education for an industrial school of the first degree, general education for a special vocational school and general education for a post-secondary school (Journal of Laws, item 1717).

At the second educational stage, which includes grades IV-VIII, the following subject, among others, is implemented: education for safety. *"Education for safety serves to prepare students for appropriate behaviour and appropriate responses in situations that pose a threat to health and life and in emergencies [...].* In terms of preparing for rescue operations in emergency situations (mass accidents and disasters), the student recognizes hazards and their sources, knows the rules of conduct during a fire, a traffic accident, during a threat of flooding, in the event of a construction disaster, a gas leak from the installation in a residential building, finding an unexploded shell or unexploded ordnance, the threat of an avalanche, an intense snowstorm.

The topic of hazards and procedures for hazardous materials is implemented at educational stage II (GRADE VIII) within the subject of safety education in the dimension of 1 hour per week.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

CZECH REPUBLIC

There is no mention of unexploded ordnance and other military explosives in the educational framework or in prevention programs and campaigns. Preparing citizens for national defence is an integral part of the Czech Republic's defence planning (MO ČR, 2019). With the new security and defence strategies (MFA CZ, 2023; MO ČR, 2023), citizen participation in defence is becoming increasingly important. In peacetime, it is voluntary and takes the form of education, mainly in schools. In particular, it is to include medical preparation, preparation for civil defence, as well as self-defence, recreational activities related to sports, etc. (Zákon č. 222/1999 Sb. o zajišťování obrany České republiky, 1999).

The Ministry of Defence is primarily responsible for preparing citizens for national defence. Its subdivision, POKOS (Preparing Citizens for National Defence), is tasked with supporting and conducting educational activities in this regard. POKOS activities include publishing textbooks, organizing educational events and competitions, supporting other organizations, etc. However, POKOS's role is only complementary, as primary and secondary schools are expected to play a leading role in this regard. Since 2013, the preparation of citizens for national defence has been formally included in the educational framework program for elementary schools, particularly in the civics curricula (MŠMT ČR, 2023). However, a few years ago, the topic was treated only superficially in more than half of the cases (Česká školní inspekce, 2016).

SLOVAKIA

In Slovakia, unexploded ordnance and other military explosives are not mentioned in educational or prevention programs and campaigns. Now the subject of "Protection of Life and Health" has been upgraded to include "Targeted Exercises" ("Účelové cvičenie"), which are conducted outdoors. During these activities, students practice first aid and go through procedures or practice various safety hazards and situations. However, even during these exercises, the issue of safety and procedures regarding hazardous materials, unexploded ordnance or other materials of military origin is not discussed in detail.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Often, this work is supplemented by a visit from members of the Slovakian police or fire and rescue service, where various demonstrations and discussions are held.

The *"Protection of Life and Health" curriculum* is taught in elementary schools (second level of education). Teaching time is 2x5 hours per year from fifth to ninth grade.

UKRAINE

Ukraine is on the list of countries most contaminated by mines: about 30% of its territory is potentially dangerous due to explosive objects. The UN Human Rights Monitoring Mission in Ukraine has confirmed that landmines and other explosive objects have caused 100 child casualties between February 24, 2022 and July 30, 2023. With this in mind, the United Nations Children's Fund (UNICEF), together with the Ministry of Education and Science of Ukraine, is developing a workshop on mine safety so that every school-aged child knows the rules of protecting life and health. In addition, an online course on teaching safety to children of different age groups will be available for teachers.

A guide with detailed plans for teachers is now available, as well as presentations for mining safety lessons tailored for primary and secondary schools, developed by the United Nations Children's Fund (UNICEF) in Ukraine with partners. In 2023, more than 5,000 teachers, social workers and representatives of public organizations already received UNICEF training on child safety in mines. Together with partners and the State Emergency Situations Service of Ukraine, they conducted offline and online mine awareness classes for more than 640,000 children in various educational institutions and UNICEF "Together" points for children.

The topic of explosive objects can be discussed in different classes, depending on the curriculum and the age capabilities of the students. Usually it can form part of the life safety program in schools, and it is sometimes discussed in middle school classes (grades 5-9) or high school classes (grades 10-11).

2) Subjects in which the topic of safety procedures and rules of conduct in case of contact with hazardous materials, unexploded ordnance or other materials of military origin is discussed

POLAND

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Subject: Security education - grade VIII - elementary school.

CZECH REPUBLIC

No data available.

SLOVAKIA

The mandatory curriculum "Protection of life and health" is implemented in elementary schools through the subjects of the national curriculum and the content of separate organizational forms - specialized exercises and courses. It uses curricula that were previously part of human and natural protection.

UKRAINE

The topic of explosives is discussed in various subjects and classes, especially when it comes to life safety. The main subjects in which this topic is included in the educational program:

1. Science/biology/chemistry: The study of chemical processes, especially if they involve chemical reactions, can discuss the properties of various substances, including explosives.
2. Physics: The study of energy and the different types of potentially dangerous processes that can cause explosions can also touch on this topic.
3. Fundamentals of life safety/health fundamentals: This is an important subject that usually discusses safety and rules of behaviour in dangerous situations, including working with explosive objects (grade VI and above).

These topics are usually included in the school curriculum and can be discussed in various grades from elementary to high school. For example, basic safety rules are discussed in the elementary grades, and later, in the senior grades, the knowledge is expanded to include more complex aspects.

3) Analysed topic in primary prevention programs

POLAND

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The topic is included in elementary school prevention programs.

It is also implemented within the framework of preventive activities specified in the Plan of Cooperation

The Armed Forces of the Republic of Poland with non-governmental organizations and social partners. Preventive classes on the dangers of unexploded shells and unexploded ordnance are often carried out in the form of cyclical meetings also by local police, firefighters and demining patrol soldiers.

Other initiatives are also available, for example, training in explosives hazards for employees or specialized training in countering chemical, biological, radiological, nuclear and explosive hazards.

CZECH REPUBLIC

In an effort to further increase citizens' readiness outside of the education system, the Ministry of Defence recently increased financial support for registered associations (so-called branné spolky) that offer defence-related recreational activities, such as martial arts, shooting and military history, to a wider audience.

Preparing citizens for national defence is strongly linked to preparing for non-military threats, which is the responsibility of the Ministry of the Interior. However, the two activities should complement each other (MO ČR, 2019). When it comes to civil protection, education in primary and secondary schools also plays a key role. It is further complemented by educational activities undertaken by components of the Integrated Rescue System, such as the fire department (MV ČR, 2020).

SLOVAKIA

Since 1999, the Ministry of the Interior of the Slovak Republic, Emergency Management Section has been publishing the popular and educational periodical Civil Defence ("Civilná ochrana"), a journal devoted to civil protection.

The journal presents up-to-date information on civil protection, critical infrastructure protection and civil emergency planning in the country and the world, discusses issues of the integrated emergency system, and publishes expert papers on radiological, chemical and antibiological (bacteriological) protection and emergency management.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

UKRAINE

One of the important priorities in the activities of preschool education institutions is to ensure safety of participants in the educational process, who are currently suffering from Russian military aggression. The Ministry of Education and Science considers it advisable to carry out a month's worth of work on teaching participants in the educational process in pre-school educational institutions about the danger of mines and explosive objects and emergency actions. The most important thing for all adults who care for early childhood and preschool children should be to control the movement of children outside buildings. Children should not be allowed to walk around without adult supervision. It is mandatory to check the area where walks take place to detect explosive and suspicious objects. The Ministry recommends that educators conduct explanatory work with preschool children on safe behaviour under martial law conditions using various forms of organizing educational activities.

4) Other projects or ventures that include the analysed topic, e.g. safe vacations, safe trips, etc.

POLAND

Information on the analysed subject is placed in the form of instructions, warnings on the websites of government offices of each level (municipal, district, provincial)

CZECH REPUBLIC

Answer in Part III.

SLOVAKIA

According to publicly available sources, at the time of this analysis no schools or extracurricular projects directly address this topic, although it is possible that it is marginally absent from discussions.

Available projects and articles on vacations and trips do not explicitly address the topic under study. The topic is clearly overlooked.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

5) Recommendations of the relevant Ministry of Education

POLAND

The projects. mainly offers of school competitions, as well as materials on handling hazardous materials, are posted on the government's Integrated Education Platform or Szkolnictwo.pl.

CZECH REPUBLIC

Answer in Part III.

SLOVAKIA

On the recommendation of the Office of Civil Protection of the Ministry of the Interior of the Slovak Republic, the Ministry of Education of the Slovak Republic has included "Young Rescuer" training as an elective subject in the curriculum (2005). Extracurricular activities support education through various competitions on the topic of civil protection, such as the art contest "Defender of Emergency Number 112 and Civil Protection" . During the elementary school period, students participate in various competitions, including extracurricular activities.

III. ANALYSIS OF PROGRAMS AND ACTIVITIES OF NGOs ON SAFETY PROCEDURES AND RULES OF CONDUCT IN CASE OF CONTACT WITH HAZARDOUS MATERIALS, UNEXPLODED OR OTHER MATERIALS OF MILITARY ORIGIN

Activity of non-governmental organizations carrying out a wide range of actions in the field of education for safety procedures and rules of conduct in case of contact with hazardous materials, unexploded ordnance or other materials of military origin has been analysed.

Moreover, available programs under which the topic under study can be implemented by schools or NGOs have been considered.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

POLAND

Nationwide, there are more than 18,000 non-governmental organizations included in the databases of the www.ngo.pl portal, which have indicated rescue and security as their area of activity. Volunteer fire departments are also included in this group.

Cross-border and transnational programs involving Poland, Slovakia, the Czech Republic and Ukraine have been analysed. For this purpose, projects in the thematic area of security (safety) have been analysed and project descriptions including: "live bombs", "bombs", "army", "military", "dangerous materials" have been evaluated. Unfortunately, no project met the indicated criteria.

Despite the fact that a relatively large number of Polish NGOs declare activity in the sphere related to safety and rescue, projects related to the analysed topic are not undertaken. To some extent, such a situation is due to the fact that there are no programs available under which projects on handling, hazards related to unexploded ordnance, hazardous materials of military origin could be financed. This situation is intriguing insofar as several spheres of public benefit activities, that is, thematic areas of implementation of public tasks are directly or indirectly related to the analysed topic.

CZECH REPUBLIC

As mentioned earlier, as far as the author is aware, there are no NGOs dealing directly with the subject under study. However, organizations that are involved in safety and security activities have been defined. A large part of the activities is dedicated to war veterans. However, activities are more focused on social assistance to veterans and commemoration of important anniversaries.

A system of shooting trainings is also available to improve the knowledge, skills and abilities of those authorized to use firearms for internal order or security of the Czech Republic, for Group E firearms permit holders. They are organized by the Ministry of the Interior of the Czech Republic.

UKRAINE

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Following the Russian aggression against Ukraine, the number of NGO projects on security procedures and handling explosives has been increasing. The main purpose of such projects is to support those areas most affected by the military aggression.

One such project that is currently being implemented is "Strengthening Public Safety through Community and Emergency Service Interaction in the Communities of Donetsk, Dnipropetrovsk, Zaporizhzhya, Kiev, Luhansk, Mykolayiv, Poltava, Kharkiv, Kherson and Chernigov." The main objectives of the project are:

- Strengthening the capacity of rescue and firefighting teams at the community level,
- Increasing the level of knowledge of community residents about public and personal safety,
- Formation of first aid skills,
- Strengthening mine action awareness and security,
- Strengthening fire prevention awareness and safety.

SLOVAKIA

Programs available in the country that are implemented by schools or NGOs include, among others: MASH 06901 airsoft *military camp*, Michal Strenek's Military *Exposition*, Smrekovica Military Camp for Children. However, the topic of hazardous explosives is not included in the main objectives of the programs.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Opinions on the threat originating from unexploded ordnance and unexploded shells as well as knowledge on handling military explosives in the Czech Republic, Slovakia, Poland and Ukraine. Quantitative survey report

Introduction

Despite the passage of nearly 80 years since the end of World War II, unexploded ordnance and unexploded shells still pose a real threat to the life and health of civilians living in areas where hostilities were conducted. Ammunition depots, mines, artillery shells or aerial bombs from that period are still being found. The passing time makes the civilian population less and less familiar with the subject of the threat from this side. On the other hand, the scale of sapper interventions makes us realize that this is not a marginal topic. This means that the level of knowledge must be maintained at an appropriate level to guard against tragedy.

Moreover, Central Europe has yet again been experiencing war as a result of Russia's aggression in Ukraine. Many commentators concede the fact that the current operations differ only slightly in nature and scale from those of the aforementioned world war. Significant areas of Ukraine, both during and after the hostilities, will be littered with unexploded ordnance and unexploded shells just as they were after World War II.

The reality of the problem and its scale have led the *Regional Institute Foundation*, in cooperation with *the Union of Reserve Officers of Poland*, *the Institute for Security and International Development*, as well as organizations such as: *Detská organizácia FÉNIX Snina* from Slovakia, *Centrum pro bezpečnostní analýzu a prevenci in the* Czech Republic, and *Громадська організація "Народна самооборона Львівщини"* in Ukraine to undertake the project "Education for Security in Procedures for Unexploded Ordnance and Other Military Explosives" pursuant to obtaining funding under the Visegrad Fund.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

In preparation for the development of a formula and scope of educational activities on procedures for unexploded ordnance and other military explosives, a questionnaire was prepared to provide a preliminary diagnosis of the level of feeling of danger originating from unexploded ordnance and unexploded shells, as well as the degree of awareness and knowledge of how to deal with such remnants of warfare when encountering them in the Czech Republic Slovakia, Poland and Ukraine.

This report summarizes the results obtained, providing a picture of the need for intensified educational activities and effective forms of their implementation.

Methodology and implementation of the survey

Three basic thematic areas were determined, in which it was decided to collect responses of respondents from the Czech Republic, Slovakia, Poland and Ukraine:

- Do they feel threatened by unexploded ordnance and unexploded shells, and to what extent?
- How do they assess their knowledge of how to deal with unexploded ordnance and unexploded shells when they encounter them, and what is the level of this knowledge objectively?
- Do they expect educational activities in this area and in what form?

In order to obtain a complete picture of the phenomenon under study, it was assumed that the answers to the above questions would be juxtaposed with such socio-demographic variables of the respondents as country of residence, gender, age, region and size of residence, professional situation and social activity. The latter issue in particular is important in that the participants in the designed educational activities will then pass on the knowledge gained in their own social activities (especially to children and young people).

At the same time, the tool itself could not be too comprehensive, as the time-consuming nature of the survey negatively affects the degree of survey completion, discouraging both participation and contributing to the interruption of completion in the course of answering. It was necessary to reach a compromise between the detail of the measurement, the information obtained, and the accessibility of the survey to respondents. The final result of these assumptions is attached to this report (Appendix 1).

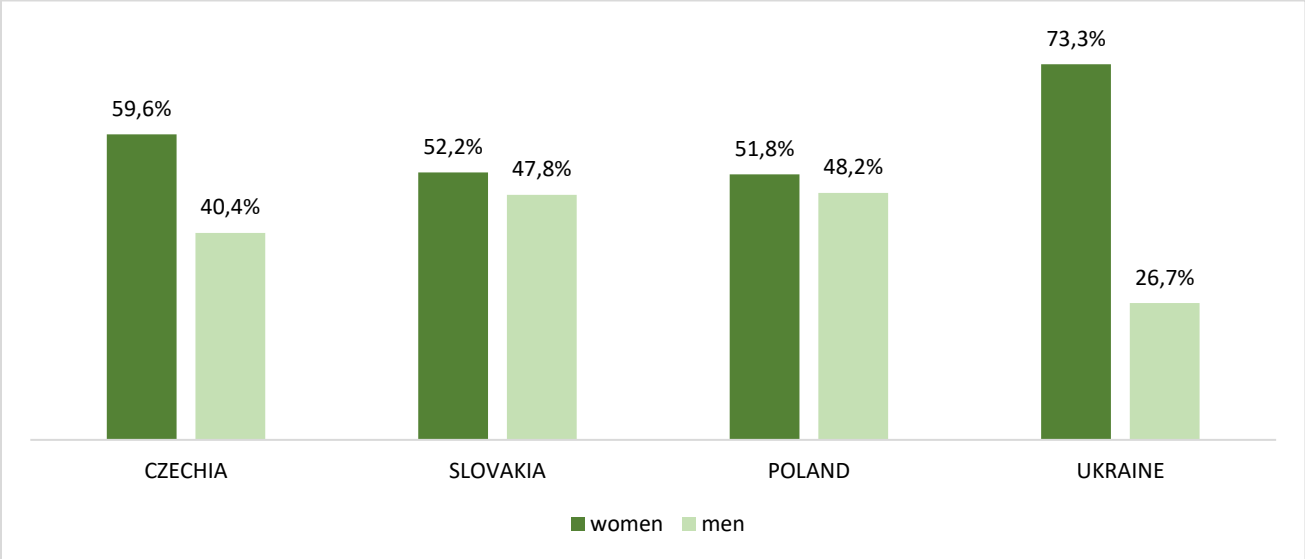
The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The developed questionnaire, after verification by experts representing the project organizations mentioned in the introduction, was translated into Czech, Slovak and Ukrainian. Subsequently, all four language versions were coded into electronic forms of the CSAQ type – Computerized Self-Administered Questionnaire. That is, in the form of electronic questionnaires for self-completion by respondents. The publicly available Google Forms tool was used for this purpose. Links to the different language versions were distributed electronically (email invitations, social media) by the individual organizations involved in the project.

The survey was implemented in the period 19.12.2023-25.01.2024. 522 measurements were collected - frequency tables by measurement country are attached to the report (Appendix 3).

Characteristics of the research samples

213 measurements from the Czech Republic, 90 measurements from Slovakia, 114 measurements from Poland and 105 measurements from Ukraine were collected in the course of the survey. The different national samples differ, as the charts below illustrate in more detail. These differences are due to objective reasons - e.g., the significant predominance of women among Ukrainian respondents, but they are also related to the way the survey was implemented – in general terms, the predominance of respondents in younger age categories (the range of 18-64 years in total).



The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Figure 1. Respondents by gender by country (%)

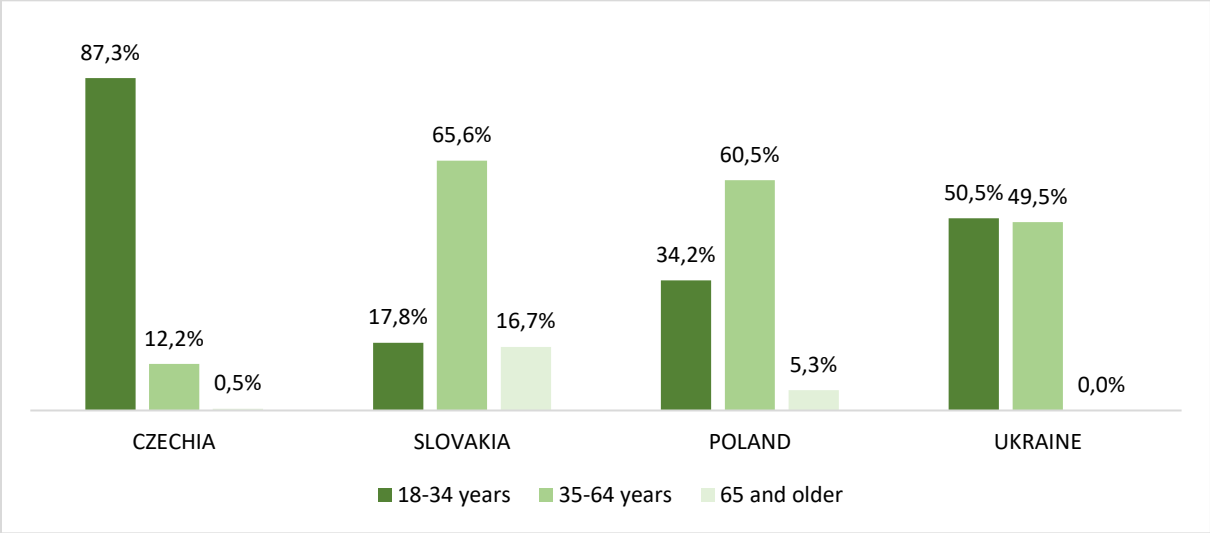


Figure 2. Respondents by age by country (%)

The share of each age category in the national samples translated into the occupational situation declared by the respondents.

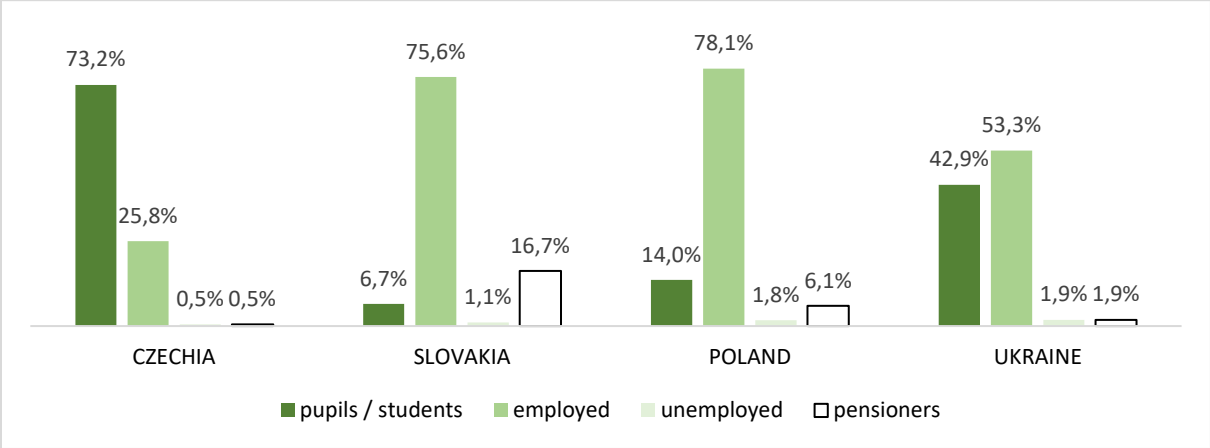


Figure 3. Respondents by work situation by country (%)

The younger samples, i.e., the Czech and Ukrainian, consist of more schoolchildren and students, while the older samples, the Slovak and Polish, primarily concern working people.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

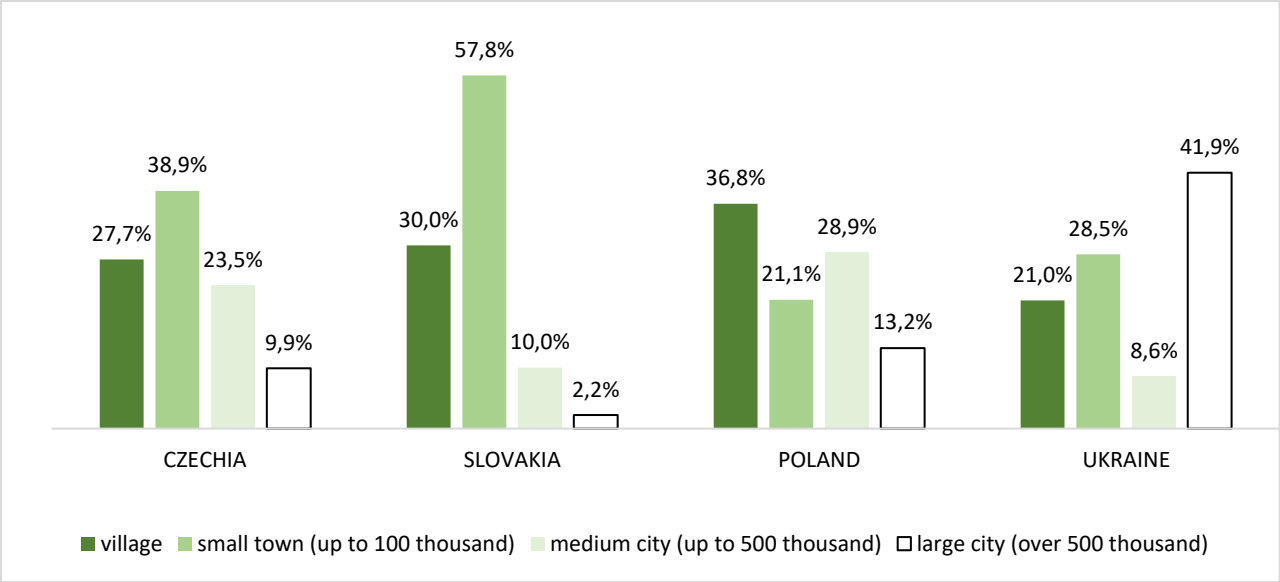


Figure 4. Respondents by size of locality of residence by country (%)

Thus, if one were to generalize these characteristics, it could be said that the following samples:

- Czechs are mainly young learners from smaller towns,
- Slovak people are mainly middle-aged – working, but also older (pensioners and retired persons), living in small towns,
- Poles are primarily middle-aged, working people, residents of small and medium-sized cities,
- Ukrainians are mainly women, studying and working, living in small and large cities.

Keeping these differences in mind, it should be noted that the survey was conducted with a view to include activities designed for the civilian population of all four countries. Looking at the sample in terms of representativeness for the four countries, it can be said that it consists of (all 522 measurements):

- 59.4% of women and 40.6% of men,
- 56.3% of persons aged 18-34, 39.5% of those aged 35-64, and 4.2% of those over 65,
- 42.7% of pupils and students, 51.3% of working people, 1.1% of non-working people and 4.8% of pensioners and retired persons,
- 28.7% of rural residents, 26.3% of residents of cities up to 100,000, 19.3% of residents of cities up to 500,000 and 15.7% of residents of cities over 500,000.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The sample can be considered representative (including representation of each social category) of people aged 18-64, studying or working, living in towns of various sizes.

Because of the project's assumption regarding the transfer of knowledge about dealing with unexploded ordnance and unexploded shells from trainees (adults) to children and adolescents, it is important to determine the degree of social activity of the respondents and confront this variable with the other responses in the questionnaire.

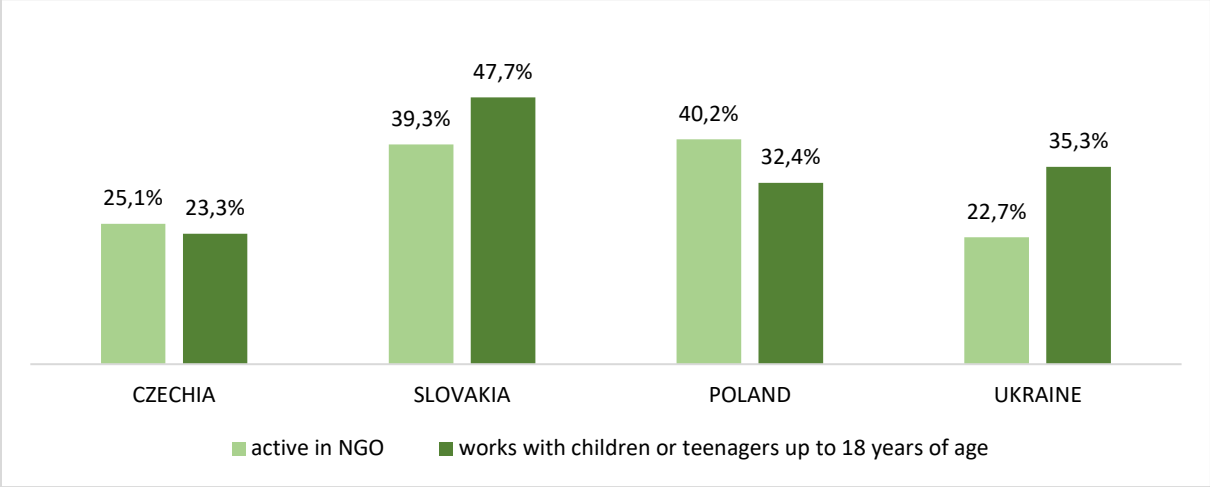


Figure 5. Respondents by social activity by country (%)

Each of the samples included people who are socially involved, including those who work with children or youth under 18. With regards to all measurements (522), 53.4% of respondents are neither active in any social organization nor in activities with children or youth, and 13.9% declared both activities at the same time.

Thus, summarizing the characteristics of the research samples, it can be concluded that the responses in terms of the sense of danger of unexploded shells and unexploded ordnance, the level of knowledge about handling such materials and the expected forms of training in this regard should be confronted with the following socio-demographic variables (keeping in mind the peculiarities of each sample):

- gender (women – men),
- age in the ranges of 18-34 and 35-64 (younger – older),
- work situation (learner – worker),
- size of the place of residence (small towns – large towns),
- social activity (active – inactive).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Each of the above dichotomies introduces a division of the obtained research sample into roughly equal parts, which is particularly convenient for the analysis of variance.

In the following section of the report, the information obtained will be presented first by country, then collectively for the entire research sample, and finally in the context of verification of hypotheses about possible differences related to the proposed socio-demographic dichotomies.

Declared sense of threat of unexploded ordnance and unexploded shells

Respondents were first asked to determine how much, if at all, unexploded ordnance and unexploded shells pose a threat in their country, region and area of residence. On the one hand, this question introduced respondents to the subject of the survey, but it also makes it possible to give a broader context to the answers to the other questions. In general, it can be assumed that there is a correlation between the feeling of danger of unexploded shells and unexploded ordnance and the level of knowledge about appropriate behaviour when encountering such hazardous materials.

The questioners chose on a scale ranging from "definitely a threat" through "rather a threat" to "rather no threat" and "no threat at all," with the option "hard to say on this five-point scale. The chart below shows the summed-up percentages of responses indicating a threat (that is, the first two options).

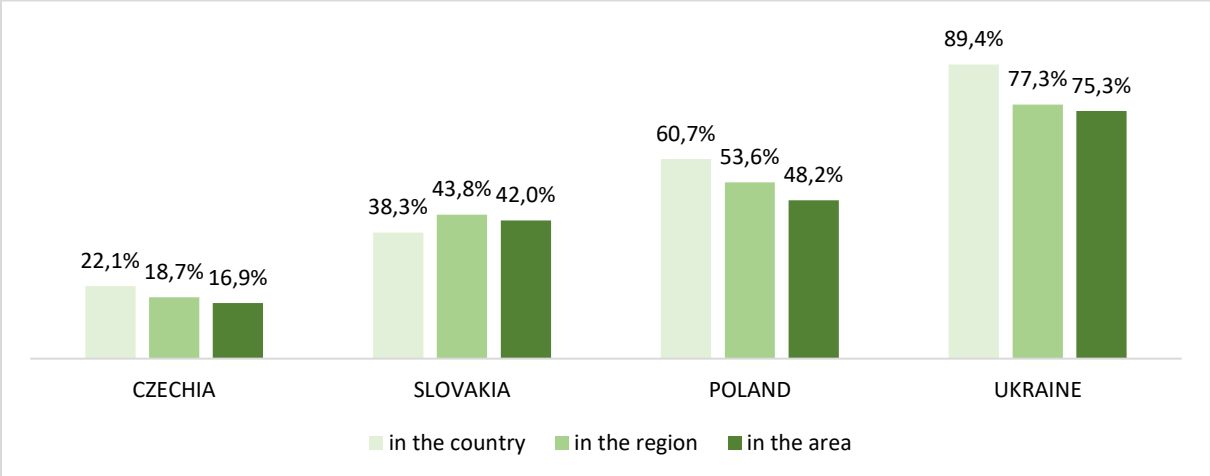


Figure 6. Unexploded ordnance and unexploded shells as a threat at the national, regional and neighbourhood levels by country (%)

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

When analysing the above chart, it should be remembered that the Czech sample encompasses mainly students (younger respondents), while Ukrainian respondents, on the other hand, are confronted on a daily basis (directly - e.g., air raid alarms, in messages from family and friends, as well as in the form of media information) with unexploded ordnance and unexploded shells due to the ongoing war in their country. Here, it should be added that as many as 81.7% of Ukrainian respondents considered this type of threat "definite" in their country. Nevertheless, there is clearly less of a sense of threat of dangerous military materials in the Czech Republic and Slovakia than in Poland.

In general, for most respondents the threat is more theoretical or imagined – more in the country (i.e., "somewhere out there") than in the immediate area ("here at home"). In this respect, the place of residence is perceived as safer, or rather, the threat from unexploded shells and unexploded ordnance at the respondents' place of residence is simply less. Even in the case of respondents from Ukraine.

From the perspective of the designed educational activities, therefore, the key question is about the general feeling of danger from unexploded ordnance and unexploded shells among the surveyed respondents (regardless of the country of survey implementation).

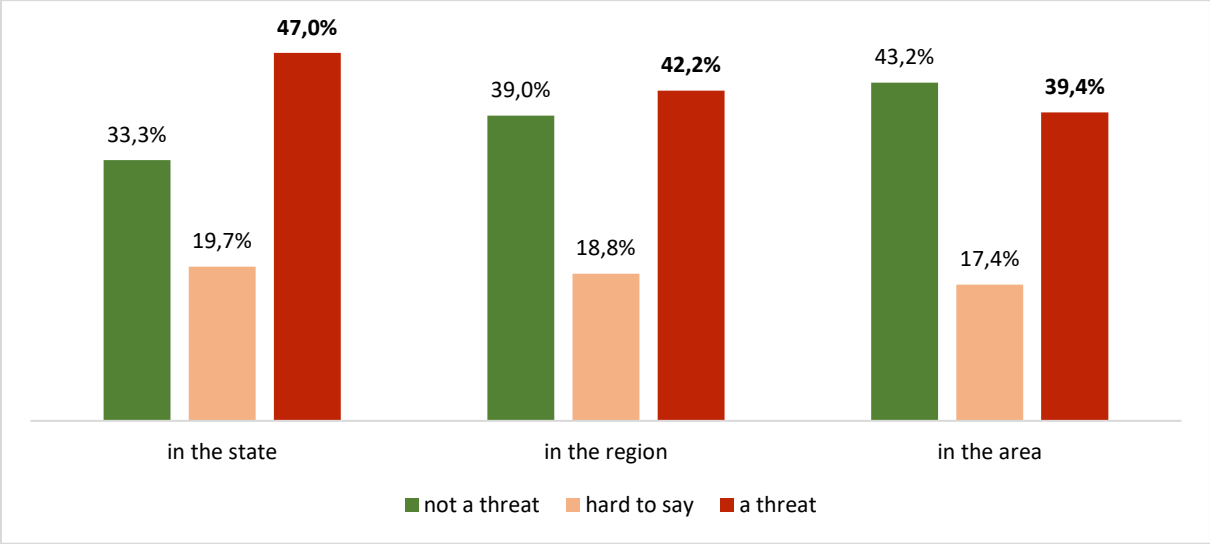


Figure 7. Unexploded ordnance and unexploded shells as a threat at the national, regional and neighbourhood levels of residence TOTAL (%)

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

It is worth noting that among respondents in the surveyed countries – depending on the perspective – from local to national – an average of 40% to 47% of respondents feel threatened by unexploded ordnance and unexploded shells.

Comparison of means (single factor analysis of variances) makes it possible to verify whether the socio-demographic characteristics adopted in the course of characterizing the research samples are related to opinions on the level of threat of unexploded shells and unexploded ordnance.

Table 1. Relation between socio-demographic characteristics of respondents and opinions on the level of threat of unexploded ordnance and unexploded shells

Feature	Description of the relation
sex	only at the country level (imagined threat) the relation is statistically significant ($p < 0.05$) – women are more likely to perceive unexploded shells and unexploded shells as a threat
age	at all three levels: national, regional and local, the relation is statistically significant ($p < 0.05$) – older respondents (35 and older) are more likely to perceive unexploded ordnance as a threat
working situation	working situation is related to the age of the respondents, so here too, at all three levels: national, regional and local, the relation is statistically significant ($p < 0.05$) - working respondents perceive unexploded ordnance as a threat to a greater extent than learners
size of place of residence	size of the inhabited locality has no statistically significant effect ($p > 0.05$) on the perception of threat from unexploded ordnance and unexploded shells
social activity	social activity also has no statistically significant effect ($p > 0.05$) on the perception of the threat of unexploded ordnance

Clearly, opinions on the subject are related to the age of respondents – the younger they are, the more the threat of unexploded shells and unexploded ordnance is abstracted. This confirms the assumption made in the introduction about the sleep-inducing effect of the passage of time on vigilance, which is further confirmed by the distribution of responses in the Ukrainian sample (which is a kind of control sample, where there is an ongoing war and the problem of unexploded ordnance and unexploded shells is real and felt on a daily basis).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The assumption about the need to regularly consolidate knowledge in handling unexploded ordnance is further verified by the variable of exposure to any information on the subject. Respondents were asked whether, in the last 12 months, they had been in contact with instructional materials (online), leaflets / instructions / posters (e.g., in public offices), presentations given by experts (e.g., representatives of the uniformed services), workshops, social campaigns (in the mass media), or information campaigns. If respondents marked "yes" at least once, they were categorized as people in contact with such information. Otherwise, they were coded as those who had not been in contact with such information in the last 12 months.

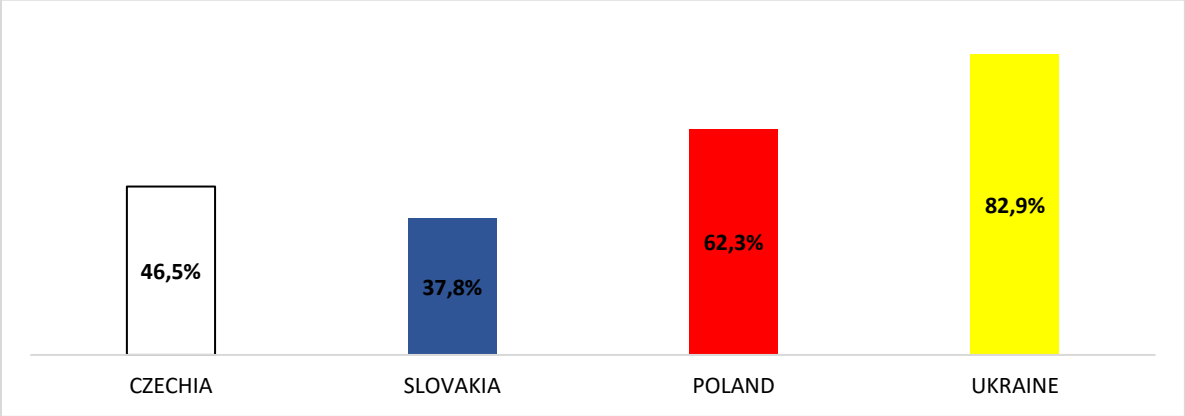


Figure 8. Percentage of respondents declaring to have had any contact with unexploded ordnance materials or information in the past 12 months (%)

Analysis of variances showed that the relationship between exposure (relatively fresh) to materials on unexploded shells and unexploded ordnance and perceptions of them as a threat at the level of both the country, the region and the neighbourhood lived in is statistically significant ($p < 0.05$).

An interesting relationship was revealed - in the case of both the Czech Republic and Poland, younger respondents were more likely to declare contact with information on unexploded shells and unexploded shells than older respondents, while at the same time the issue is more abstract for the Czechs than the Poles. Hence, clearly the proximity of the current armed conflict in Ukraine matters - the threat becomes more real as the distance from hostilities decreases. In other words, indeed, the **passage of time makes the remnants of World War II an increasing threat to increasingly uninformed civilians**.

Level of knowledge about unexploded ordnance and unexploded shells

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

The theme of knowledge about how to act when encountering unexploded ordnance and unexploded shells was broken down into two elements in the questionnaire. First, respondents were asked to assess their own knowledge, and then five types of actions were presented that respondents considered in terms of "must not" - "should". It is worth referring here once again to the variable presented in the previous thread indicating whether respondents had been exposed to any information about unexploded shells and unexploded ordnance in the past 12 months. In the Czech Republic and Slovakia in particular, more than half of the respondents had not encountered such information in the past year. Thus, in the set of variables potentially correlating with the level of knowledge, this variable should also be included.

The distribution of the self-assessment is shown in the chart below, where the "definitely" and "rather" responses were summed into a single category: either "insufficient" or "sufficient."

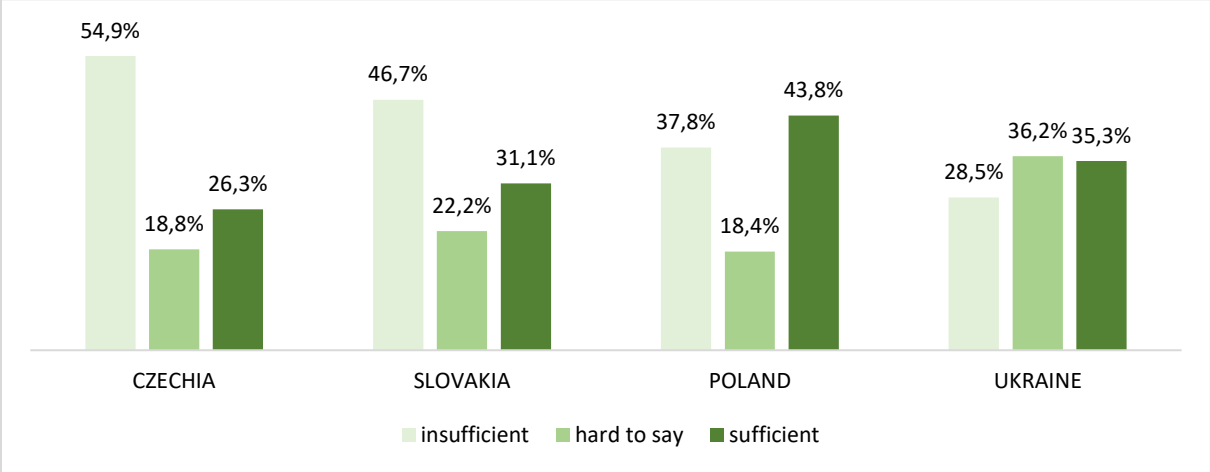


Figure 9. Assessment of own knowledge of unexploded ordnance and unexploded shells by country (%)

The youngest, Czech survey group was most critical of their own level of knowledge on the issue under review, although it was in Slovakia that as many as 31.1% of respondents considered their knowledge to be "definitely insufficient." Respondents from Ukraine - finding themselves in a situation of an armed conflict - were no longer so categorically unequivocal in their positive assessment of their own knowledge of unexploded ordnance and unexploded shells. Frequent contact with the subject and almost daily practice prompted a kind of distance in self-assessment (the lowest percentage indicating "insufficient" knowledge, but at the same time the highest in the "hard to say" category).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Averaging these results for the entire sample (522 measurements), it should be noted that self-assessment is by no means dominated by over-the-top optimism (typical in self-assessment questions, as respondents tend to overstate their own knowledge and skills): 22.8% indicated that their knowledge was "definitely insufficient," 21.6% "rather insufficient," 22.8% "hard to say" (making a total of 67.2% - two-thirds of the respondents!), and only 17.6% "rather sufficient" and 15.1% "definitely sufficient."

In the next step, it was checked by the procedure of comparing means (analysis of variance) whether there are variables that determine the level of self-esteem. The following table summarizes the results.

Table 2. Variables potentially differentiating self-assessment of the level of knowledge about unexploded ordnance and unexploded shells

Feature	Description of the relation
sex	The relation is statistically significant ($p < 0.05$) – women are more critical of their knowledge in this scope
age	The relation is statistically significant ($p < 0.05$) – younger respondents (under 34) are more critical of their knowledge in this scope
working situation	The relation is statistically significant ($p < 0.05$) – learners are more critical of their knowledge in this scope
size of place of residence	The relationship is statistically significant ($p < 0.05$) – residents of larger towns (over 100 thousand) are more critical of their knowledge in this scope
social activity	The relation is not statistically significant ($p > 0.05$) – this variable does not differentiate self-esteem
exposure to information on the subject	The relation is statistically significant ($p < 0.05$) – respondents who have not been exposed to any information on unexploded ordnance in the past 12 months are more critical of their knowledge in this scope

As mentioned, the questionnaire did not include only self-assessment. Respondents were presented with five hypothetical behaviours (striving to maintain the style of formal instructions), asking them to determine whether it is possible or not to behave in a given way when encountering unexploded shells or unexploded ordnance.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 3. Instructions presented in the questionnaire with indication of correct answers

Instructions	DON'T	DO	REASONING *(not visible to respondents)*
Check for further unexploded ordnance or unexploded shells in the immediate vicinity, if possible	✓		*There may be other unseen unexploded ordnance or unexploded shells in the area - a risk to life and health*
Move the found unexploded ordnance or unexploded shell to a safe, secluded location	✓		*Obvious risk to life and health*
Notify the police or call the emergency number 112		✓	*Official instruction – notify the appropriate services and move away from the danger area to a safe distance*
Secure the area and ensure that no one approaches the found unexploded ordnance or unexploded shell	✓		*Official instruction – notify the appropriate services and move away from the danger area to a safe distance*
Make a solo attempt to detonate an unexploded ordnance or unexploded shell so that it does not pose a danger to bystanders	✓		*Obvious risk to life and health*

The responses obtained were recoded so that each correct indication scored +1, while each incorrect one received -1. The scores for the respondents were then summed up.

The maximum score was obtained by: 6 respondents in the Czech Republic, 6 respondents in Slovakia, 3 respondents in Poland and 2 respondents in Ukraine, respectively. In other words, on average, **more than 96% of respondents made at least one mistake! In the case of unexploded shells and unexploded ordnance, such a single mistake proves critical. And that mistake most often was: "securing the area and ensuring that no one goes near the found unexploded shell or unexploded ordnance" (as many as 94.5% of the 522 respondents indicated that they MUST do so) and "checking for further unexploded shell or unexploded ordnance in the immediate vicinity" (34.6% of the 522 respondents thought that they MUST do so)**.

The instructions proposed in the questionnaire deliberately emphasized the safety of others, bystanders. However, it should be emphasized that the official procedure for dealing with the situation includes a clear and unambiguous instruction to immediately move away from the danger area. Continuing to remain in the area of an unexploded shell or unexploded ordnance find is simply putting oneself in danger of not only this visible, found hazardous material, but

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

also of potential other, unseen unexploded shell or unexploded ordnance. The issue of securing the area is the responsibility of properly trained services, not the civilian population.

Table 4. Variables potentially differentiating the final result of the test for handling unexploded ordnance and unexploded shell

Feature	Description of the relation
sex	Statistically insignificant relation (p > 0.05) - mistakes made to the same extent by representatives of both sexes
age	Relation not statistically significant (p > 0.05) - mistakes made to the same extent by people of different ages
working situation	Statistically insignificant relation (p > 0.05) - mistakes made to the same extent by learners as by workers
size of place of residence	relation not statistically significant (p > 0.05) - mistakes made to the same extent by residents of smaller and larger towns
social activity	Relation not statistically significant (p > 0.05) - mistakes made to the same extent by active and inactive respondents
exposure to information on	Statistically insignificant relation (p > 0.05) - errors made to the same extent by those who have been exposed to relevant information in the last 12 months and those who have not had access to such information in the last year
self-assessment of knowledge	Statistically insignificant relation (p > 0.05) - mistakes made equally by those who are critical and those who are good at assessing their knowledge of unexploded ordnance and unexploded shell

Hypothetically, it can still be assumed that better aggregate scores on this minitest of knowledge were obtained by respondents from Ukraine. However, analysis of variances showed that also the variable "country" did not statistically significantly differentiate the mean of the results. In other words, respondents in Ukraine also made the same mistakes as the rest of the respondents in the countries where there is no war.

The above results demonstrate the urgent need to develop and implement appropriate educational activities on dealing with unexploded ordnance and unexploded shells in the Czech Republic, Slovakia, Poland and Ukraine. Moreover, they prove that such educational activities should emphasize, as much as possible, the practical aspects of

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

how to behave when encountering unexploded ordnance and unexploded shells. It is particularly important to practice the procedure for dealing with various scenarios (including "taking care" of the safety of bystanders).

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Expected educational activities - conclusions

The third area included in the questionnaire concerned the preferred forms of implementation of the designed educational activities.

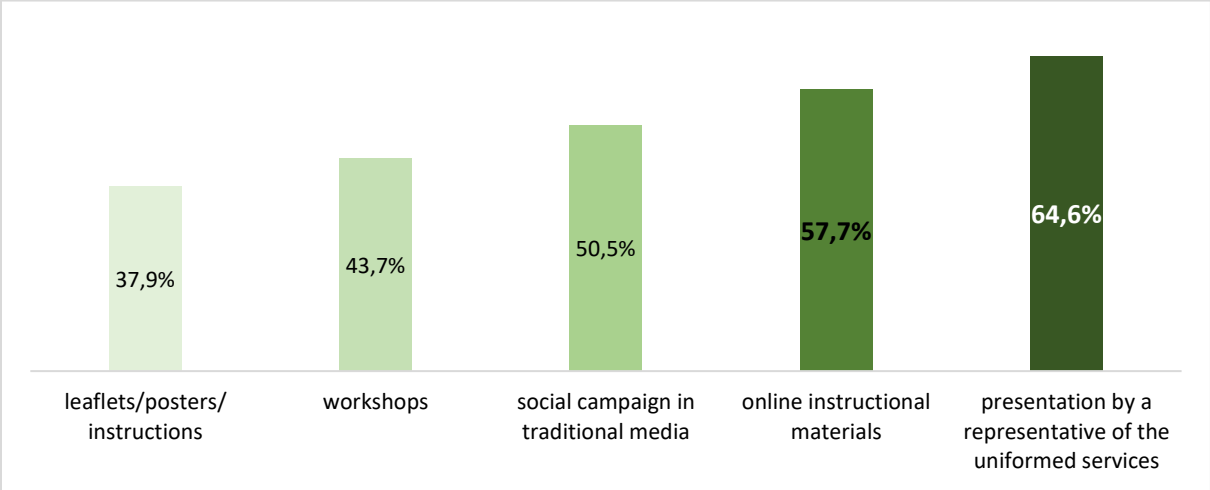


Figure 10. Forms of implementation of the designed educational activities

Analysis of variance showed that the level of interest in educational activities (actually, regardless of their form) is statistically significantly ($p < 0.05$) higher among those respondents who have been exposed to any information and materials on unexploded shells and unexploded ordnance in the past 12 months. In other words, if one has come into contact with the subject matter under analysis in the recent past, he or she is more interested in further training in this area. In contrast, those who have not been exposed to information on unexploded ordnance and unexploded shells for a long time are less likely to show interest in educational activities in this area.

These results indicate that leaving the issue of regular refreshing and replenishing of knowledge in such a socially important area solely to individual preference can lead to the perpetuation of areas of unawareness and ignorance – the reasonably knowledgeable will continue to train, while the uninformed will continue to be stuck in ignorance. This is all the more dangerous because the conducted minitest of practical knowledge showed that almost all potential recipients of such training made at least one mistake – in good faith, but with real consequences for their life and health.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Returning to the forms of educational activities themselves, they should primarily combine two features:

- they should be presented by representatives of the uniformed services (something like legitimization through the uniform),
- they should be publicly available online.

However, if the issue of at least partial control over the dissemination of content signalled here is taken into account, such materials should form the core of direct actions, especially among children and young learners. It is difficult to expect representatives of the uniformed services to arrive at every workshop or training carried out in educational institutions, but already the reproduction of appropriate short training material, where the content is presented by a uniformed expert, is most feasible. It introduces an element of multimedia and dynamizes the designed meeting. At the same time, such material is available online, so training participants can return to it and, for example, refresh their knowledge.

Online availability also makes it possible to automate the process of replenishing knowledge and regularly consolidating information. Civil defence training and drills are a thing of the distant past, but nevertheless there is nothing to prevent this type of educational material from being part of classes on security in the broadest sense in the formal education process. Individual yearbooks can only expand and deepen their knowledge, supplementing it with additional components, as needed.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Opinions on the threat posed by unexploded ordnance and unexploded shells and expectations towards educational activities in the scope of handling military explosives in the Czech Republic, Slovakia, Poland and Ukraine. Qualitative research report

Introduction

Within the framework of the project entitled "Education for Safety the scope of Procedures concerning Unexploded Ordnance and Other Military Explosives", co-financed by the governments of the Czech Republic, Hungary, Poland and Slovakia under the International Visegrad Fund's Visegrad Grants, four focused group discussions were held with experts on expectations towards educational activities in the scope of handling military explosives.

The project was implemented by the *Regional Institute Foundation,* in cooperation with *the Union of Reserve Officers of the Republic of Poland*, *the Institute for Security and International Development,* as well as organizations such as *Detská organizácia FÉNIX Snina* from Slovakia, *Centrum pro bezpečnostní analýzu a prevenci in the* Czech Republic, and *Громадська організація "Народна самооборона Львівщини"* in Ukraine. In preparation for the development of a formula and the scope of educational activities on procedures for unexploded ordnance and other military explosives, a discussion scenario was prepared, enabling a preliminary diagnosis of the level of the sense of threat from unexploded ordnance and unexploded shells in the Czech Republic, Slovakia, Poland and Ukraine, as well as expectations towards the designed educational activities.

This report summarizes the focus discussions that have been conducted, presenting the perspective of experts who are involved in day-to-day working with children or youth.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Methodology and implementation of the research

Two main thematic areas were set for discussions with experts from the Czech Republic, Slovakia, Poland and Ukraine:

- general opinion on the threat of unexploded ordnance and unexploded shells;
- expectations towards educational activities in terms of their form and content.

The scenario has been attached to this report (Appendix 2). It should be emphasized that, from the perspective of the project's ongoing research, the *Focus Group Interviews* were primarily designed to capture the deeper socio-cultural contexts for interpreting the data obtained from quantitative surveys implemented in 2023/2024.

The developed scenario, after a verification phase by experts representing the project organizations, was translated into Czech, Slovak and Ukrainian. Subsequently, one focus group discussion was held in each of the project countries between March and April 2024. Each discussion was conducted in the national language to avoid any barriers hindering participants' expression. The recorded meetings were then transcribed, which were subsequently translated into Polish and analysed.

Characteristics of the participants in the discussion

Ultimately, 37 experts took part in the discussions:

- 8 during the Czech meeting,
- 10 in a Slovakian meeting,
- 9 in a Polish meeting,
- 10 during the Ukrainian meeting (the organization of this meeting encountered particular difficulties due to the ongoing hostilities in Ukraine in connection with Russia's armed onslaught).

These were people who work with children and young people on a daily basis, including current and former employees of the uniformed services (lecturers at military universities), guardians of scout groups (troop leaders) and activists of non-governmental organizations working in the field of defence and public security. The essence of the carried-out FGIs was to capture the

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

perspective of experts who are involved in the broader issue of security on a daily basis, and at the same time have pedagogical experience.

The analyses presented in the following section are not statistically representative. Such results are presented in the quantitative research report. The experts' perspective allows for a more complete and accurate understanding and interpretation of the results of representative research. At the same time, it makes it possible to grasp threads and contexts that may be omitted in quantitative study. It should be borne in mind that those actively involved in didactic activities towards security statistically constitute only a fraction of the surveyed population, albeit their activity translates into a qualitatively significant impact on the analysed reality.

Declared sense of threat of unexploded ordnance and unexploded shells

Discussions carried out as part of the research began with a question about whether unexploded ordnance and unexploded shells (still – in the case of the Czech Republic, Slovakia and Poland) pose a threat to civilians. The experts' answers coincide with the quantitative results obtained earlier in terms of the scale of opinion depending on the country. For Czech participants in the discussion, dangerous materials of military origin are actually an abstract and definitely secondary threat, while for Slovaks, Poles and especially Ukrainians, they are as real as possible (although associated with different situations).

"Generally speaking, I think so, but there are very few situations where people encounter this in reality. (...) Every now and then some report leaks out, but I think the chances of finding something are very low. (...) From my point of view it is an insignificant threat, we have other problems." [Czech Republic]

However, already in areas where the front line held out for a long-time during World War I or World War II, the problem of unexploded ordnance and unexploded shells is as real as it gets:

"In our region, unexploded ordnance is dangerous. We have evidence or findings. In most cases they are non-functional, but you never know.... It is possible to come across them. That's why they still pose a threat to civilians. Speaking as a teacher, when it comes to hiking trails that are marked, it should be fine there. But if one goes off the hiking trails, one may come across unexploded bombs, because here, in our region, there was heavy fighting during both World

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

War I and World War II. Such unexploded bombs can be encountered, not often, but they can be encountered." [Slovakia]

"I happen to live in such an area, where, unfortunately, I must say that it certainly is the case. In our area, just a dozen years ago, as a result of an unexploded bomb, three out of four children died. Because I live in Dukla. Here in the Low Beskid we had one of the heaviest armoured battles in the main Carpathian range, the front line shifted three times. I myself will say that even my parents three years ago, while picking wild mushrooms, found an unexploded bomb. It happened to be on a Saturday, and the sappers could not arrive until Monday, so the firefighters stood by and watched for it. Also here, in my area, this topic is still, unfortunately, very much current" [Poland].

In the case of Ukraine, the problem is much more topical, due to the current hostilities within the country. The entire area of the country is a bombardment zone, and the intense fighting on the front line is not much different from that during World War I and World War II, including minefields and other forms of defensive lines.

"Yes, of course, even in Lviv, which is far from actual warfare, such items are found from time to time" [Ukraine].

According to experts, the severity of the problem stems from two main sources - the inefficiency of the institutional system for countering this type of threat and the low state of awareness of the civilian population.

"The scary thing for me is that an explosive was found, unidentified, and the firefighters - if it's a small town it's volunteers, because there's no State Fire Service there - had to guard it, because the sapper patrol didn't arrive until 48 hours later, or God forbid even longer. The aspect of keeping it a secret - whether to keep such information a secret from the local community or not? Because if we keep it a secret, then surely someone who "senses" (to use colloquial language) that something is going on will show up, unintentionally encouraged by a patrol placed in the area, be it police or firefighters, waiting for something. The area is fenced off and this curiosity can cause that low awareness can trigger a domino reaction, whereby new problems will arise. That you'll have to struggle a little bit with the proverbial crowd of onlookers, who shouldn't be there, because it's a dangerous area" [Poland].

The inadequate number of specialized military units (sapper patrols) and their resulting dispersion translate into extended response times to possible reports. In such cases, it is

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

necessary to involve other services, sometimes volunteer formations, to secure the area. It should be added that in the quantitative research (the report titled "Opinions on the threat of unexploded ordnance and unexploded shells and knowledge in the scope of handling military explosives in the Czech Republic, Slovakia, Poland and Ukraine: Report on quantitative research", Association for the Development and Promotion of Subcarpathia "Pro Carpathia," Rzeszów 2024) captured a kind of "concern for the safety of third parties" consisting of declared self-protection of the find area from possible onlookers.

The broader context of the lack of a sufficient and effective institutional system is the low-risk awareness and scarce knowledge of unexploded ordnance among the civilian population. The experts stressed that civilian security issues are slowly being truncated and withdrawn from school curricula – and this is a problem typical of all the countries involved in the project.

"I think most of them don't [know how to behave], especially the younger ones. The older ones may still remember it from school, when they had defence education. (...) People generally don't know enough, certainly not the younger generation, because the issue is not systematically introduced into the school curriculum" [Czech Republic].

"I would just like to add that, as has been said, children are the most at risk, especially those who are uneducated in this area, who do not know what they are really at risk of. Therefore, it is very important to promote education when it comes to still active munitions. Because it could be children, but it could also be an adult who unknowingly comes across an unexploded ordnance and doesn't know what to do. He hasn't encountered it anywhere, he has no idea what the danger is, and a big problem can arise from such ignorance" [Slovakia].

"Our generation had something like defence preparation. We didn't have a physical, technical demonstration of an unexploded bomb or unexploded ordnance as part of the education program, but in theory, in pictures, at least my teacher in both elementary school and high school showed and discussed in quite a lot of detail how to behave in such a situation if we were in the woods picking mushrooms with our parents and found something like that" [Poland].

In the case of Ukraine, education is being carried out in real time, parallel to the scale of the threat posed by Russia's actions against civilians. And it has been this way, according to experts, since 2014. Nevertheless, the scale of the need in this regard exceeds ad hoc solutions by far.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

According to the experts, however, even senior civilians, who should theoretically be better educated in the issues under review as part of the old education programs, have a practical problem with how to behave correctly when encountering unexploded ordnance or unexploded shells.

"The problem is still ongoing. Running our organization, we encounter this particular issue very often, when children, young people, as well as adults, do not know what unexploded ordnance is; they do not know how to deal with it. Also, living in the Low Beskid, we observe this problem, when people who have lived there for many years, still do not know how to deal with these unexploded bombs found in the forest. Often, there is an accident where the help of doctors or firefighters is needed" [Poland].

This raises the question of categories of the civilian population particularly vulnerable to danger from unexploded shells and unexploded ordnance. Experts first pointed to children and adolescents, but it should be noted that the issue concerned not only them.

"Definitely children, because when children find something unusual, they bring it home. I remember when I was a boy, maybe 10-12 years old, we used to go to the forest and look for such things. And here, when they were ploughing the field by the road above Stakčín, the whole field was in shells. We found mortars, cartridges, medals and other things, we used to go there to look for such things. So in fact, the children, if they go to the forest, they have to be careful, although nowadays it's not as severe. It used to be a lot of it. But children are the most vulnerable group" [Slovakia].

At the same time, adults were mentioned:

"(...) Workers in the forest. Forest industry workers during logging. Some forestry workers already take another piece as "a trade". They usually put it back in the pile and either report it or don't report it at all. Because that would obviously delay their work and so on. So there is another additional group. They usually don't deal with it in a way that puts them at risk; they just put it in stack, and then when they finish their work in a particular place, they can report it when they have time. And if they don't, they just bury it and cover it with branches so someone can find it" [Slovakia].

The situation described is striking in that there is not only the movement of dangerous finds, but even their accumulation in piles, which in the event of an explosion would multiply the scale of damage. If this was mentioned during the discussion, it could not have been a one-

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

off case, but rather a fairly common practice. An additional argument here was the desire to "save" time by avoiding the cumbersome procedure of professional handling of the hazard. Leaving these piles of unexploded ordnance and unexploded shells without any care or protection (that is, in situations where forestry workers do not even finally report these finds) multiplies the danger for the civilian population. This population may come across such sites while picking mushrooms or walking in the forest.

The Polish expert cited earlier also pointed out the need to involve employees of services such as the Police, the State Fire Service and the Volunteer Fire Service due to the extended travel times of the sapper patrol. Such situations are so rare that it is difficult to imagine that these people have up-to-date knowledge of the correct procedures for dealing with unexploded ordnance and unexploded shells found. The performance of official duties exposes these people to direct danger of hazardous materials of military origin.

In conclusion, it should be emphasized that in the opinion of the experts participating in the discussions (teachers, uniformed services personnel, social activists involved in the issue), this issue is still as relevant as ever. Especially in those areas where intense warfare has taken place. In the case of the Carpathian Mountains - and it's been at least 80 years since those events - these are definitely the areas where the Carpatho-Dukla Operation was carried out during World War II (1944/45), or the battles in the Dukla Pass during World War I (1914/15).

"(...) my parents experienced it themselves and found it. Our firefighters from the TSO when they arrived, it happened to be Saturday afternoon, and my Dad is a retired firefighter, they commented on it this way: "you guys really got us, it would have been better to leave it". So here it's not just about the mentality and attitude of children and young people towards this but, I think, of adults as well. Even my neighbour used to go and collect and keep it all at home. Maybe they weren't unexploded anti-personnel bombs, but when it came to ammunition shells, he had everything at home, including helmets shot through somewhere. Also, well it's also a matter of reaching out, at least in an area like here where I live, to raise awareness, not only among children and young people, but above all, unfortunately, among adults as well. Because people downplay this, as they think that since we are several decades after the war, there is nothing to threaten them. And it can explode all the time. The threat is still very high" [Poland].

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

According to experts, unexploded ordnance and unexploded shells pose a threat to the general civilian population, but the following are particularly vulnerable categories (in a hierarchy from the most vulnerable to those less frequently identified):

- children and adolescents,
- employees of uniformed services supporting the activities of military sapper patrols,
- forestry workers, or
- people walking in the forest (residents of Carpathia and visitors: tourists and day visitors).

Expected educational activities

Experts unanimously indicated that the training needed, in their view, should first respond to the core capabilities of the identified three categories of recipients:

- children,
- youth,
- adults (divided into employees of institutions and industries particularly exposed to the risk of contact with hazardous materials of military origin and others).

"Nothing will appeal to a person more than something practical. In my experience during my professional service, when I was a company commander, this always manifested itself in the fact that if a soldier saw something, practically went through it, he approached it differently. Theory doesn't really give much. Short materials, concise, not overloaded with content, aimed precisely at the right audience, are a good idea. I think that would also be a good way to go. But I say - certain programs would simply have to be created with the participation of professionals. This requires, as I said, systemic solutions." [Poland]

Regardless of the category of audience, the materials developed should be characterized by particular practicality and compactness of the presented content. It is crucial to use the latest digital technologies in both preparation and distribution. Nothing or very little should be left to the imagination, and literalness and detail (even severity) is only an advantage, not a disadvantage, in the case of the subject matter in question.

"The training should show practical procedures and practical examples of how to behave and what to do. (...) Practical examples from the field and some examples of what happens when

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

the rules are not followed. From my point of view, the training should focus on short demonstrations of individual cases, followed by instructions on how to handle the situations. (...) Online course, everything is online nowadays, people can repeat it later (...) but there should be an expert to give the course seriousness" [Czech Republic].

"(...) I would rather say that the emphasis should be mainly on precautions, on procedure, on what to do and what not to do in such a case. Because it's fine to teach someone to report it. But in the meantime, he will play with it, he will investigate it, as was the case recently: the boys found something, they played with it, only then a gentleman noticed that they were playing with some kind of a shell, something bigger like that. He reported it, and they said they would take it home" [Slovakia].

"I am also a team leader of the Polish Scout Association, I lead a team. I'm also a scout troop leader. I don't think there's anything that makes them think more than something that they should clearly see. Not just pure theory, what are the consequences, but just maybe meetings with people who just experienced it unfortunately in person. In our house there is a German teacher who also disarmed them in his youth, fortunately he survived, well, but the guy has a limp and no fingers. So maybe - I know this is very drastic - but this would probably speak the most. In my opinion, at least. That these children would see it, experience it from a person who has lived through an encounter with something like this. So that it's not just a dry theory" [Poland].

However, universal material – in the opinion of the discussing experts - – simply does not exist, and the content characterized above should be presented in a manner appropriate to the age and abilities of the audience. As for children up to the age of 10, it was suggested that emphasis be placed on building general awareness and a sense of responsibility for their own and others' health and lives. Content of a slightly more playful (in message) nature will be aimed at audiences who, however, are under the care of third parties and are relatively uninterested in such finds.

At this point, it should be added that an exception should be made for children in Ukraine. The aggressor uses butterfly mines on a large scale, which are scattered in a given area without any control. At the same time, their design and small size are particularly attractive particularly to children. In addition, the low explosive power of these devices is geared toward maiming rather than killing - the idea is to bring about mass disability that is a burden on health services and society in the long term.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

"I should also be added that it doesn't make sense to explain to 10-year-olds the details of what GPS is and so on, that there are some coordinates, which I don't think 15-16-year-old teenagers have a problem with anymore, rather it is present somehow in their mentality. It should be introduced to them in such a way that they can understand it and not burden them unnecessarily with things they are not yet qualified for" [Slovakia].

A separate and particularly vulnerable category is adolescents. It is them who are most likely to remain unsupervised by guardians for longer periods of time, while becoming increasingly independent in exploring their surroundings. The cases of minors' contact with unexploded ordnance and unexploded bombs (including tragic ones) described by the discussants precisely concerned this age category. In this thread, during the Polish discussion, an interesting suggestion was made to involve children in their teens, who are active in various scout or paramilitary organizations, but also in the Volunteer Fire Department, as ambassadors of the issue. In other words, we may train these young people specifically to share their knowledge and experiences with their peers.

"If I were to take part in such a project, I believe that next to me, at a table, or even together, we could have a discussion precisely with these selected scouts, young people contributing to the St. Florian Foundation, at these TSO units, pursuing their interests, desires, dreams, which later in adulthood they will want to realize. This is because the youth will not then treat us as a group of older people who have gathered to write something, to pass on. The youth will be involved in the message. It seems to me that this is also the right way" [Poland].

Training materials of a similar nature can also be designed for adult civilians, who, by virtue of their place of residence or more frequent contact with the forest, are at greater risk of coming into contact with unexploded bombs and unexploded ordnance. Not only forms of indirect communication (online or offline) but also various types of enthusiasts, volunteers or activists can serve as a communication channel in this case.

"Here is an opportunity to say that education in this area should be expanded. I'll say it for myself: we have professional museums, for example Svidník, which is funded by the state. Maybe these institutions should educate more. Then we have KVH, military history clubs, which attract enthusiasts. Here the state could rather contribute through PSK. To support a good cause, there is a mass of volunteers, even bigger enthusiasts than professional museum professionals, who have enough knowledge" [Slovakia].

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

On the other hand, training for forestry workers, but especially for uniformed, rescue and volunteer service personnel, should be much more professional and expanded relative to the materials developed for civilians.

According to experts, educational activities should be regularly cyclical, and the transferred knowledge should grow on a "spiral" basis from the earliest years in school education to specialized professional training in professional activities in the emergency services and uniformed services.

Conclusions and recommendations

Despite the passage of time since World War I and World War II, the problem of unexploded ordnance and unexploded shells has not lost its relevance, especially in areas where warfare was conducted with particular intensity. Experiences and opinions presented by experts even indicate that the problem is becoming more serious over time, as systemic countermeasure capabilities are reduced, while public awareness of the threat among the civilian population is decreasing.

Unexploded ordnance and unexploded shells only lose their ability to be used as intended with the passage of time, but they do not lose their deadly properties. Instead, they become attractive as finds and post-war souvenirs. In the case of Ukraine, the situation is different in that a defensive war against Russian aggression, very similar in its form, is now being fought in the areas where intense warfare was conducted during World War II. Techniques familiar from decades ago are in use again – such as minefields and the scattering of butterfly mines.

Declining public awareness of risks and hazards, as well as a less efficient military counterinsurgency system, mean that personnel from other services, often with insufficient experience and training in the subject of dealing with unexploded ordnance and unexploded shells, are being directed to provide ongoing support and protection of sites where unexploded ordnance is found. Moreover, Slovakian examples of recklessness by forestry workers prove that it is not only the uniformed services that are at risk. Thus, the issue of reworking the safety education system becomes an urgent necessity. The war in Ukraine has made many experts

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

realize that the level of security of the civilian population is not an unchangeable state, and the backlog will be particularly difficult to catch up with in a situation of imminent danger.

Experts therefore recommended educating from an early age, dividing the audience of this type of material into three basic categories, while assigning different approaches based on cognitive ability and degree of risk. These recommendations are illustrated in the table below.

Table 5. Recommendations on educational activities according to audience categories

audience category	risk level assessment	educational activities
children under 10	minor	- short, attractive online materials of a practical nature that do not overlook the consequences of detonating found unexploded bombs or unexploded ordnance; -- alternatively, practical presentations in the field with the participation of experts, on the occasion of, for example, school trips, green schools or school trips outside the city;
minors over 10 years of age	significant	- short, practical online materials of an eminently practical nature, presenting the consequences of detonating found unexploded bombs or unexploded ordnance; - practical presentations in the field with the participation of experts on the occasion of, for example, school trips, green schools or school trips outside the city; - involving young people associated in paramilitary and scout organizations as well-trained ambassadors of the issue for their peers;
adults (post-war residents, forest visitors)	moderate	- short, practical online materials of an eminently practical nature, presenting the consequences of detonating found unexploded bombs or unexploded ordnance; - flyers and posters;
adults (working in forests)	significant	- short, practical online materials of an eminently practical nature, presenting the consequences of detonating found unexploded bombs or unexploded ordnance; - flyers and posters; - practical presentations with the participation of experts (e.g., sapper patrols);
adults (emergency workers and uniformed services)	high	- short, practical online materials of an eminently practical nature, presenting procedures for handling and consequences of detonation of found unexploded bombs or unexploded ordnance; - flyers and posters;

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

		- practical presentations with the participation of experts (e.g., sapper patrols); - longer specialized training along with first aid for victims of detonation of unexploded ordnance or unexploded bombs;

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Bibliography

1. *Album amunicji saperskiej*, sygn. Inż. 515/87.
2. Baldry C., *What are the main contributing factors that lead to safety failures within the non-military EOD sector? Buckinghamshire New University,* 2023
3. Barone P., *Bombed Archaeology: Towards a Precise Identification and a Safe Management of WWII's Dangerous Unexploded Bombs*, „Heritage" 2019, nr2/4
4. Bradáč, J. (2012). *Likvidace nevybuchlé munice v zastavěné oblasti jako mimořádná událost [Bachelor's Thesis]*. https://theses.cz/id/t9pfl1/1736864
5. Brenner S., Zambanini S., Sablatnig R., *Detection of Bomb Craters in WWII Aerial Images*, Tyroll 2018.
6. Brzeziński M., *Logistyka wojskowa*, Warszawa 2005
7. *Budowa i pokonywanie zapór inżynieryjnych*, sygn. Inż. 570/93, Wyd. SG WP, Warszawa 1993.
8. Česká školní inspekce. (2016). *Tematická zpráva - Vzdělávání v bezpečnostních tématech*, https://www.csicr.cz//html/TZ_Vzdelavani_bezpecnost/html5/index.html?&locale=ENG
9. Chmieliński M., *Bezpieczeństwo neutralizacji niewypałów i niewybuchów amunicji artyleryjskiej w strefie brzegowej*, „Bezpieczeństwo i Ekologia" 2017, nr 6
10. Cichocki A., *Działalność marynarki wojennej w zakresie bezpieczeństwa transportu morskiego. Metody likwidacji zagrożeń od niewybuchów podwodnych*, „Bezpieczeństwo i Ekologia" 2016, nr 12,
11. Ciszewski T., *Udział Sił Zbrojnych Rzeczypospolitej w zapobieganiu oraz usuwaniu skutków zagrożeń niemilitarnych*, „Zeszyty Naukowe WSOWL" 2011, nr 2 (160),
12. Czajkowski-Chołota Z., *Oczyszczanie terenu z przedmiotów wybuchowych i niebezpiecznych*, „Przegląd Sił Zbrojnych" 2019, nr 5
13. Czarnecki D., *Udział sił zbrojnych RP w zarządzaniu kryzysowym*, (w:) *Zarządzanie kulturą fizyczną, zdrowiem i bezpieczeństwem. Współczesne wybrane aspekty*, pod red. D. Skalski
14. Fik A., Puchała M., *Funkcjonowanie patroli saperskich jako przykład współdziałania logistyki cywilnej i wojskowej*, „Zarządzanie Innowacyjne w Gospodarce i Biznesie" 2015, nr 2 (21)
15. Gazda A., *Transportowanie materiałów niebezpiecznych przez patrol saperski*, „Zeszyty Naukowe Wyższej Szkoły Informatyki, Zarządzania I Administracji" 2017, t. 15, z.2/39

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

16. Grobel G., *Wojska inżynieryjne jako specjalistyczny komponent Sił Zbrojnych RP w aspekcie zagrożeń niemilitarnych występujących na terytorium Polski*, „Obronność. Zeszyty Naukowe" 2018, nr 4/28
17. Groszek Z., *Użycie Sił Zbrojnych Rzeczypospolitej Polskiej w reagowaniu na zagrożenia niemilitarne*, „Przedsiębiorczość i Zarządzanie" 2015, t. 16, z.6, cz.1
18. Grzywna Z., *Zagrożenia niemilitarne – Siły Zbrojne RP w ich zapobieganiu i likwidacji*, „Kultura Bezpieczeństwa Nauka – Praktyka – Refleksje" 2017, nr 28
19. Grzywna Z., *Zwalczanie współczesnych zagrożeń przy udziale Sił Zbrojnych RP*, „Bezpieczeństwo. Teoria I Praktyka" 2013, nr 4/XIII
20. Hrbáček, J. (2022, October 13). *Konec právního chaosu. Munice bude upravena vlastním zákonem. Dotkne se celého spektra, včetně stavbařů a hledačů pokladů. Ekonomický Deník*. https://ekonomickydenik.cz/konec-pravniho-chaosu-munice-bude-upravena-vlastnim-zakonem-dotkne-se-celeho-spektra-vcetne-stavbaru-a-hledacu-pokladu/
21. Hui Q., Jiang D., *Study on the Disposal Method of Unexploded Riot Bomb. Journal of Physics: Conference Series,* 2021
22. Ivanov A., Sazdovska M., Babanoski K., *Use of modern technology in the protection and rescue of the population from unexploded ordnance* (UXO), 2022
23. Kawka W., *Zespoły rozminowania i oczyszczania terenu w operacjach reagowania kryzysowego*, AON, Warszawa 2009.
24. Khater M, Al-Nuaimy W., Eriksen A., *A Novel Wireless Measurement While Drilling System for the Detection of Deeply Buried Unexploded Bombs* (UXBs), (w:) Towards Autonomous Robotic Systems, London 2019
25. Kmiecik A., *Siedem dekad po II wojnie światowej*, „Przegląd Wojsk Lądowych" 2012, nr1/58
26. *Kontenerowy Magazyn Materiałów Wybuchowych. Opis i użytkowanie*, 01/2008.
27. Lenard S., *Analiza zadań realizowanych przez Siły Zbrojne w ramach współpracy z KSRG*, „Studia Administracji i Bezpieczeństwa" 2017, nr 3
28. Łojewski T., Puchała M., *Wojskowe przewozy materiałów niebezpiecznych na przykładzie Sił Zbrojnych Rzeczpospolitej Polskiej*, „Zarządzanie Innowacyjne w Gospodarce i Biznesie" 2018, nr 2(27)

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

29. Lubański Z., *Ocena funkcjonowania systemu oczyszczania terenów z przedmiotów niebezpiecznych i wybuchowych przez minerskie patrole rozminowania Sił Powietrznych*, Wydział Inżynieryjny Sił Powietrznych (materiały szkoleniowe), 2010
30. Medyński P., *Systemy radiowego sterowania wybuchami*, „Przegląd Sił Zbrojnych" 2019, nr 5
31. MFA CZ. (2023). *Security Strategy of the Czech Republic 2023*. https://www.mzv.cz/file/5161068/Security_Strategy_of_the_Czech_Republic_2023.pdf
32. Miętkiewicz R., *High explosive unexploded ordnance neutralization - Tallboy air bomb case study*, „Defence Technology" 2021, nr 18/2
33. MO ČR. (2019). *Koncepce přípravy občanů k obraně státu 2019-2024*. https://mocr.army.cz/images/id_40001_50000/46088/Koncepce_p____pravy_ob__an___k_obran___st__tu_2019-2024.pdf
34. MO ČR. (2023). *Obranná strategie České republiky*. https://mocr.army.cz/assets/informacni-servis/zpravodajstvi/obranna__strategie_c_r_2023_final.pdf
35. MŠMT ČR. (2023). *Rámcový vzdělávací program pro základní vzdělávání*.
36. MV ČR. (2020). *Koncepce ochrany obyvatelstva do roku 2025 s výhledem do roku 2030*. https://www.hzscr.cz/soubor/koncepce-oob-2025-2030-pdf.aspx
37. Norma Obronna NO-01-A005, *Wojska Inżynieryjne. Terminologia*, MON, Warszawa 2010.
38. Norma Obronna NO-02-A043, *Wojska Inżynieryjne. Rozpoznanie, rozminowanie i oczyszczanie terenów z przedmiotów wybuchowych i niebezpiecznych. Wymagania*, MON, Warszawa 2009.
39. Norma Obronna NO-02-A061, *Wojska inżynieryjne. Rozpoznanie i niszczenie przedmiotów wybuchowych i niebezpiecznych. Wymagania*, wyd. MON, Warszawa 2005.
40. Norma Obronna NO-02-A083, *Wojska inżynieryjne. Usuwanie przedmiotów wybuchowych i niebezpiecznych. Zakres wiedzy i umiejętności personelu rozminowania*, wyd. MON, Warszawa 2009.
41. *Norma Obronna NO-10-A266, Wojska inżynieryjne. Sprzęt do usuwania przedmiotów wybuchowych i niebezpiecznych*. Wymagania, wyd. MON, Warszawa 2013.
42. *Norma Obronna NO-13-A003, Amunicja wojsk. Terminologia ogólna i klasyfikacja podstawowa*, wyd. MON, Warszawa 2001.

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

43. *Norma Obronna NO-13-A007, Materiały wybuchowe. Terminologia*, wyd. MON, Warszawa 2003.
44. Novik G., Abrahamsen E., Sommer M., *Improving the decision-making basis by strengthening the risk assessments of unexploded ordnance and explosive remnants of war*, "Safety Science" 2023, cz. 160
45. Novik G., *Analysis of samples of high explosives extracted from explosive remnants of war*, "The Science of the total environment" 2022
46. Nowak P., *Neutralizacja historycznego uzbrojenia wojskowego o dużym wagoniarze materiału wybuchowego w ramach oczyszczania akwenów z przedmiotów wybuchowych i niebezpiecznych*, „Rocznik Bezpieczeństwa Morskiego. Wydanie Specjalne – 2021", Gdynia 2021
47. *Oczyszczanie terenów z przedmiotów wybuchowych i niebezpiecznych*, Warszawa 2014
48. *Opis i użytkowanie. Instrukcja działalności ośrodków szkolenia poligonowego*, sygn. Szkol. 763/95.
49. Ormandy L., Sammler J., Are W., *Three bomb disposal experts killed by World War II bomb*, Frankfurt 2011
50. Ostrowska M., Podlasiński C., *Patrole rozminowania w systemie zarządzania kryzysowego*, (w:) *Bezpieczeństwo i Zarządzanie Kryzysowe. Zarządzanie bezpieczeństwem lokalnym*, pod red. Z. Wilk-Woś, M. Ostrowska, Łódź 2019
51. Paoletti V., Buggi A., Pasteka R., *UXO Detection by Multiscale Potential Field Methods*, "Pure and Applied Geophysics" 2019, nr 176
52. Piela G., *Procedury neutralizacji przedmiotów wybuchowych i niebezpiecznych* (UXO), Centrum Szkolenia Wojsk Inżynieryjnych i Chemicznych im. gen. Jakuba Jasińskiego, Wrocław 2010
53. Pietrek G., *Zadania i formy współdziałania terenowych organów administracji wojskowej z organami administracji publicznej w sytuacjach kryzysowych oraz związane z tym wyzwania*, „Zeszyty Naukowe WSOWL" 2010, nr 3/157
54. Pochwatka J., *Patrole rozminowania w siłach zbrojnych Rzeczypospolitej Polskiej*, „Obronność. Zeszyty Naukowe" 2016, nr 3/19
55. *Podręcznik oficera wojsk inżynieryjnych*, pod red. S.Kowalkowski, Warszawa 2015

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

56. *Podwodne prace minerskie. Podręcznik*, sygn. Szkol. 769/95. Wyd. SG WP, Warszawa 1995.
57. *Pojazd saperski. Opis i użytkowanie,* wyd. drugie poprawione (dokumentacja eksploatacyjna).
58. Policie ČR. (n.d.). *Pyrotechnická služba Policie České republiky*. Policie ČR. Retrieved October 12, 2023, from https://www.policie.cz/clanek/pyrotechnicka-sluzba-policie-ceske-republiky-906180.aspx
59. Politowski B., 5/25 *Saperzy w strefie śmierci. Kulisy pracy saperów służących w polskiej armii*, Wołowiec 2021
60. *Prace minerskie i niszczenia – Szefostwo Wojsk Inżynieryjnych Sztab Generalny WP*, Warszawa 1995
61. *Prace minerskie i niszczenia*, sygn. Inż. 572/94, Wyd. SG WP, Warszawa 1994.
62. *Rozpoznanie i niszczenie przedmiotów wybuchowych i niebezpiecznych*, NO-02-A061:2005, Norma Obronna zatwierdzona przez Ministra Obrony Narodowej decyzją Nr 99 z dnia 13 kwietnia 2005 r. (Dz. Urz. MON nr 7, poz. 55).
63. Sharma S.P., Lahiri S.C., *GC-MS and HPTLC analysis of constituents of an unexploded bomb*, "Journal- Indian Chemical Society" 2005, nr 82/2
64. Sýkora, J. (2015). *Pyrotechnika v rukou mládeže a neodborné veřejnosti* [Bachelor's Thesis]. https://dspace.cuni.cz/bitstream/handle/20.500.11956/81478/BPTX_2014_1_11410_0_383829_0_148101.pdf?sequence=1
65. *System detonacji ciągłej STS. Opis i użytkowanie*, sygn. Inż. 587/2002, wyd. DWLąd, Warszawa 2002.
66. *System oczyszczania terenu i akwenów z przedmiotów wybuchowych i niebezpiecznych Marynarki Wojennej RP*. Szefostwo Inżynierii Morskiej Dowództwa Marynarki Wojennej RP (materiały szkoleniowe), Wrocław 2010.
67. Szczurek T., *Resort obrony narodowej w systemie zarządzania kryzysowego*, „Roczniki Nauk Społecznych" 2023, t. 15 (51) , nr 2
68. Talik A., *Wojska inżynieryjne a zagrożenia niemilitarne*, „Przegląd Sił Zbrojnych" 2019, nr 5

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

69. Trevelyan J., Farming *Minefields: Remediating land with moderate landmine and UXO contamination*, Brussels 2023
70. Tureček, J. (2014). *Policejní pyrotechnika.* Vydavatelství a Nakladatelství Aleš Čeněk, s.r.o.
71. *Usuwanie przedmiotów wybuchowych i niebezpiecznych*, NO-02-A069:2007, Norma Obronna zatwierdzona przez Ministra Obrony Narodowej decyzją Nr 232 z dnia 25 maja 2007 r. (Dz. Urz. MON nr 11, poz. 127).
72. Vláda ČR. (2023). *Vládní návrh zákona o munici 464/0*. https://www.psp.cz/sqw/text/orig2.sqw?idd=222905
73. Waga J., Fajer M., Szypuła B., *Current and potential landscape functions of areas with the remnants of World War II bombing in the Koźle Basin, southern Poland*, "Environmental & Socio-economic Studies" 2023
74. Waga J., Szypuła B., Fajer M., *The Archaeology of Unexploded World War II Bomb Sites in the Koźle Basin, Southern Poland,* "International Journal of Historical Archaeology" 2022, nr 27/3
75. Wawrzyniak M., *Saperskie wyzwania*, „Przegląd Sił Zbrojnych" 2019, nr 5
76. Wirnitzer, J. (2020, May 19). *Vyplatí se stamiliony pro branné spolky? Klíčem k penězům bude důvěryhodnost v očích ministra*. Deník N. https://denikn.cz/362783/vyplati-se-stamiliony-pro-branne-spolky-klicem-k-penezum-bude-duveryhodnost-v-ocich-ministra/
77. Zákon č. 119/2002 Sb., o střelných zbraních a střelivu, (2002). https://www.zakonyprolidi.cz/cs/2002-119
78. Zákon č. 222/1999 Sb., o zajišťování obrany České republiky, (1999).
79. Zakrzewska M., *Funkcjonowanie jednostek wojskowych w siłach zbrojnych RP,* „Systemy Bezpieczeństwa Narodowego Instytut Bezpieczeństwa i Obronności" 2022, nr 25
80. Zakrzewski W., *Bezpieczeństwo społeczności lokalnej w aspekcie zagrożeń powodowanych niewybuchami i niewypałami – studium województwa lubuskiego*, „Studia Administracji i Bezpieczeństwa"2020, nr 1
81. Zakrzewski W., *Risk management as a determining factor for the safety of a sapper patrol*, "Scientific Journal of the Military University of Land Forces",2023
82. Zakrzewski W., *Wojska inżynieryjne w zintegrowanym systemie bezpieczeństwa*, „Obronność. Zeszyty Naukowe" 2015, nr 2/14
83. Zalewski D., *Wykorzystanie robotów saperskich*, „Przegląd Sił Zbrojnych" 2019, nr 5

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

84. Zeman, A. (2020). *Analýza struktury policejní pyrotechniky z hlediska vývoje bezpečnostních hrozeb od roku 1945 po současnost* [Diploma Thesis].
85. Zhang Q., Al-Nuaimy W., Huang Y., I*nterpretation of borehole magnetometer data for the detection and characterisation of unexploded bombs*, "Journal of Applied Geophysics", 2007, nr 61
86. Zikmund, P. (2012). *Činnost policie jako složky IZS při nálezu munice se zaměřením na letecké pumy v obydlených oblastech* [Master's Thesis]. https://theses.cz/id/k7sd4c/1810660

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

List of tables and figures

Tables

Figures

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Appendix 1. Survey Tool

Dear All,

The Regional Institute Foundation (Poland), in cooperation with the Union of Reserve Officers of the Republic of Poland (Poland), the Institute for Security and International Development (Poland), Detská organizácia FÉNIX Snina (Slovakia), Centrum pro bezpečnostní analýzu a prevenci (Czech Republic) and Громадська організація "Наромооборона самооборона Львівщини" (Ukraine) are currently implementing a project titled "Education for Security in Unexploded and Other Military Explosives Procedures". *Education for Safety on procedures for unexploded ordnance and other military explosives* within the framework of the Visegrad Fund. The project is co-financed by the governments of the Czech Republic, Hungary, Poland and Slovakia under the Visegrad Grants of the International Visegrad Fund. The Fund's mission is to promote the idea of sustainable regional cooperation in Central Europe.

The results will be analysed and presented in the form of summary tables. The questionnaire does not contain any questions about personal data, we do not collect information about your IP. The database of responses for the duration of the project is at the disposal of the Regional Institute Foundation. Upon completion of the project, your responses will be deleted.

Your feedback will be used to develop and implement educational measures for dealing with unexploded ordnance and unexploded shells. We are very much interested in sincere and responsible responses.

Dr. Agnieszka Pieniążek
Research Team
Regional Institute Foundation

1. **Please indicate your gender**
    a. woman
    b. man
2. **What is your age?**
    a. 18-34 years
    b. 35-64 years
    c. 65 and older
3. **Which region do you currently live in? .....**
4. **The size of your locality of residence?**
    a. village
    b. city of up to 50 thousand inhabitants
    c. city of 50-100 thousand inhabitants
    d. city of 100,000-500,000 inhabitants
    e. city of more than 500 thousand inhabitants

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

5. **Do you currently (YES / NO):**
    a. conduct classes with children or young learners
    b. remain active in a social organization (e.g., an association, foundation, parish organization, TSO or other social organization concerned with the safety of the population)
6. **In your opinion, unexploded ordnance or unexploded shell represents (TOTAL NO DANGER <-> DEFINITE DANGER):**
    a. in your country
    b. in your region of residence
    c. in your area of residence
7. **Have you come across any information about unexploded shells or unexploded ordnance in the last 12 months (YES/NO)?**
    a. instructional materials available online
    b. flyers / instructions / posters
    c. presentation led by a representative of the uniformed services
    d. workshops
    e. social campaign on TV / radio / press
    f. information campaign
8. **How would you rate your knowledge of dealing with unexploded shells or unexploded ordnance? (DEFINITELY INSUFFICIENT <-> DEFINITELY SUFFICIENT)**
9. **In your opinion, if you come across an unexploded shell or unexploded ordnance (DON'T / DO):**
    a. check, if possible, for further unexploded shells or unexploded ordnance in the immediate vicinity
    b. move the found unexploded ordnance or unexploded shell to a safe, secluded place
    c. notify the police or call the emergency number 112
    d. secure the area and ensure that no one approaches the found unexploded shells or unexploded ordnance

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

e. make a solo attempt to detonate an unexploded shell or unexploded ordnance so that it does not pose a danger to bystanders

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

10. **Which educational activities on dealing with unexploded ordnance or unexploded shells are you (DEFINITELY NOT INTERESTED IN <-> DEFINITELY INTERESTED IN):**
    a. social campaign on TV / radio / press
    b. flyers / instructions / posters (e.g., in offices)
    c. presentation led by representatives of the uniformed services
    d. workshops
    e. Online instructional materials (on the Internet)
11. **Are any other educational activities on dealing with unexploded shells or unexploded ordnance of interest to you, if any? Please specify which ones: .....**

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Appendix 2. Scenario of a focused group discussion on dealing with unexploded ordnance or other materials of dangerous military origin

Dear Sirs,

The Regional Institute Foundation (Poland), in cooperation with the Union of Reserve Officers of the Republic of Poland (Poland), the Institute for Security and International Development (Poland), Detská organizácia FÉNIX Snina (Slovakia), Centrum pro bezpečnostní analýzu a prevenci (Czech Republic) and Громадська організація "Наромооборона самооборона Львівщини" (Ukraine) are currently implementing a project titled "Education for Security in Unexploded and Other Military Explosives Procedures". *Education for Safety on procedures for unexploded ordnance and other military explosives* within the framework of the Visegrad Fund. The project is co-financed by the governments of the Czech Republic, Hungary, Poland and Slovakia under the Visegrad Grants of the International Visegrad Fund. The Fund's mission is to promote the idea of sustainable regional cooperation in Central Europe.

At no point during our discussion do we ask for your personal information. The recording is for analytical purposes only and will be deleted after the report is compiled. In the report itself, any quoted statements will be secondarily anonymized, meaning that not only are they not attributed to any of the participants, but additionally any other information that could make it easier to identify the person quoted will be removed. We are only interested in your perspective on how you view the issues discussed.

Your feedback will be used to refine and implement educational activities on dealing with unexploded ordnance and unexploded bombs. We are very much interested in your sincere responses.

Dr. Agnieszka Pieniążek
Research Team
Regional Institute Foundation

BLOCK 1 - general opinion on the threat of unexploded and unexploded ordnance

1. **At the beginning of our conversation, I would like to ask whether, in your opinion, unexploded ordnance or unexploded shells still pose a threat to civilians?**
    a. Why yes? Why not?
    b. Who is particularly at risk? What categories of civilians?
    c. Where in particular does this threat occur? In what situations?

2. **In your opinion, do your neighbours, friends and family know how to properly handle unexploded shells or unexploded ordnance? Please give more detailed reasons for your opinion.**

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

BLOCK 2 - expectations of educational activities in terms of form and content

3. **Let's focus on training for a moment - what in particular, in your opinion, is important in such training? What should the emphasis be placed on?**

4. **What should a course on this topic look like that would suit you best?**
   a. What should be the form of the course?
   b. What should the course focus on? What kind of content?
   c. Why?

5. **And what should a course dedicated to children and young people look like in case of children:**
   a. Up to the age of 10?
   b. Up to the age of 14?
   c. For high school students?

6. **In your opinion, should knowledge of unexploded ordnance and unexploded shells be refreshed, and possibly how often?**

7. **Do you expect short teaching materials to support your work in this area with children and young people? What should they look like?**

BLOCK 3 - summary

8. **From the perspective of our discussion - the ideal course on unexploded ordnance and unexploded shells is ...**

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Appendix 3 Frequency tables

Table 1 Respondents by country

		Frequency	Percentage	Percentage of valid	Cumulative percentage
Important	Czech Republic	213	40,8	40,8	40,8
	Slovakia	90	17,2	17,2	58,0
	Poland	114	21,8	21,8	79,9
	Ukraine	105	20,1	20,1	100,0
	Total	522	100,0	100,0	

Table 2 Respondents by gender

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	woman	127	59,6	59,6	59,6
		man	86	40,4	40,4	100,0
		Total	213	100,0	100,0	
Slovakia	Important	woman	47	52,2	52,2	52,2
		man	43	47,8	47,8	100,0
		Total	90	100,0	100,0	
Poland	Important	woman	59	51,8	51,8	51,8
		man	55	48,2	48,2	100,0
		Total	114	100,0	100,0	
Ukraine	Important	woman	77	73,3	73,3	73,3
		man	28	26,7	26,7	100,0
		Total	105	100,0	100,0	

Table 3 Respondents by age

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	18-34 years	186	87,3	87,3	87,3
		35-64 years	26	12,2	12,2	99,5
		65 and older	1	,5	,5	100,0
		Total	213	100,0	100,0	
Slovakia	Important	18-34 years	16	17,8	17,8	17,8
		35-64 years	59	65,6	65,6	83,3
		65 and older	15	16,7	16,7	100,0
		Total	90	100,0	100,0	
Poland	Important	18-34 years	39	34,2	34,2	34,2
		35-64 years	69	60,5	60,5	94,7
		65 and older	6	5,3	5,3	100,0
		Total	114	100,0	100,0	
Ukraine	Important	18-34 years	53	50,5	50,5	50,5
		35-64 years	52	49,5	49,5	100,0
		Total	105	100,0	100,0	

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 4 Respondents by size of locality of residence

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	village	59	27,7	27,7	27,7
		city of up to 50 thousand inhabitants	72	33,8	33,8	61,5
		city of 50-100 thousand inhabitants	11	5,2	5,2	66,7
		city of 100,000-500,000 inhabitants	50	23,5	23,5	90,1
		city of more than 500 thousand inhabitants	21	9,9	9,9	100,0
		Total	213	100,0	100,0	
Slovakia	Important	village	27	30,0	30,0	30,0
		city of up to 50 thousand inhabitants	47	52,2	52,2	82,2
		city of 50-100 thousand inhabitants	5	5,6	5,6	87,8
		city of 100,000-500,000 inhabitants	9	10,0	10,0	97,8
		city of more than 500 thousand inhabitants	2	2,2	2,2	100,0
		Total	90	100,0	100,0	
Poland	Important	village	42	36,8	36,8	36,8
		city of up to 50 thousand inhabitants	13	11,4	11,4	48,2
		city of 50-100 thousand inhabitants	11	9,6	9,6	57,9
		city of 100,000-500,000 inhabitants	33	28,9	28,9	86,8
		city of more than 500 thousand inhabitants	15	13,2	13,2	100,0
		Total	114	100,0	100,0	
Ukraine	Important	village	22	21,0	21,0	21,0
		city of up to 50 thousand inhabitants	21	20,0	20,0	41,0
		city of 50-100 thousand inhabitants	9	8,6	8,6	49,5
		city of 100,000-500,000 inhabitants	9	8,6	8,6	58,1
		city of more than 500 thousand inhabitants	44	41,9	41,9	100,0
		Total	105	100,0	100,0	

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 5 Respondents by work situation

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	schoolgirl pupil/student student	156	73,2	73,2	73,2
		working employed (full or part-time, business, farm)	55	25,8	25,8	99,1
		not working not working (raising children, taking care of home)	1	,5	,5	99,5
		pensioner pensioner pensioner pensioner	1	,5	,5	100,0
		Total	213	100,0	100,0	
Slovakia	Important	schoolgirl pupil/student student	6	6,7	6,7	6,7
		working employed (full or part-time, business, farm)	68	75,6	75,6	82,2
		not working not working (raising children, taking care of home)	1	1,1	1,1	83,3
		pensioner pensioner pensioner pensioner	15	16,7	16,7	100,0
		Total	90	100,0	100,0	
Poland	Important	schoolgirl pupil/student student	16	14,0	14,0	14,0
		working employed (full or part-time, business, farm)	89	78,1	78,1	92,1
		not working not working (raising children, taking care of home)	2	1,8	1,8	93,9
		pensioner pensioner pensioner pensioner	7	6,1	6,1	100,0
		Total	114	100,0	100,0	
Ukraine	Important	schoolgirl pupil/student student	45	42,9	42,9	42,9
		working employed (full or part-time, business, farm)	56	53,3	53,3	96,2
		not working not working (raising children, taking care of home)	2	1,9	1,9	98,1
		pensioner pensioner pensioner pensioner	2	1,9	1,9	100,0
		Total	105	100,0	100,0	

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 6. Respondents by social activity and work with children and youth

		conducts classes with children or young people under 18 years of age		works in a social organization	
		not % of N in line	yes % of N in line	not % of N in line	yes % of N in line
country	Czech Republic	76,7%	23,3%	74,9%	25,1%
	Slovakia	52,3%	47,7%	60,7%	39,3%
	Poland	67,6%	32,4%	59,8%	40,2%
	Ukraine	64,7%	35,3%	77,3%	22,7%

Table 7. Opinions about unexploded ordnance and unexploded bombs as a threat at the level of the country of residence

		complete absence of danger % of N in line	rather no threat % of N in line	hard to say % of N in line	rather a threat % of N in line	definite threat % of N in line
country	Czech Republic	17,4%	36,6%	23,9%	16,0%	6,1%
	Slovakia	6,7%	28,1%	27,0%	25,8%	12,4%
	Poland	0,0%	17,9%	21,4%	24,1%	36,6%
	Ukraine	1,9%	4,8%	2,9%	8,7%	81,7%

Table 8. Opinions about unexploded ordnance and unexploded bombs as a threat at the level of the region of residence

		complete absence of danger % of N in line	rather no threat % of N in line	hard to say % of N in line	rather a threat % of N in line	definite threat % of N in line
country	Czech Republic	23,5%	34,7%	23,0%	13,1%	5,6%
	Slovakia	6,7%	32,6%	16,9%	28,1%	15,7%
	Poland	2,7%	23,2%	20,5%	23,2%	30,4%
	Ukraine	2,0%	10,9%	9,9%	13,9%	63,4%

Table 9. Opinions about unexploded ordnance and unexploded bombs as a threat at the level of the area of residence

		complete absence of danger % of N in line	rather no threat % of N in line	hard to say % of N in line	rather a threat % of N in line	definite threat % of N in line
country	Czech Republic	32,4%	31,0%	19,7%	10,8%	6,1%
	Slovakia	10,2%	28,4%	19,3%	25,0%	17,0%
	Poland	6,4%	24,5%	20,9%	21,8%	26,4%
	Ukraine	6,9%	10,9%	6,9%	14,9%	60,4%

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 10. Contact in the last 12 months with unexploded and unexploded ordnance materials/information

		Czech Republic % of N in column	Slovakia % of N in column	Poland % of N in column	Ukraine % of N in column
instructional materials available online	not	88,2%	90,8%	73,8%	28,1%
	yes	11,8%	9,2%	26,2%	71,9%
flyers / instructions / posters	not	96,7%	92,0%	83,5%	51,1%
	yes	3,3%	8,0%	16,5%	48,9%
presentation led by representatives of the uniformed services	not	89,0%	87,5%	72,0%	56,8%
	yes	11,0%	12,5%	28,0%	43,2%
workshops	not	98,1%	95,4%	94,2%	80,5%
	yes	1,9%	4,6%	5,8%	19,5%
social campaign on TV / radio / press	not	62,9%	72,2%	69,2%	33,7%
	yes	37,1%	27,8%	30,8%	66,3%
information campaign	not	93,8%	85,2%	73,1%	51,0%
	yes	6,2%	14,8%	26,9%	49,0%

Table 11. Contact (total) in the last 12 months with unexploded and unexploded ordnance materials/information

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	0	114	53,5	53,5	53,5
		1	64	30,0	30,0	83,6
		2	24	11,3	11,3	94,8
		3	7	3,3	3,3	98,1
		4	3	1,4	1,4	99,5
		6	1	,5	,5	100,0
		Total	213	100,0	100,0	
Slovakia	Important	0	56	62,2	62,2	62,2
		1	16	17,8	17,8	80,0
		2	9	10,0	10,0	90,0
		3	5	5,6	5,6	95,6
		4	2	2,2	2,2	97,8
		5	1	1,1	1,1	98,9
		6	1	1,1	1,1	100,0
		Total	90	100,0	100,0	
Poland	Important	0	43	37,7	37,7	37,7
		1	39	34,2	34,2	71,9
		2	10	8,8	8,8	80,7
		3	13	11,4	11,4	92,1
		4	4	3,5	3,5	95,6
		5	2	1,8	1,8	97,4
		6	3	2,6	2,6	100,0
		Total	114	100,0	100,0	
Ukraine	Important	0	18	17,1	17,1	17,1
		1	14	13,3	13,3	30,5
		2	19	18,1	18,1	48,6
		3	21	20,0	20,0	68,6
		4	10	9,5	9,5	78,1
		5	11	10,5	10,5	88,6
		6	12	11,4	11,4	100,0
		Total	105	100,0	100,0	

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 12. assessment of own knowledge of unexploded ordnance and unexploded ordnance

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	far from sufficient	58	27,2	27,2	27,2
		rather insufficient	59	27,7	27,7	54,9
		hard to say	40	18,8	18,8	73,7
		rather sufficient	27	12,7	12,7	86,4
		definitely sufficient	29	13,6	13,6	100,0
		Total	213	100,0	100,0	
Slovakia	Important	far from sufficient	28	31,1	31,1	31,1
		rather insufficient	14	15,6	15,6	46,7
		hard to say	20	22,2	22,2	68,9
		rather sufficient	12	13,3	13,3	82,2
		definitely sufficient	16	17,8	17,8	100,0
		Total	90	100,0	100,0	
Poland	Important	far from sufficient	19	16,7	16,7	16,7
		rather insufficient	24	21,1	21,1	37,7
		hard to say	21	18,4	18,4	56,1
		rather sufficient	28	24,6	24,6	80,7
		definitely sufficient	22	19,3	19,3	100,0
		Total	114	100,0	100,0	
Ukraine	Important	far from sufficient	14	13,3	13,3	13,3
		rather insufficient	16	15,2	15,2	28,6
		hard to say	38	36,2	36,2	64,8
		rather sufficient	25	23,8	23,8	88,6
		definitely sufficient	12	11,4	11,4	100,0
		Total	105	100,0	100,0	

Table 13. knowledge of dealing with unexploded ordnance and unexploded ordnance

		Czech Republic % of N in column	Slovakia % of N in column	Poland % of N in column	Ukraine % of N in column
check, if possible, for further unexploded bombs or unexploded ordnance in the immediate vicinity	must not	67,9%	56,2%	68,8%	64,4%
	please	32,1%	43,8%	31,2%	35,6%
move the found unexploded ordnance or unexploded ordnance to a safe, secluded place	must not	99,5%	94,4%	98,2%	95,1%
	please	0,5%	5,6%	1,8%	4,9%
notify the police or call the emergency number 112	must not	0,5%	2,2%	2,6%	1,9%
	please	99,5%	97,8%	97,4%	98,1%
Secure the area and ensure that no one approaches the found unexploded or unexploded ordnance	must not	4,8%	10,2%	4,5%	3,9%
	please	95,2%	89,8%	95,5%	96,1%
make a solo attempt to detonate an unexploded ordnance or unexploded ordnance so that it does not pose a danger to bystanders	must not	100,0%	95,5%	99,1%	98,1%
	please	0,0%	4,5%	0,9%	1,9%

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 14. index of actual knowledge of dealing with unexploded ordnance and unexploded ordnance

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	-5	1	,5	,5	,5
		-1	2	,9	,9	1,4
		1	63	29,6	29,6	31,0
		3	141	66,2	66,2	97,2
		5	6	2,8	2,8	100,0
		Total	213	100,0	100,0	
Slovakia	Important	-3	3	3,3	3,3	3,3
		-1	4	4,4	4,4	7,8
		1	34	37,8	37,8	45,6
		3	43	47,8	47,8	93,3
		5	6	6,7	6,7	100,0
		Total	90	100,0	100,0	
Poland	Important	-3	6	5,3	5,3	5,3
		1	34	29,8	29,8	35,1
		3	71	62,3	62,3	97,4
		5	3	2,6	2,6	100,0
		Total	114	100,0	100,0	
Ukraine	Important	-3	2	1,9	1,9	1,9
		-1	4	3,8	3,8	5,7
		1	38	36,2	36,2	41,9
		3	59	56,2	56,2	98,1
		5	2	1,9	1,9	100,0
		Total	105	100,0	100,0	

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 15. interest in planned activities: social campaign on TV / radio / press

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	not interested at all	37	17,4	17,5	17,5
		rather not interested	44	20,7	20,8	38,2
		hard to say	30	14,1	14,2	52,4
		rather interested	82	38,5	38,7	91,0
		definitely interested	19	8,9	9,0	100,0
		Total	212	99,5	100,0	
	Data gaps	Systemic data deficiencies	1	,5		
	Total		213	100,0		
Slovakia	Important	not interested at all	17	18,9	19,1	19,1
		rather not interested	22	24,4	24,7	43,8
		hard to say	17	18,9	19,1	62,9
		rather interested	22	24,4	24,7	87,6
		definitely interested	11	12,2	12,4	100,0
		Total	89	98,9	100,0	
	Data gaps	Systemic data deficiencies	1	1,1		
	Total		90	100,0		
Poland	Important	not interested at all	13	11,4	11,5	11,5
		rather not interested	19	16,7	16,8	28,3
		hard to say	12	10,5	10,6	38,9
		rather interested	44	38,6	38,9	77,9
		definitely interested	25	21,9	22,1	100,0
		Total	113	99,1	100,0	
	Data gaps	Systemic data deficiencies	1	,9		
	Total		114	100,0		
Ukraine	Important	not interested at all	16	15,2	16,5	16,5
		rather not interested	16	15,2	16,5	33,0
		hard to say	10	9,5	10,3	43,3
		rather interested	34	32,4	35,1	78,4
		definitely interested	21	20,0	21,6	100,0
		Total	97	92,4	100,0	
	Data gaps	Systemic data deficiencies	8	7,6		
	Total		105	100,0		

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 16. interest in planned activities: leaflets / instructions / posters (e.g. in offices).

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	not interested at all	42	19,7	20,1	20,1
		rather not interested	67	31,5	32,1	52,2
		hard to say	44	20,7	21,1	73,2
		rather interested	50	23,5	23,9	97,1
		definitely interested	6	2,8	2,9	100,0
		Total	209	98,1	100,0	
	Data gaps	Systemic data deficiencies	4	1,9		
	Total		213	100,0		
Slovakia	Important	not interested at all	14	15,6	15,9	15,9
		rather not interested	25	27,8	28,4	44,3
		hard to say	14	15,6	15,9	60,2
		rather interested	24	26,7	27,3	87,5
		definitely interested	11	12,2	12,5	100,0
		Total	88	97,8	100,0	
	Data gaps	Systemic data deficiencies	2	2,2		
	Total		90	100,0		
Poland	Important	not interested at all	14	12,3	12,7	12,7
		rather not interested	23	20,2	20,9	33,6
		hard to say	21	18,4	19,1	52,7
		rather interested	35	30,7	31,8	84,5
		definitely interested	17	14,9	15,5	100,0
		Total	110	96,5	100,0	
	Data gaps	Systemic data deficiencies	4	3,5		
	Total		114	100,0		
Ukraine	Important	not interested at all	17	16,2	17,7	17,7
		rather not interested	20	19,0	20,8	38,5
		hard to say	11	10,5	11,5	50,0
		rather interested	25	23,8	26,0	76,0
		definitely interested	23	21,9	24,0	100,0
		Total	96	91,4	100,0	
	Data gaps	Systemic data deficiencies	9	8,6		
	Total		105	100,0		

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 17. interest in planned activities: presentation by representatives of the uniformed services

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	not interested at all	16	7,5	7,6	7,6
		rather not interested	20	9,4	9,5	17,1
		hard to say	34	16,0	16,1	33,2
		rather interested	67	31,5	31,8	64,9
		definitely interested	74	34,7	35,1	100,0
		Total	211	99,1	100,0	
	Data gaps	Systemic data deficiencies	2	,9		
	Total		213	100,0		
Slovakia	Important	not interested at all	11	12,2	12,4	12,4
		rather not interested	17	18,9	19,1	31,5
		hard to say	13	14,4	14,6	46,1
		rather interested	35	38,9	39,3	85,4
		definitely interested	13	14,4	14,6	100,0
		Total	89	98,9	100,0	
	Data gaps	Systemic data deficiencies	1	1,1		
	Total		90	100,0		
Poland	Important	not interested at all	2	1,8	1,8	1,8
		rather not interested	14	12,3	12,6	14,4
		hard to say	14	12,3	12,6	27,0
		rather interested	42	36,8	37,8	64,9
		definitely interested	39	34,2	35,1	100,0
		Total	111	97,4	100,0	
	Data gaps	Systemic data deficiencies	3	2,6		
	Total		114	100,0		
Ukraine	Important	not interested at all	11	10,5	11,0	11,0
		rather not interested	15	14,3	15,0	26,0
		hard to say	14	13,3	14,0	40,0
		rather interested	27	25,7	27,0	67,0
		definitely interested	33	31,4	33,0	100,0
		Total	100	95,2	100,0	
	Data gaps	Systemic data deficiencies	5	4,8		
	Total		105	100,0		

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 18. interest in planned activities: workshops

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	not interested at all	34	16,0	16,1	16,1
		rather not interested	33	15,5	15,6	31,8
		hard to say	52	24,4	24,6	56,4
		rather interested	55	25,8	26,1	82,5
		definitely interested	37	17,4	17,5	100,0
		Total	211	99,1	100,0	
	Data gaps	Systemic data deficiencies	2	,9		
	Total		213	100,0		
Slovakia	Important	not interested at all	14	15,6	15,7	15,7
		rather not interested	19	21,1	21,3	37,1
		hard to say	23	25,6	25,8	62,9
		rather interested	23	25,6	25,8	88,8
		definitely interested	10	11,1	11,2	100,0
		Total	89	98,9	100,0	
	Data gaps	Systemic data deficiencies	1	1,1		
	Total		90	100,0		
Poland	Important	not interested at all	13	11,4	11,7	11,7
		rather not interested	16	14,0	14,4	26,1
		hard to say	24	21,1	21,6	47,7
		rather interested	28	24,6	25,2	73,0
		definitely interested	30	26,3	27,0	100,0
		Total	111	97,4	100,0	
	Data gaps	Systemic data deficiencies	3	2,6		
	Total		114	100,0		
Ukraine	Important	not interested at all	16	15,2	16,8	16,8
		rather not interested	17	16,2	17,9	34,7
		hard to say	24	22,9	25,3	60,0
		rather interested	16	15,2	16,8	76,8
		definitely interested	22	21,0	23,2	100,0
		Total	95	90,5	100,0	
	Data gaps	Systemic data deficiencies	10	9,5		
	Total		105	100,0		

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe

Table 19. interest in planned activities: online instructional materials (on the Internet)

country			Frequency	Percentage	Percentage of valid	Cumulative percentage
Czech Republic	Important	not interested at all	27	12,7	12,7	12,7
		rather not interested	33	15,5	15,6	28,3
		hard to say	37	17,4	17,5	45,8
		rather interested	76	35,7	35,8	81,6
		definitely interested	39	18,3	18,4	100,0
		Total	212	99,5	100,0	
	Data gaps	Systemic data deficiencies	1	,5		
	Total		213	100,0		
Slovakia	Important	not interested at all	13	14,4	14,8	14,8
		rather not interested	16	17,8	18,2	33,0
		hard to say	16	17,8	18,2	51,1
		rather interested	27	30,0	30,7	81,8
		definitely interested	16	17,8	18,2	100,0
		Total	88	97,8	100,0	
	Data gaps	Systemic data deficiencies	2	2,2		
	Total		90	100,0		
Poland	Important	not interested at all	7	6,1	6,4	6,4
		rather not interested	18	15,8	16,4	22,7
		hard to say	16	14,0	14,5	37,3
		rather interested	34	29,8	30,9	68,2
		definitely interested	35	30,7	31,8	100,0
		Total	110	96,5	100,0	
	Data gaps	Systemic data deficiencies	4	3,5		
	Total		114	100,0		
Ukraine	Important	not interested at all	11	10,5	11,0	11,0
		rather not interested	11	10,5	11,0	22,0
		hard to say	11	10,5	11,0	33,0
		rather interested	27	25,7	27,0	60,0
		definitely interested	40	38,1	40,0	100,0
		Total	100	95,2	100,0	
	Data gaps	Systemic data deficiencies	5	4,8		
	Total		105	100,0		

The project "Security education on procedures for live bombs and other military explosive materials"
is co-financed by the Governments of the Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund.
The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe