

# THE ARMED FORCES OF BOSNIA AND HERZEGOVINA IN HUMANITARIAN DEMINING OPERATIONS

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**A**bstract: The destructive impact on human populations has been a common characteristic of all wars throughout history — not only during their course but long after combat operations have ceased. One of the most insidious legacies of modern warfare is the presence of landmines and unexploded ordnance. Many countries on whose territories combat operations were conducted continue to face this problem. This issue represents a specific security threat as it simultaneously endangers people, the environment, as well as natural, material, and other assets, while also being a latent cause of socio-economic harm to society as a whole. In the context of Southeast Europe, Bosnia and Herzegovina ranks among the countries most affected by the presence of mines and unexploded ordnance. The aim of this paper is to present practical experiences regarding the etiology of mine action and the capacities of Bosnia and Herzegovina to conduct humanitarian demining operations as a segment of mine action. The paper focuses on explaining one component — the military sector — of the unified system established at the state level and aimed at solving the problem of residual mines and unexploded ordnance. Accordingly, the initial hypothesis posits that the capacities of the Armed Forces of Bosnia and Herzegovina enable them to conduct humanitarian demining operations. The paper employs specific scientific methods: induction–deduction, analysis–synthesis, and definition–classification.

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## Introduction

The fight against mines and unexploded ordnance (hereinafter referred to as UXO) represents a complex and, above all, economically demanding task for all countries facing this problem. Accordingly, countries whose territories are contaminated with mines and UXO pay special attention to establishing and developing capacities for mine and UXO action, that is, mine action as a complex process that incorporates the activities of all actors and forces possessing the capacities for its implementation. Mine action does not refer solely to the physical removal of mines and UXO from the territory (humanitarian demining) but also encompasses a broader aspect that includes concern for people, the environment, and natural, material, and other assets, as well as the consequences that mines and UXO leave on them.

Practical experience with mine action has shown that (1) the effects of mines and UXO are uncontrollable, and (2) their removal requires an extremely complex and long-term process, making it highly costly. It is important to note that even the very conceptual definition of mines has lost its military characteristics, as the current understanding of mines is dominated by their social dimension, primarily linked to the problems that arise as a consequence of their effects (Kovačević, 2015: 197). Mine action is, therefore, one of the key challenges in the post-conflict recovery and reconstruction of war-affected countries.

It is also important to emphasize that the problem related to mines and UXO should be addressed at the strategic decision-making level in all countries that participate in armed conflicts (either as direct participants or intermediaries), and especially in those countries where combat operations are conducted — primarily for two reasons. The first reason lies in the fact that, during the conduct of combat operations, the use of mines should, for humanitarian reasons — that is, due to the injuries and consequences they cause to both active and passive participants in hostilities — be reduced to a minimum. The second reason is that only upon the cessation of combat operations can the full extent of the problem related to mines and unexploded ordnance be assessed. Evidence supporting this claim can be found in the armed conflict in Ukraine, where mines are among the most frequently used means for destroying human and material resources on both sides — particularly due to the static, trench-based nature of the combat — and the consequences of their use will only become fully visible after the end of hostilities on the territory of that country.

Bosnia and Herzegovina (hereinafter referred to as BiH) is among the countries whose territories were exposed to high-intensity combat operations, one of the consequences of which is the presence of remaining mines and unexploded ordnance. Thirty years after the end of the war, BiH remains among the ten most mine- and UXO-contaminated countries in the world, and it ranks first in the southeastern part of the European continent. More than half a million residents of BiH remain directly exposed to the danger of residual mines and unexploded ordnance.

Over the past thirty years, Bosnia and Herzegovina has developed a unique state-level model of mine action, consisting of both civilian and military components. Such a model, in which the civilian and military sectors participate on an equal footing, is not a common occurrence worldwide. In accordance with the initial hypothesis, the focus of this paper is on the presentation of the military sector, with the aim of determining its capacities for conducting mine action, specifically humanitarian demining operations.

## The Impact of Mines and Unexploded Ordnance on the Security of Bosnia and Herzegovina

National security, with a focus on the protection of the state, has evolved into human security, which places the individual and the community at the center — aiming to reduce, prevent, and eliminate mine-related risks and to create a safe environment for the life and work of the citizens of Bosnia and Herzegovina (Constitution of Bosnia and Herzegovina, 2009: 3/1). The problem of mines and UXO in Bosnia and Herzegovina represents one of the primary security challenges the country has faced for three decades following the end of the armed conflict. The legacy of the 1992–1995 war continues to have direct consequences on the lives of citizens, economic development, and the overall stability of the state. During the war, more than one million mines and other explosive devices were laid throughout the territory of Bosnia and Herzegovina (Lisica, 2006: 45).

According to the initial assessment of the Mine Action Center of Bosnia and Herzegovina, the suspected hazardous area contaminated with mines and UXO amounted to 8.2% of the total territory of Bosnia and Herzegovina (BHMIC – Current Mine Situation, Plan and Report). Although the demining process began immediately after the cessation of hostilities, the pace was slow and resources limited, resulting in Bosnia and Herzegovina still being among the most mine- and UXO-contaminated countries in the world, thirty years later.

It is estimated that approximately 900 km<sup>2</sup> of territory across more than 100 municipalities remains at risk from mines and unexploded ordnance (*ibid*). More than half a million people live in close proximity to these hazardous areas, directly affecting their safety and freedom of movement. Minefields limit the use of natural resources, arable land, and forests, and significantly impact the quality of life, particularly in rural areas where agriculture is the main economic activity. In addition, the presence of mines and UXO poses a major obstacle to infrastructure development, tourism, and foreign investment. Consequently, the mine problem is not only a security issue but also an economic and humanitarian one.

Tragically, mine- and UXO-contaminated areas continue to claim lives even decades after the conflict. Since the end of the war, more than 600 people have been killed and over 1,700 injured (*ibid*). The victims are often civilians, including children, as well as deminers, farmers, and accidental passers-by. The fear of mines and UXO remains present in the everyday lives of citizens, contributing to a sense of insecurity and undermining public confidence in the ability of institutions to provide basic protec-

tion. A recent example occurred on August 30, 2025, when a nineteen-year-old man was fatally injured after entering a marked minefield in the village of Hodžići, Municipality of Doboj, while attempting to retrieve livestock that had wandered into the area. Consequently, it is evident that the problem of mines and UXO remains both current and relevant in Bosnia and Herzegovina, even thirty years after the end of the armed conflict.

Mines and UXO, as a legacy of the past, continue to represent a concrete and primary threat affecting all aspects of security in Bosnia and Herzegovina — from personal and humanitarian, through economic, to political. As long as even a single child cannot play safely, or a farmer cannot cultivate his field without fear, it cannot be said that full security and normalization of life in the country have been achieved. In this sense, mines and UXO represent a challenge, a risk, and a threat to security. Addressing this problem is not merely a technical matter of demining, but rather an integral part of a broader strategy aimed at building trust, stability, and the long-term development of Bosnia and Herzegovina (Kukuruzović, 2015: 13).

The challenge posed by this problem is not only humanitarian in nature. In the broader security context, areas contaminated by mines and UXO constitute a factor of instability and a potential source of security incidents, particularly in crisis situations or in the event of natural disasters, when access to affected terrain could become even more difficult. It is important to emphasize that Bosnia and Herzegovina lacks strategic documents in the field of security (such as the National Security Strategy and the Defense Strategy), which further complicates a systematic approach to solving the problem of mine action. In the absence of a clear state vision and coordination, different actors — from local communities to international organizations — operate in fragmented ways, which reduces both the efficiency and speed of the demining process (Kovačević et al., 2018: 255).

Consequently, the absence of a unified national response to the threat posed by mines and UXO can also be interpreted as an institutional risk. Undefined priorities within security policy are further complicated by political tensions and institutional dysfunction. This situation creates space for the long-term exposure of the population to direct danger and undermines confidence in the state's ability to provide basic protection to its citizens.

In the context of global changes in the security environment — such as increasingly frequent natural disasters and migration — the dangers posed by mines and UXO acquire a new dimension (Kovačević et al., 2017: 49). Climate change, floods, and landslides can shift or expose minefields, generating unpredictable risks. In the absence of national strategies, and consequently of action plans, the response to such situations remains reactive and limited, rather than proactive, preventive, and integrated into broader risk management policies.

## Etiology of Mine Action

An explanation of the etiology of mine action necessarily entails its conceptual definition. Mine action comprises a set of activities aimed at mitigating the socio-economic and environmental consequences of mine contamination. It does not deal

solely with demining operations, but also with people, the environment, and natural, material, and other assets, as well as with the effects that such contamination leaves on them. The goal of mine action is to reduce the risk posed by mines and UXO to a level that allows for safe living conditions — one in which contamination by mines and UXO no longer represents an obstacle to the overall development of society and in which the needs of victims are duly considered (Beridan et al., 2012: 25).

Mine action consists of five interrelated components: (1) humanitarian demining, (2) mine and UXO risk education, (3) victim assistance, including rehabilitation and reintegration, (4) stockpile destruction of mines and UXO, and (5) advocacy for the prohibition of anti-personnel mine use (International Mine Action Standards, 2003: 23). In addition to these components, a number of supporting activities are implemented to ensure high efficiency, quality, and stability of the overall process — such as mine situation assessment, priority setting, quality and information management, and training (Lisica et al., 2021: 54).

Humanitarian demining is the oldest and, in terms of financial, material, and human resources involved, the most dominant component of mine action. International standards define it as a set of activities leading to the removal of dangers caused by mines and UXO, including clearance, technical survey, mapping, marking, post-clearance documentation, integration of mine action activities within affected communities, and the handover of cleared land. Mine action may be carried out by various types of organizations, including non-governmental organizations, commercial companies, national mine action center teams, or military units (Ibrišimović et al., 2011: 17).

In practice, all activities related to mine action are often referred to as humanitarian demining or simply demining. This tendency results both from insufficient understanding of the issue and from the dominant role that humanitarian demining plays within the broader mine action process. The actual fieldwork — primarily involving the collection of information about suspected hazardous areas, cartographic work, database creation, and later the deployment to identified sites applying appropriate operational methods, leading up to the handover of cleared land to local authorities — is without a doubt a complex and highly responsible task (Kovačević, 2018: 667).

Mine and UXO risk education is a component of mine action aimed at reducing the risk from mines and UXO to an acceptable level that ensures the safety of people, the environment, and natural, material, and other assets. Its main goal is to raise awareness of the dangers posed by mines through education, media campaigns, and direct engagement with vulnerable target groups — in order to reduce the likelihood of new accidents and to emphasize the long-term nature of mine and UXO hazards (Lisica et al., 2021: 240–241).

Since the beginning of the war, the majority of mine and UXO victims in Bosnia and Herzegovina have been men between the ages of 19 and 39 who knowingly enter mined areas. They account for 64.42% of all victims and represent the most vulnerable group. Children under the age of eighteen constitute 8.06% of the victims. It is evident that, despite intensive mine and UXO risk education activities, more than 7% of victims in Bosnia and Herzegovina deliberately enter mined areas for various reasons. Unemployment and the struggle to secure means of livelihood for households with

no regular income are among the most frequent causes for entering prohibited and high-risk zones where mine incidents occur (RCSBH, Mine Risk Education Program).

Due to the importance of mine and UXO risk education within the overall framework of mine action, a specific Mine Action Strategy of Bosnia and Herzegovina (hereinafter referred to as the Strategy) has been developed. One of its strategic objectives is the establishment of permanent and sustainable educational capacities for the implementation of mine risk education within the educational system of Bosnia and Herzegovina. Among its operational objectives is the inclusion of educational content on mine and UXO risk awareness into the regular curriculum of primary and secondary schools, as well as the preparation of handbooks for students and teachers and the development of teaching materials. Mine risk education should by no means be underestimated as an activity within mine action when compared to humanitarian demining, even though in practice it may appear less demanding or less effective (BHMACH, Mine Action Strategy of BiH – Revised Document for the Period 2025–2027).

Victim assistance, including rehabilitation and reintegration, is a comprehensive process that encompasses medical, psychological, social, and economic components. Its goal is the full socioeconomic reintegration of mine and UXO victims into society (Lisica et al., 2021: 240–241). Therefore, this aspect of mine action aims to mitigate the consequences of mine and UXO detonations. In recent times, the reintegration of mine and UXO victims into society has proven to be of greater significance than the medical aspect of the problem.

This is particularly evident in parts of Africa and other regions of the world where certain prejudices and superstitions result in the social exclusion of mine and UXO victims from their communities. In Bosnia and Herzegovina, as one of the measures aimed at increasing the availability of medical assistance, mental health centers — in cooperation with primary rehabilitation centers — have been established at 62 locations, providing patients with free medical support. Seven “pain clinics” have been founded, and more than one hundred medical professionals have been trained to provide specialized care. Prosthetic devices are available to all, with the state contributing financially to their provision (Nikolić, 2006: 14).

The destruction of stockpiled anti-personnel mines represents a standardized procedure involving the physical elimination of mines and UXO, leading to the permanent reduction of state stockpiles of explosive devices. This process is usually carried out swiftly and efficiently (International Mine Action Standards, 2003: 23).

Advocacy for the prohibition of anti-personnel mine use refers to public support, recommendation, or positive publicity aimed at eliminating or at least mitigating the dangers posed by mines. The indirect economic consequences of wars — including the war in Bosnia and Herzegovina — include the loss of foreign markets, drastic technological and scientific stagnation, poor export performance, and the ecological problems caused by residual mines and UXO, all of which have long-term implications for the country's economic development, particularly in sectors such as tourism and other branches of industry (Ibrišimović et al., 2011: 18).

Armed conflicts of varying intensity since 1950 (beginning with the Korean War) have imposed the need to establish and develop capacities for conducting mine action. The origins of what is today known as mine action date back to December 1988, when



the United Nations established the first humanitarian demining program in Afghanistan. The term mine action was chosen to clearly distinguish between the removal of mines for humanitarian purposes and military mine clearance (Hasanagić, 2009: 9). That same year, the first international non-governmental humanitarian organization for mine clearance was founded — the Hazardous Area Life-Support Organization, better known by its acronym HALO Trust.

Following the establishment of this organization, the Mines Advisory Group (MAG) was founded, which in 1989 conducted the first research on the impact of mines and UXO in Afghanistan. Two humanitarian organizations — Norwegian People's Aid (NPA) and Handicap International — incorporated mine action programs into their operations in 1992, beginning in Cambodia and later expanding to other countries affected by this problem. It was during this period that the term mine action originated, when Canadian engineers proposed that the national body responsible for managing and coordinating mine clearance activities in Cambodia be named the Cambodian Mine Action Centre (CMAC). Following the example of the Cambodian center, most newly established national mine action centers adopted the same terminology in their English designations. Consequently, the Mine Action Center of Bosnia and Herzegovina, officially known in English as the Bosnia and Herzegovina Mine Action Centre (BH-MAC), represents the state agency responsible for managing mine action activities in Bosnia and Herzegovina and operates under the Ministry of Civil Affairs of Bosnia and Herzegovina. After the Gulf War, commercial organizations for humanitarian demining began to emerge, securing their first contracts in Kuwait. The first international standards for humanitarian mine clearance operations were published in 1997, followed by the first international guidelines for mine and UXO risk education the following year (Lisica, 2006: 50).

A serious and structured approach to addressing the problem of residual mines and UXO, particularly in the form of legislative solutions, began with the 1997 Ottawa Convention — formally known as the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction. This international treaty is commonly referred to as the Ottawa Convention, the Mine Ban Treaty, or the Convention on the Complete Prohibition of Mines (Beridan et al., 2012: 25–26), and it remains open for signature. Countries that have not signed the Convention include China, India, Russia, the United States, Israel, and both Koreas. In other words, the largest producers of anti-personnel mines have not acceded to it, as some of these states continue to consider mines an integral component of their defense systems. By signing the Ottawa Convention, the signatory states, among other obligations, commit themselves to removing all anti-personnel mines within their borders within a specified timeframe — a binding international commitment that requires signatories to take a serious, systematic approach to the development of national mine action systems (Kovačević, 2017: 189).

The United Nations recognized this issue as part of its mandate and consequently established a specialized agency — the United Nations Mine Action Service (UNMAS) — within the Department of Peace Operations. This service coordinates all aspects related to mitigating threats from mines and UXO. In addition to UNMAS, and with the goal of reducing the impact of residual mines and UXO, the Geneva International

Center for Humanitarian Demining (GICHD) was established in Geneva. This expert organization focuses on reducing the impact of mines, cluster munitions, and other explosive hazards, and it is responsible for the development of the International Mine Action Standards (IMAS). These standards serve as the foundation for the creation of national standards in countries affected by mine contamination and ensure the development of standard operating procedures (SOPs) tailored to the specific requirements of mine action operations (Hasanagić, 2009: 11).

In order to address the problem of mines and UXO in an organized manner, states establish national mine action bodies (centers). The position and role of these institutions within national security systems vary according to organizational approaches. For example, in Lebanon, the Mine Action Center operates within the Ministry of Defense, with the military taking the lead in such activities, while in Zimbabwe, the military is only one of several actors within the framework of the Mine Action Center. Prior to the outbreak of the conflict in Ukraine, Egypt was considered the most mine- and UXO-contaminated country in the world, and for the purpose of mine action, the Egyptian Armed Forces established a brigade-level demining unit (*ibid*).

## Etiology of Mine Action in Bosnia and Herzegovina

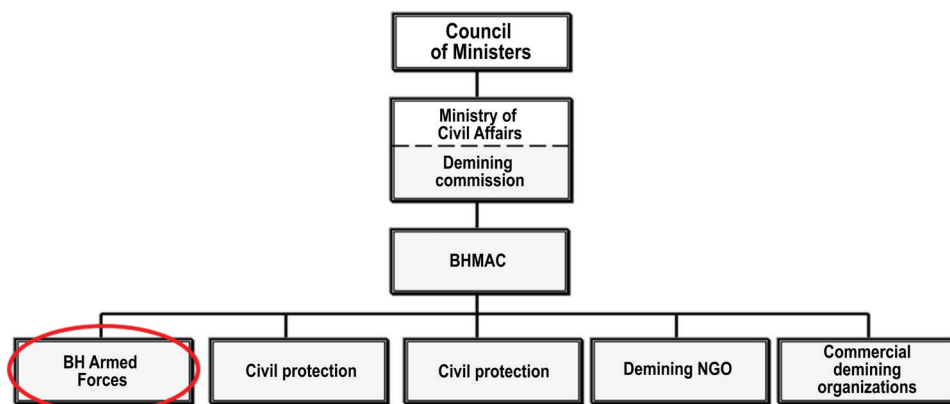
In Bosnia and Herzegovina, immediately after the cessation of hostilities — during the period from 1996 to 1997 — demining activities were organized in a spontaneous manner, without prescribed procedures or necessary coordination. According to the provisions of the Dayton Peace Agreement, the warring parties were obliged to remove all minefields and submit records of minefield locations within four months. However, it soon became evident that this would pose a long-term challenge for the country — an obstacle to its social and economic development — and that fulfilling these obligations within the stipulated timeframe would be impossible.

In January 1996, the Council of Ministers of Bosnia and Herzegovina requested assistance from the United Nations, and later that same year, the Bosnia and Herzegovina Mine Action Centre (BHMIC) was established. Its primary tasks included the establishment of a national framework for managing and coordinating humanitarian demining operations, representing Bosnia and Herzegovina at the international level, securing donor funding, assisting in the development of legislative solutions and their alignment with international standards, and formulating national Mine and UXO Clearance Standards as a foundation for a systematic approach to addressing mine contamination. The London Conference resolutions defined the long-term obligations of the Government of Bosnia and Herzegovina in the field of demining, drew attention to the severity of the mine and UXO problem in the country, and endorsed the establishment of a national mine action structure in the shortest possible timeframe. As a result, the Council of Ministers of Bosnia and Herzegovina established the Demining Commission of Bosnia and Herzegovina.

In July 1998, the entity-level mine action centers assumed responsibility for the coordination of mine action activities. Through both the state and entity mine action centers, the mine and UXO clearance program was implemented following the principle of emergency humanitarian demining. The adoption of the Law on Demining in



Bosnia and Herzegovina by the Parliamentary Assembly of Bosnia and Herzegovina stimulated the transformation of the entire mine action system (Zakon o deminiranju u Bosni i Hercegovini). Based on the provisions of this law, the authors developed an organizational scheme of mine action in Bosnia and Herzegovina, illustrated in Figure 1.



**Figure 1.** Organization of Mine Action in Bosnia and Herzegovina (Law on Demining in Bosnia and Herzegovina)

The Council of Ministers of Bosnia and Herzegovina adopted the first State Mine Action Strategy for the period 2002–2009, while the currently applicable document is the Mine Action Strategy of Bosnia and Herzegovina 2018–2025. The 2002–2009 Strategy represented a major step forward in guiding and monitoring the efforts of domestic authorities, donors, and other stakeholders. At present, 24 demining organizations are engaged in mine action in Bosnia and Herzegovina — including five governmental organizations, twelve non-governmental organizations, and seven commercial companies — all of which are functionally subordinated to the Bosnia and Herzegovina Mine Action Centre (BHMIC), as illustrated in Figure 1. Consequently, Bosnia and Herzegovina represents a rare model globally in terms of integrating all available national resources — human and material — from both the military and civilian sectors for mine action purposes. It is important to emphasize that mine action in Bosnia and Herzegovina falls under the jurisdiction of the Ministry of Civil Affairs, specifically the Demining Commission as the administrative authority, and BHMIC as the expert body (BHMIC – Current Mine Situation, Plan and Report).

Under the supervision of the Bosnia and Herzegovina Mine Action Centre (BHMIC), a national structure for managing and coordinating the humanitarian demining process has been established. Like any administrative organization or institution aimed at addressing the interests and problems of citizens, the management process of humanitarian demining is based on an organized system through which management instruments are used to achieve established objectives. The organization of mine action activities is grounded in the efficient management of mine risk,

achieved through continuous assessment, coordination, planning, and integration of all components of mine action into a unified and coherent system. The legal basis for the operation of this system lies in the Constitution of Bosnia and Herzegovina, while its functions and structure are defined by the Law on Demining in Bosnia and Herzegovina and the Law on Defense of Bosnia and Herzegovina.

Among the entities involved in the mine action process in Bosnia and Herzegovina, a particularly important role is played by the Armed Forces of Bosnia and Herzegovina (AF BiH), as they represent the largest demining organization in the country in terms of human and material resources. In understanding the complexity of mine action activities — identifying the specific characteristics of its components and the relationships among various actors involved — the Armed Forces of Bosnia and Herzegovina serve as a notable example of an integral part of the state-level system established to address the problem of residual mines and unexploded ordnance.

## Capacities of the Armed Forces of Bosnia and Herzegovina for Conducting Humanitarian Demining Operations

In the initial period following the cessation of hostilities in 1995, the then entity armed forces were involved in the demining process, conducting exclusively military demining. The establishment and development of demining structures at the entity level, and later at the state level, have been continuously progressing. In this way, the Armed Forces of Bosnia and Herzegovina (AF BiH) have acquired a very significant role and position in the implementation of mine action (Ministry of Defense of BiH – Training and Military Education Centers).

Regarding the capacities of the AF BiH for the execution of tasks within the domain of humanitarian demining, these capacities are organized through two units. It is important to emphasize that the AF BiH are not organizationally divided by branches or services in the traditional sense, but rather into two major structures that functionally integrate various branches and services — the Operational Command of the AF BiH and the Support Command of the AF BiH. The first unit is the Demining Battalion, which operates within the Operational Command of the Armed Forces, specifically under the Tactical Support Brigade. This unit is responsible for conducting humanitarian demining operations and UXO destruction. The second unit is the Center for Mine Action and UXO Destruction, which operates within the Support Command — comprising the Personnel Management Command, the Training and Doctrine Command, and the Logistics Command — and is specifically part of the Training and Doctrine Command (see Figure 2). This center is responsible for conducting training programs in the field of humanitarian demining and UXO destruction (Ministry of Defense of BiH – Structure of the Armed Forces).

The Demining Battalion of the AF BiH is the only governmental demining organization in Bosnia and Herzegovina that includes general survey teams within its organizational structure. These teams, trained by the Center for Mine Action and UXO Destruction of the AF BiH, participate in the process of general survey of military sites and other suspected hazardous areas in cooperation with BHMAL field teams. The primary objective of conducting general surveys of military locations is the identification of risks and the assessment of needs for technical survey, permanent marking, and demining operations. In this process, the AF BiH general survey teams, working jointly with the regional offices of BHMAL, collect data on suspected hazardous areas and mine threats for the purpose of updating the national database, reducing suspected areas, and supporting short- and long-term planning of mine action activities.

which includes two sections — the Humanitarian Demining Training Section and the UXO Destruction Training Section. The Department for Planning, Development, and Standardization of Training, which also comprises two sections — the Training Development and Standardization Section and the Planning Section. The Support Department, which, unlike the previous two, has a monolithic structure (no internal sections) and includes officers responsible for personnel, logistics, financial and material operations, communications, administrative affairs, and drivers/couriers (Ministry of Defense of BiH – Training and Doctrine Command).

The Center for Mine Action and UXO Destruction within the Armed Forces of Bosnia and Herzegovina (AF BiH) is a unit focused on planning, standardization, organization, and implementation of professional and specialist training, courses, and seminars in accordance with national and international standards. Its purpose is to prepare and train personnel who will participate in and conduct mine action and UXO destruction operations. In addition, one of the Center's key responsibilities is to coordinate and maintain cooperation in the fields of mine action (humanitarian demining and mine risk education), UXO destruction, obstacle emplacement (counter-mobility), and military demining (mobility) with other international mine action centers both in the region and worldwide (ibid).

When it comes to demining training, the AF BiH — through this Center — have achieved remarkable results, becoming widely recognized both domestically and regionally as an organization possessing all prerequisites to become a leading institution in the field of humanitarian demining and UXO destruction training. Using their own capacities, the Armed Forces have not only trained their own personnel but have also provided humanitarian demining training to members of other governmental, non-governmental, and commercial demining organizations operating in Bosnia and Herzegovina, as well as to members of the Armed Forces of Serbia, North Macedonia, Montenegro, and the Kingdom of Sweden. Besides training military personnel from Bosnia and Herzegovina and the region, the Center also conducts training for members of civilian companies and other governmental and non-governmental organizations in Bosnia and Herzegovina (BHMAL, 2023 Annual Report).

It is important to emphasize that over the past 30 years, the Armed Forces of Bosnia and Herzegovina have evolved into the largest governmental demining organization at the national level, accounting for 24% of the total demined area in Bosnia and Herzegovina. From their early post-war role, limited to military demining, the Armed Forces have developed into the leading governmental institution for humanitarian demining, currently contributing 25–30% of the total mine and UXO clearance activities in the country. Throughout the period 1999–2024, the AF BiH have maintained a steady trend of growth in efficiency and effectiveness, making a substantial contribution to the creation of a safe environment across Bosnia and Herzegovina. Today, the AF BiH represent the leading governmental, non-profit demining organization, playing a crucial role in ensuring a safe environment, establishing fundamental conditions for the reconstruction of war-damaged housing and infrastructure, unlocking economic and agricultural resources, and returning them to productive use. In addition, the core role of the AF BiH in mine action is oriented toward the implementation of state-interest projects that create conditions for the socio-economic development of the country

as a whole (BHMAC). Currently, the Armed Forces of Bosnia and Herzegovina have at their disposal 34 manual demining teams, nine mechanical preparation teams, nine explosive detection dog teams, six general survey teams, nine UXO destruction teams, and a unit for internal quality control of humanitarian demining (Ministry of Defense of BiH).

From the perspective of mine action, the strategic concept for the further development of the AF BiH is primarily based on the execution of humanitarian demining operations and directed toward supporting the achievement of the strategic objectives set forth in the national Mine Action Strategy. The emphasis is on strengthening human and technical capacities to ensure that the Armed Forces of Bosnia and Herzegovina fully meet these strategic goals and double their current level of participation in the demining process.

## *Conclusion*

The danger arising from the use of mines and unexploded ordnance (UXO) becomes apparent only after their deployment. Therefore, the engagement of the entire international community is essential — first, to establish the legislative foundations for addressing this issue (with the world's leading powers acting as guarantors of compliance with adopted international instruments), and subsequently, to create practical mechanisms (for example, by engaging United Nations agencies to deploy international demining teams) that would enable the commencement of humanitarian demining operations immediately following the cessation of armed conflict in any affected territory.

Like many countries where armed conflicts have taken place, Bosnia and Herzegovina continues to face the problem of mines and UXO, which, in addition to posing security risks to people, the environment, and natural and material assets, also represent a significant socio-economic obstacle to the country's overall development. Recognizing the importance of demining — as a prerequisite for the return of displaced persons, economic recovery, and the use of natural resources — Bosnia and Herzegovina gradually developed the legal foundations and institutional structures for implementing the mine action process, in accordance with international conventions, treaties, and standards. In this process, Bosnia and Herzegovina received crucial international assistance, particularly in the early stages, which played a decisive role and ultimately resulted in the establishment of a strong and self-sustaining national mine action system.

From the analysis presented, it can be concluded that the Armed Forces of Bosnia and Herzegovina (AF BiH) engaged exclusively in military demining for only a brief period and, in a relatively short timeframe, managed to develop the capacities and capabilities necessary for conducting mine action operations — initially focused on mine and UXO clearance, and later encompassing other components of mine action in accordance with humanitarian demining standards. A key turning point occurred with the adoption of the Law on Demining in Bosnia and Herzegovina and the Law on Defense of Bosnia and Herzegovina, which redefined the national security framework

and led to the establishment of a unified demining structure within the AF BiH. This ensured centralized planning and management alongside decentralized execution of demining operations.

From an organizational standpoint, the role of the Armed Forces of Bosnia and Herzegovina in humanitarian demining operations is multifaceted. The AF BiH represent both an actor and a core component of the national mine action system, simultaneously serving as an implementing force. They plan, organize, lead, and supervise mine action activities, while also directly executing humanitarian demining tasks on the ground.

Furthermore, the AF BiH serve as the primary training authority for mine action within Bosnia and Herzegovina's broader security system. They have trained the majority of deminers currently active not only within the AF BiH but also in other national and international demining organizations around the world. The Armed Forces possess the resources and capacities necessary for the effective management and execution of all segments of mine action, thereby demonstrating the capability to conduct humanitarian demining operations. Future capacity development should focus on modernization of technical equipment, exchange of knowledge and experience at the international level, and continuous professional development of personnel through specialized courses and training. Of particular importance is the strengthening of national institutions and training centers, ensuring the long-term sustainability of the demining process. Thus, it can be conclusively stated that the initial hypothesis — 'The capacities of the Armed Forces of Bosnia and Herzegovina enable the conduct of humanitarian demining operations' — has been confirmed

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## Summary

The destructive impact on human populations has been a common feature of all wars throughout history — not only during the hostilities themselves but also long after their cessation. One of the most insidious legacies of modern warfare is the presence of landmines and unexploded ordnance (UXO). Many countries that have experienced armed conflicts continue to face this persistent problem. It represents a unique security threat, posing simultaneous dangers to human life, the environment, and natural and material assets, while also acting as a latent socio-economic burden

on society as a whole. Within the Southeast European region, Bosnia and Herzegovina ranks among the countries most heavily contaminated by mines and UXO. The aim of this paper is to present practical experiences concerning the etiology of mine action and to analyze Bosnia and Herzegovina's capacities for conducting humanitarian demining operations as a segment of the overall mine action framework. The focus is on the military sector as an integral part of the unified national mine action system established at the state level and directed toward addressing the problem of residual mines and UXO. Accordingly, the paper tests the hypothesis: "The capacities of the Armed Forces of Bosnia and Herzegovina enable the conduct of humanitarian demining operations." A combination of scientific methods was applied, including induction and deduction, analysis and synthesis, and definition and classification. The emphasis is placed on examining the military component of Bosnia and Herzegovina's national mine action system, which is characterized by the equal participation of both civilian and military sectors — a model rarely encountered globally. The Armed Forces of Bosnia and Herzegovina represent the largest governmental organization engaged in humanitarian demining operations in the country.

The paper consists of four sections, providing a comprehensive overview of the capabilities of the Armed Forces of Bosnia and Herzegovina in humanitarian demining. The first section discusses the impact of mines and UXO on national security, emphasizing the security of the population as a key element of state stability. The second section outlines the global etiology of mine action, with a particular focus on defining its conceptual framework. The third section traces the development of mine action in Bosnia and Herzegovina from 1995 to the present day, while the fourth section presents the current capacities of the Armed Forces of Bosnia and Herzegovina for conducting humanitarian demining operations.

Keywords: *mines, humanitarian demining operations, Armed Forces of Bosnia and Herzegovina*

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