



RABEK
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SECURITY AND CRISIS MANAGEMENT -THEORY AND PRACTICE

SAFETY FOR THE FUTURE 2022

PROCEEDINGS



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FOREWORD

*A forum **Safety for the Future** arose out from the idea and the need to see security problems as a whole, and yet separately, through a prism of scientists and experts to bring science, company practice and economy together. The forum contains several important events: the International Scientific Conference "Security and Crisis Management-Theory and Practice", an exhibition of tools and equipment, demonstration exercises on the usage of different assets and equipment in various security activities and numerous debates and discussions with a variety of topics.*

This year, for the eighth time, we are realizing the conference "Security and Crisis Management-Theory and Practice", with new elements of researching security phenomena in the field of crisis management, but also including all related areas. The fact is that the environment in which individuals and legal entities exist is increasingly complex, and the range of phenomena that affect the security of an entity is becoming wider. It is consist of familiar and unfamiliar circumstances. Managing those circumstances is possible to a certain extent if there is an optimal and necessary quantum of knowledge. Hence, knowledge is the foundation on which is necessary to build the capabilities of individuals and legal entities to be able to recognize, prevent and react to threats.

Crisis management has become an everyday need, essential for the survival of individuals, companies or society as a whole. It is more and more difficult to assess the risk of events with negative effects at the very beginning of their occurrence, and coping with negative consequences leaves harder effects on society. Scientific research of security phenomena has become the priority of society's sustainable development. Scientific knowledge is necessary for systematic knowledge of phenomena in the environment, and practice for checking their usability.

Scientific findings do not always come to those who perform security tasks, such as individuals or legal entities. Therefore, there is a need for scientists and experts to meet and exchange ideas, opinions and knowledge. Materialization of knowledge is carried out daily in the process of modern business and management. Exposed to the impacts of a turbulent environment, and focused on sustainability, modern business and management require permanent monitoring of changes and adaptation to these changes.

Comprehension of the environment in which modern society exists is possible if there is the necessary knowledge of the phenomena that characterize it. That knowledge provides an opportunity for preventive action through an efficient risk assessment system. Only knowledge, formed as a symbiosis of science and profession, has quality and strength, which guarantees the possibility of preventive action and an optimal level of readiness to react to negative events. The resistance of contemporary society to negative events depends on the degree of knowledge development.

*This year's conference is organized in specific conditions, with physical gatherings. Namely, the world is facing a serious risk of an outbreak of armed conflict on a global scale. Not analyzing the necessity of solving international disputes through war, it is the fact that in the year 2022 we are standing on the edge of possible war between the Russian Federation and NATO. That automatically implies the conflict on a global level. The special military operation, conducted by the Russian Federation on the Ukrainian territory, has triggered a sequence of events which affect the security of the whole world (economy, demography, energy, finances, etc.). This crisis is just another proof that forum **Security for the Future** properly observes the complexity of the security environment and steers it towards crisis management. Bearing in mind that it is not possible to put all the problems in one Proceedings*

or to answer all the questions, the forum will continue to deal with the contemporary security challenges, risks and threats in the future, as well.

Proceedings from the 8th International Conference - Security and Crisis Management - Theory and Practice, present a new value in the observation of a portfolio of security phenomena at the strategic, company, and individual levels. The papers published in the proceedings are new findings and views of the authors. A wide range of issues, confirms the assumption of the necessity of such a conference. The papers presented at the last seven conferences have unambiguously demonstrated the need for regional cooperation and the harmonization of joint capacities. And spreading knowledge becomes a priority in the development of a security culture.

The proceedings represent a review of existing knowledge, a source of new knowledge, assistance to researchers and practitioners in solving security problems, support for those who practically deal with security and a source of an initiative to improve existing knowledge in the field of security, management and engineering.

We hereby invite all interested scientists and professionals to improve the quality of future publications with their papers.

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EMERGENCY SITUATIONS CAUSED BY BIOTERRORIST ACTS AND LARGE PANDEMICS IN THE MIRROR OF THE COVID-19 PANDEMIC

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Review paper

Abstract: *Emergency situations arise as a result of various events. The paper analyzes the relationship between bioterrorism and the pandemic of infectious diseases, with special emphasis on KOVID-19.*

Infectious diseases are understood as one of the leading safety risks, due to the consequences they can cause. The most serious consequence of a bioterrorist attack is a globally distributed infectious disease that would cause massive human diseases and numerous disorders in the health, economic, cultural and every other segment of the functioning of society.

Research has shown that since the early stages of the KOVID-19 pandemic, there have been various theories about the origin of the virus. With the development of modern terrorism, the probability that a terrorist group will decide to use biological weapons is growing day by day. The inductive-deductive method was used in the paper, as well as the method of content analysis.

Key words: *emergency situations, bioterrorism, pandemic, COVID-19*

1. INTRODUCTION

Emergency situations represent a constant combination of different events and testing the ability of society and the state to successfully manage and provide assistance to the population in such a situation. It can be stated that emergencies have become more frequent in recent times, and are caused by various events, while their consequences for man, material goods and the environment are becoming more severe. It should be especially noted that different definitions of emergency situations are oriented to the sources of threats and the ways in which society operates.

Terrorist acts and threats have become everyday and a serious way of endangering the state, the individual and society. Advances in technological development indirectly affect the advancement of technology used by terrorist groups in their actions. The current threat of terrorism differs from that of the past in changing tactics, increasing activity, strengthening

destructiveness. There is more and more talk about the concepts of postmodern terrorism, which aims to draw attention to the use of weapons of mass destruction in terrorist attacks, including biological .

In the conditions of modern conflicts, biological warfare is also possible. Biological agents, intentionally or unintentionally used, are silent weapons, which are used to wage war without destruction, with pronounced side effects and severe consequences for the population. What is characteristic of this type of warfare is the fact that they harm not only man, but also his environment, flora and fauna. The abuse of science (genetic engineering, bio and nanotechnology) will make these threats even more intense. The basic premise of the paper is the current state of the pandemic that has occupied the world and caused the declaration of a global state of emergency. This declaration of a state of emergency as well as new perspectives on bioterrorism were the motives for drafting this paper.

2. EMERGENCY SITUATIONS

Frequent natural disasters in recent years, with the consequences they cause, significantly endanger the social community, human lives, material goods and the environment. The topicality of emergency situations induces the constant need of the social community to find an adequate response to the security threats. By declaring a state of emergency, the social community creates a specific legal framework that enables the engagement and use of all available resources of the society in protection and rescue (Krsljanin, Karovic, 2015).

In 2018, the National Assembly of the Republic of Serbia passed the Law on Disaster Risk Reduction and Emergency Management. Earlier, this area was regulated by the Law on Emergency Situations, which was passed in 2009, with amendments from 2011 and 2012. Article 2, paragraph 7 of the Law on Risk and Disaster Reduction and Emergency Management defines the meaning of the term "emergency", which means a situation that arises from a declaration by the competent authority when risks and threats or consequences for the population, life environment and material and cultural goods of such scope and intensity that their occurrence or consequences cannot be prevented or eliminated by regular action of competent bodies and services, therefore for their mitigation and elimination it is necessary to use special measures, forces and means with intensified regime (Law on Disaster Risk Reduction and Emergency Management, Sl. RS Gazette, no. 87/2018.).

Emergencies are caused by a certain development scenario, the impact on humans and the environment, and the scale and effects of the phenomenon. Having in mind the above, emergency situations are most often classified according to the cause, speed of development and the extent of the effects of the emergency situation (Savix, Stankovix, 2012). It should be especially noted that emergencies, caused by natural disasters or human activities, take many human lives every day and destroy and degrade the environment in various ways, causing great material damage and losses. Bioterrorist acts are one of the most dangerous causes of emergencies, where the consequences are not limited to one country, but also to the rest of the world.

3. BIOTERRORISM IN THE MODERN WORLD

The term bioterrorism implies the misuse of biological agents for terrorist purposes, for political, economic, religious, ideological reasons. In order to complete the conceptual definition of bioterrorism, we must not skip the concept of biocrime act, which means any possible abuse of biological agents, ie. criminal acts of illegal production, theft, resale and use of biological agents from purely material motives (Ristanovic, 2016).

Bioterrorism involves the use of biological agents (weapons) with the intention of causing death or serious infectious diseases in unprotected human populations, plants and animals, and in order to achieve certain political, religious, socio-economic or criminal goals. It includes: the use of biological agents (causes of vicious diseases) for terrorist purposes and as weapons of mass destruction of enemy armed forces and resistance forces in local and regional wars, then scientific research of biological weapons and misuse of scientific knowledge in the field of genetic engineering super germ-killer of innocent people, in the end it means all forms of (quasi) scientific experimentation with germs on animals and humans, because they have so far endangered humanity (eg experimentation with HIV and Ebola), as well as production and smuggling of biological weapons and illegal sale of special samples of dangerous strains of bacteria, viruses and their toxins, etc. (Jovic, Savic, 2004).

Considering bioterrorism as a modern security threat and the probability of the use of biological agents by a terrorist organization, it must be emphasized that the security and academic communities that deal with this phenomenon are divided. As according to Leitenberg Milton, who is the leader of those bioterrorism theorists who firmly believe that "the risk of the use of biological weapons by terrorists is systematically and intentionally exaggerated" (Leitenberg, 2006). Clark William goes a step further and argues that "it is almost inconceivable that even one terrorist organization we know is capable of developing biological weapons and deploying them in the United States" (Clark, 2008).

According to the author Cvetkovic, quoting Chris Hawley, Gregory Noll and Michael Hildebrand, there is a large selection of biological agents that can be used to carry out terrorist acts (Cvetkovic, 2013). He states that legitimate biomedical and biotechnological institutions use various microorganisms on a daily basis, which, even without special modifications, are very effective biological agents that can be used for terrorist purposes. Also, the prominent author states, quoting Bruce Alberts, that terrorist groups can come into possession of biological agents in different ways: by stealing from official institutions; buying on the black market; by obtaining from friendly governments and own production in equipped or improvised laboratories (Cvetkovic, 2013).

The use of biological weapons by terrorists is affected by its availability, primarily in clinical and microbiological laboratories, then in government institutions, certain schools and the like. In addition, biological weapons make attractive and simple and cheap production, covert and efficient use, specific action, causing mass disease, causing panic, problems, inability to fully control, dependence on various conditions, experts and lack of information (Cvetkovic, 2013).

It is unlikely that states are ready to use biological weapons, and if they do, they will use them more in war conflicts to control political crises.

4. PANDEMIC OF INFECTIOUS DISEASES AS A FORM OF BIOTERRORISM

In the changed global security structure of the modern world, infectious diseases are recognized as one of the leading security risks, precisely because of the dimensions of possible consequences they can cause, as evidenced by epidemics that changed human history in the past (plague, smallpox, Spanish flu) and its consequences. left behind by the Ebola or AIDS epidemic as an interplanetary plague of the new age. The misuse of microorganisms and their products for terrorist purposes - bioterrorism, today represents a great security risk and a real danger, especially due to the possibility of misuse of genetic engineering and biotechnology (Mudrinic, 2021).

Throughout history, pandemics of diseases such as cholera, plague and influenza have played a major role in shaping human civilizations. Although pandemics are usually characterized by

occurring in a short period of time, today several infectious diseases survive at high incidence rates, occur globally, and can be transmitted between people directly or indirectly (<https://www.britannica.com/science/pandemic>).

People realized early on that some diseases are transmitted by contact with sick people and animals or their secretions, which they used to deliberately cause disease and weaken the war potential of the enemy. That is why it can rightly be said that biological weapons represent a danger as old as human society and civilization as a whole (Ristanovic, 2016).

In the short and fortunately not so rich history of bioterrorism, we can say that the international community has experienced only a few verified bioterrorist attacks. In a study conducted by Seth Carus, who covered the period from 1900 to 1998 through a unique and comprehensive study, year and described 180 cases of targeted malicious use of biological agents by various non-state endangered entities. However, only five are qualified as a terrorist attack with successful realization and fulfilled goals. Referring to a study by the University of Maryland that dealt with the application of chemical, biological, radiological and nuclear (HBRN) agents in the activities of non-state actors in the period 1996-2016, year, Ackerman Gary and Michelle Jacome point out that in 4 years (2012–2016) there were only 11 incidents in which non-state actors prone to violence used biological agents. These are incidents of small scale and without significant consequences. The Japanese apocalyptic sect Aum Shinrikyo occupies the most important place in the history of bioterrorism. The sect became known to the general public after the sarin attack in the Tokyo subway in 1993. Aum was in the period 1990-1995, carried out several bioterrorist attacks on various targets in Tokyo, using botulinum and anthrax. However, due to technical shortcomings in the dissemination of agents and the use of the pathogenic anthrax strain, these attacks did not have the planned effects and went completely unnoticed by the security authorities (Kokoskov, Trbojevic, 2020).

Protection against biological weapons has little in common with protection against chemical and nuclear weapons due to the great differences between them, but some procedures and principles can be used for biological protection. Also, it can be said that a big problem is the answer to the question - is it a natural disease or bioterrorism. If it is suspected that it is bioterrorism, it is first necessary to conduct a field epidemiological investigation in order to collect all relevant data that will enable the suspicion to be confirmed or rejected. Also, it is necessary to determine as soon as possible the possible way and path that led to the disease, in order to take effective control measures (Cvetkovic, 2013).

5. COVID-19 PANDEMIC AS A FORM OF BIOTERRORISM

For the health systems of the state, it is completely irrelevant whether the pandemic disease arose as a natural process or as a consequence of the destructive one. Their task is to save the lives of sick people and prevent further spread of the infection. If the mass illness of people is viewed from the point of view of national security as a possible consequence of someone's actions, then it is also a topic for the security structures of the state, with bioterrorism emerging as a possible cause of such an event (Kokoskov, Trbojevic, 2020).

Probably, the most serious consequence of a bioterrorist attack is a pandemic, ie. globally distributed infectious disease that would cause massive human diseases and numerous disorders in health, economic, cultural and any other segment of the functioning of society. In that sense, the current pandemic KOVIDA-19 is a very convincing and well-argued example of the extent to which the global medical crisis is becoming a geopolitical, but also a security problem. Based on previous experiences in preventing the spread and eliminating the consequences of KOVIDA-19, we can say that most countries have shown insufficient

efficiency of national health systems in terms of shortage of doctors, specialist equipment and medicines, hospital facilities and others. (Kokoskov, Trbojevic, 2020).

At the end of 2019, a virus closely related to the SARS coronavirus appeared in Wuhan, China. The virus, later called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), caused a disease known as KOVID-19, which was similar to SARS and was primarily characterized by fever and respiratory symptoms. The virus was also highly contagious, spreading across regions of China, the United States and Europe in early 2020, and was transmitted by travelers from the affected regions. In March 2020, the World Health Organization declared the epidemic a pandemic, and travel to, from, and within many countries was severely restricted in an effort to control its spread ([https://www.britannica.com/science/coronavirus-virus - group](https://www.britannica.com/science/coronavirus-virus-group)).

The pandemic caused by the coronavirus in 2020 (KOVID-19) affected all segments of social life and the health, political, economic and cultural plan. At the time of writing, the total number of patients in the Republic of Serbia was 2,018,890, the total number of tested was 9,750,019, the total number of deaths was 16,091 and the mortality rate was 0.80%. Worldwide, 410,565,868 people became ill with the coronavirus and 5,810,880 people died (<https://covid19.rs/>).

The consequences of the pandemic have affected, in addition to the danger to human health, also limited or conditioned freedom of movement, reduced physical contacts, cancellation of travel and other plans. The consequences of the pandemic disease caused by the coronavirus are of unprecedented proportions. The spread of the virus takes lives and livelihoods. It will take the world a long time to overcome the consequences of the pandemic and return to the normal state it was before the pandemic.

From the early stages of the KOVID-19 pandemic, there have been theories about the origin of the virus. In March 2020, the US State Department called on the Chinese ambassador to protest the statements of a Chinese spokesman, who suggested that the virus was brought to Wuhan by the US military, allegedly as a biological weapon (<https://www.reuters.com/article/us-health-coronavirus-china-diplomacidUSKBN2102XW>). The US senator then suggested that the virus was the result of a failed Chinese biological weapons program (<https://www.nytimes.com/2020/02/17/business/media/coronavirus-tom-cotton-china.html>). Of course, the Chinese authorities have strongly denied such allegations. A kind of information war between the great powers on this issue is being waged to this day.

Given the different views on the origin of the Corona virus, unknowns and dilemmas in the scientific and professional public, the cause-and-effect relationship between the Corona virus and bioterrorism at this time, in the author's opinion, can neither be confirmed nor denied. What cannot be denied is that during the pandemic, the problem of crisis communication was noticed, which was expressed through many different, often diametrically opposed attitudes of different actors, which led to a number of harmful consequences during the fight against the pandemic.

6. CONCLUSION

Emergency situations, which are defined in the legal framework of the Republic of Serbia, cause various damages to the social community. The legal framework of emergency situations in the Republic of Serbia defines the key elements and competencies in such a situation. A state of emergency can be caused by various events. All these conditions that the society, ie the state, should be prepared to be able to react in such a situation and to be organized so that it can manage an emergency situation. This means that it is capable of enabling the protection and rescue of the population and material goods in such conditions.

It has been stated that bioterrorism has so far been perceived as unlikely, but potentially very harmful to the world. But with the development of modern terrorism, the likelihood that a terrorist group will decide to use biological weapons is growing day by day.

It has been determined that infectious diseases are perceived as one of the leading security risks, due to the consequences they can cause, which can be seen from the epidemics that have befallen humanity in the past.

It was pointed out that, as far as the use of the pandemic virus for bioterrorist purposes is concerned, in the short and fortunately not so rich history of bioterrorism, the security community has experienced only a few verified bioterrorist attacks.

It was pointed out that for the health systems of the state, it is completely irrelevant whether the pandemic disease arose as a natural process or as a consequence of a destructive act, their task is to save the lives of sick people and prevent further spread of the infection.

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