



Overview of the Legal Aspects of Bioterrorism and its Threats

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ABSTRACT

Background

Terrorism manifests itself in various forms. Bioterrorism is a new form of it, which has emerged with weapons and perilous consequences, including killing human beings. In this context, this research seeks ways to deal with it.

Materials and Methods

This research has been done using library resources in a descriptive-analytical manner.

Ethical Considerations

Honesty and fidelity in writing the text have been observed.

Findings

Bioterrorism is based on human knowledge. Among the solutions that can reduce the dangers of bioterrorism are preventing the globalization of bioterrorism, imposing severe penalties for the perpetrators, identifying and introducing users of bioterrorism, and monitoring related scientific sites.

Conclusion

Bioterrorism has become a serious and international threat in the contemporary world. At first glance, efforts should be made to eradicate it and then reduce its threat. Moreover, the international community must make severe and strict laws against this threat. Therefore, criminal law is necessary. Also, monitoring scientific sites is one way to deal with bioterrorism.

Key words

Terrorism, Bioterrorism, Legal Solutions, Confrontation, Threats.

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INTRODUCTION

A. Preface

Since the beginning of human life, there has been war and violence, and these wars' resolution is one of the necessities. One of these threats is the misuse of scientific and technological advances that may arise in bioterrorism or the production of biological weapons. This means that in the sciences of microbiology, biotechnology and chemistry, new methods of terrorist activities have emerged, namely bioterrorism [1].

Evidence of the production and development of biological weapons and their use in bioterrorist incidents and the risk of developing new biological agents has been presented as a threat to human security. For example, the expansion of research and development in chemical weapons has created threats to the world. Among the threats seen by Iraq [Saddam's time] was biological weapons construction [2]. This also applies to the spread of diseases such as cholera, plague, etc., which have been debated about their intentionality. However, in order to deal with human biological factors, many judicial and legal measures have been taken in the international and domestic arenas [3]. Therefore, the purpose of this study is to study bioterrorism historically and then provide solutions to combat bioterrorism before and even after its occurrence.

Numerous books and articles have been written about bioterrorism, some of the most important: Ahmad Moradkhani and Fatemeh Rahmani (2018), in their article on the jurisprudential

and legal study of bioterrorism, consider one of the goals of bioterrorism to be overcoming Muslims and killing them. The article of passive defence in national security and countering bioterrorism considers the recognition of potential threats as one factor to strengthen the country's national security. (2016). One of these critical categories in understanding the examples of bioterrorism and ways to penetrate the country Hossein Hatami (2010).

B. Background

In a review article on bioterrorism and biological defense, Hossein Hatami considers military and civilian care, including public education, as a way to deal with bioterrorist threats that have expanded significantly today in the light of scientific and technological advances. More importantly, biological defense requires specialized solutions that are made possible through modern methods and awareness of bioterrorist threats. Hamidreza Tavakoli (2003) also states the Vulnerability of food to biological threats in his article. The above research, considering that it has placed bioterrorism at the top of its research goals, is considered as a pendant for the present research.

C. Terms and Concepts

1- Terrorism

The word terrorism is derived from the Latin root *Ters* [23] and in Arabic, the equivalent of the word intimidation means to create fear and terror [4].

2- Bioterrorism

Bioterrorism is an example of terrorism that involves the deliberate release of biological agents. These agents are bacteria, viruses, or toxins in their natural form or a manipulated human form. These threats are intentional because they may be produced and disseminated in laboratories [5]. Bioterrorism has a dual aspect that can both enable the use of up-to-date knowledge for biological advances [24] and, in other words, lead to the production of bio-weapons in biological laboratories [6].

D. History of Terrorism

Although bioterrorism is a new and modern term in terms of form, microbial and biological methods to threaten and destroy others is a long-standing method that has existed since ancient times [7]. Over time, newer warfare methods were developed, each using a specific type of bioterrorism. It is even said that during World War I, the Germans used unique methods to infect animals and transmit the disease to allied countries [8].

Precisely, and from the perspective of modern developments, in 1978, a man named Mullen identified new types of terrorist weapons that make them very useful in destroying and killing and challenging to detect. As he concludes in his study, of the three types of nuclear, chemical, and biological weapons threats, the third is much more dangerous and invisible. It is even more comfortable and more scientific to use [9]. Examining the historical course of bioterrorism, we conclude that bioterrorism as a tool to overcome the enemy and even destroy it

is a relatively new weapon that has been developed in the contemporary centuries with the help of scientific and technological advances. Thus, however, the misuse of scientific achievements to destroy humans and their living environment has a long history [10].

E. Dimensions and Effects of Bioterrorism

Bioterrorism is the product of technological and scientific advances that have also provided new solutions for terrorists [9]. Also, the target community of bioterrorism is unknown and sensitive. For example, bioterrorism can be urban and wastewater treatment plants, urban water reservoirs, urban and rural food [11].

Target pathogenic and strategic points as well as densely populated areas for their destructive activities. This is the reason why terrorists are trying to take advantage of these ways to achieve their sinister goals, and instead of armed and overt activities, they are choosing more covert and effective activities that have more destructive power. These activities target the general public so that there is a large gap between identifying the causes and coping strategies [12].

In terms of effectiveness, it should be said that the production, proliferation, dissemination and movement of biological weapons is much easier than military weapons such as bombs. Therefore the tendency of terrorists to use these weapons has spread, and today, this weapon has become one of the tremendous global dangers. The spread of bioterrorism is vast and endangers various age and demographic

spectrums. It is also effortless to use and can make any terrorist group think of using it. In the case of threatened populations, military, civilians, young and old, children, the elderly, and men and women can be targeted [13]. Therefore, biological weapons have many advantages over other weapons that, despite not being observed, can cause significant damage. Therefore, bioterrorism can include the deliberate use of pathogens such as food, water, pathogens such as insects, animals, and toxins in the general form of biological weapons [14].

F. Features of Bioterrorism

The accumulation and development of bioterrorism are one of its features. In other words, with the development of science and technology, its methods and tools also change. In other words, the development of bioterrorism and science are intertwined, and bioterrorism can use scientific methods to destroy as much as possible. From this perspective, the technology of production, reproduction and proliferation of biological weapons is influenced by scientific advances and develops and evolves with new sciences and technologies [15].

For this reason, it can even be said that the nature of biological weapons and bioterrorism, in general, is the lack of need for complex and challenging technology to spread and expand it [16]. Given the characteristics of bioterrorism, identifying its species is also essential. These agents are commonly found in nature but are mutated and altered by specialists to increase their ability to cause disease and resist current

drugs or increase their ability to spread in the environment. These biological agents can spread in the air, water and food. Terrorists tend to use bioterrorism because they are challenging to identify and show signs for hours or days, and they are comfortable and cheap to obtain. Types of bioterrorism agents in American law include:

The US Centers for Disease Control and Prevention categorizes these factors into groups A, B, and C; Category: A These are hazards to national security and can be easily transmitted and disseminated and cause high mortality. For this reason, bioterrorist threats mainly come from individuals and groups who live even outside the country and can be threatening [17].

MATERIALS AND METHODS

This research is a theoretical type; the research method is a descriptive-analytical one.

DISCUSSION

After examining the historical course, dimensions and effects of bioterrorism, we need to analyze its individual and social effects as well as pay attention to legal solutions in the domestic and foreign arenas to eliminate or reduce its losses and damages.

A. Judicial Policy

One of the legal and criminal solutions to deal with these threats is to prevent creating a gap between the action and its effects, which, if neglected, can make legal and judicial prosecution difficult. For example, when a city is infected with a virus, its effects and

consequences may be apparent for a long time, which can create criminal immunity for the perpetrators. Because they can claim that they did not commit such an act because the gap between the terrorist act and the terrorist catastrophe has widened to such an extent that it is difficult to find the perpetrators. For this reason, the perpetrators can even free themselves from the intended criminal law [18].

B. Bioterrorism in the International System

The most important practical and international solution to counter bioterrorist threats is to establish an international institution or organization such as the International Atomic Energy Agency that can identify and counter biological activities. The argument in defense of establishing a criminal or institutional body to counter bioterrorist threats is that biological weapons are secretly produced and may be carried out due to long-term activities in research and laboratory centers. Or special experimental conditions [13].

Accordingly, another effective strategy that can be proposed to combat bioterrorism is a global understanding and approach to counter-terrorism that governments can never pursue as actors isolated from the international system. Accordingly, countries' criminal policy to deal with the phenomenon of bioterrorism should take a global and extraterritorial approach. For example, the Criminal Code of Azerbaijan, adopted in 2000, recognizes terrorism as universal and deals with foreign or stateless perpetrators, even if they are outside the

country's borders. International conventions always respect the competencies that domestic law provides for the government and provide for other competencies; Such as jurisdiction over the terrorist offence of a stateless person Or jurisdiction where a terrorist offence has been committed to compelling a country to commit or not to engage in the conduct. Also, international organizations, including the UN Security Council, are significant and influential in countering bioterrorism. Chapter Six of the UN Charter, which refers to the "peaceful settlement of disputes" to achieve international peace, must pursue this issue more seriously.

Under Article 34, paragraph 6, the Security Council may consider any dispute or situation which may give rise to international friction. The Security Council must determine whether the continuation of the dispute or the situation endangers the maintenance of international peace and security. In Chapter 7, action on threats to peace, breaches of peace and acts of aggression can be used to counter bioterrorism as an international threat.

Accordingly, by Article 39 of the Security Council, the existence of any threat to peace, breach of peace, or act of aggression is established. It makes recommendations or decides what measures to be taken by Articles 41 and 42 to maintain or restore international peace and security. For example, in line with its mission of promoting world peace and security, an institution such as the Security Council can stop terrorist activities by banning financial facilities and preventing financial transfers to create a bioterrorist threat [25].

For example, the activities of dubious scientific institutes, which also receive large sums of money from governmental and non-governmental organizations, can be monitored by the Security Council as guardians of international peace and security. Even the council can stop or outlaw some notorious individuals and groups who engage in money laundering inside and outside the country [19].

C. Bioterrorism in Armed Conflict

Public health and preparedness for society members is a must to combat bioterrorism. Because the destructive and widespread destructive effects of bioterrorism enter society. If the people do not observe the public health and the necessities of dealing with a virus or a deadly agent, it will become an internal, regional and even global epidemic that will have harmful economic and social effects. In any case, the high potential for destruction and the anonymity of these threats is a devastating blow to public health [15].

Besides, the activities of other international organizations and institutions that investigate the damage and crimes caused by terrorist incidents should include "bioterrorism" and its destructive and deadly effects and consequences among war activities. So that bioterrorists are subject to heavier punishments. Among these, we can mention the International Committee of the Red Cross's role. This is because the committee reports on transferring some criminal and terrorist acts to higher institutions, including the United Nations [20].

From the perspective of international humanitarian law, any activity that leads to violence against civilians with the support of a particular group or country is considered unconventional and is punishable as a non-combat activity. Therefore, the criminal rules related to bioterrorism should be such that the relevant rules consider all international community members to be justified and beneficial in countering bioterrorism, pursuing the non-execution of terrorist acts and their examples [21].

In addition to dealing with armed terrorist battles, some institutions' function is to include biological warfare in their rules. For example, the International Criminal Court could expand and deepen its activities to combat bioterrorist crimes. Just as the jurisdiction of the Court grants him such permission. The jurisdiction of this Court is in cases such as genocide, war crimes, crimes against the aggressor [22].

CONCLUSION

Since ancient times, bioterrorism has been used by groups and individuals seeking to achieve their goals through unconventional warfare methods. This method has always been against the rules and principles of war, and in modern times, various legal mechanisms have been designed to deal with it. Simultaneously, with scientific and technological advances, the methods and dimensions of bioterrorism have become more intense and profound. Scientific and biological advances have led to its misuse for terrorist and violent purposes, which has shifted terror, fear and intimidation from the

practical and objective to the covert and invisible.

Therefore, one of the main difficulties of bioterrorism is its anonymity and rapid spread among individuals, making it challenging to adopt a solution to deal with it. Bioterrorism, its effects and consequences are such that it requires the application of strict domestic and international legal and criminal rules, and that it requires the involvement of the general public in the face of these unknown dangers. In comparison, armed terrorism takes place in specific places and with specific goals, which, of course, requires a military confrontation to neutralize it. However, bioterrorism has such a property that we need to use military and civilian methods to neutralize and prevent it. For this reason, cooperation and alignment of military and civilian approaches are essential and necessary.

In addition, in the legal and criminal spheres, we need to apply appropriate legal rules to strengthen the international community, international and peace advocacy bodies, including the UN Security Council, human rights bodies, the Red Cross, non-governmental organizations, as well as military approaches. They are armed against bioterrorism. International legal institutions, including the International Court of Justice, need to reorganize their rules based on the identification and response to bioterrorist incidents, and by supporting the establishment of international institutions, they must closely monitor suspicious scientific activities and weapons to Avoid turning simple and small

bioterrorist incidents into large and epidemic ones. Monitoring scientific and technological activities is important because building a global disease against civilians, using poisons and chemicals in armed conflict, etc. can cause enormous damage to the international community so that the effects And its consequences can affect a large part of the world's population.

Also, educating people and informing them to identify bioterrorist signs and symptoms as soon as possible is another measure that can prevent the spread or formation of bioterrorist acts. Today's world is deeply intertwined politically, economically, culturally and socially, and negligence in the face of such shameful acts can create a global catastrophe. Also, if an act of bioterrorism becomes epidemic, its economic and social effects will indirectly lead to serial and widespread violence worldwide. Adopting severe punishments and aligning the countries of the world with the country or government that uses bioterrorist approaches in open and armed wars, in turn, can create a legal solution to counter bioterrorist acts. For stability and authority, strict laws in this field should be enacted based on social realities and observance of legal and intellectual principles and foundations of different societies, and convergence and conformity should be created in a central point of the world.

Finally, the challenges of restrictive and inflexible laws should be highlighted, and scientific abuses to strengthen bioterrorism should be prevented by emphasizing the

advancement of guidelines that allow for scientific advancement.

ETHICAL CONSIDERATION

Authenticity of the texts, honesty and fidelity has been observed.

AUTHOR CONTRIBUTIONS

Planning and writing of the manuscript was done solely by the author.

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CONFLICT OF INTEREST

No conflict of interest was reported by the author.

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