



## Criminological Approach to Bioterrorism from the Perspective of International Criminal Law

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### ABSTRACT

The use of microbial weapons has been observed either in a modern way by countries or hostile groups. Bioterrorism is the misuse of microbial agents or their products, or in more comprehensive terms, the use of biological agents to intimidate or kill humans and destroy livestock or plants. Although the thoughts and sometimes actions of bioterrorists have existed for a long time on a limited level, recently it has been raised on a wide level in medical and health circles. Today, the new approaches to terrorism are in the field of environment, bioterrorism in the economic field, bioterrorism in the field of medicine, food chain security, etc. countries. Bioterrorism and the potential for mass death is one of the new and important concepts that are increasingly discussed in scientific circles these days. Considering the potential dangers of war and biological sabotage operations, basic planning to deal with this phenomenon in urban, local and national dimensions is very important. The development of terrorism due to the governments that help this type of terrorist activity has expanded a lot in recent years. Especially, the activity of countries that support terrorism in research and development, in science such as microbiology, biotechnology and chemistry, has created new types of terrorist activities such as bioterrorism and chemo terrorism.

**Keywords:** bioterrorism, International Criminal Court, microbial weapons, microbial agents

### Introduction

Establishing stable security is one of the duties of governments. This matter has various aspects, including economic, social, cultural, political, etc.. Still, in the sense of not being attacked, national security is so important that whenever this word is used without any other conditions, it will appear in this special way. Terrorism and terrorist attacks are among the things that threaten stable security. Therefore, among terrorist attacks, the effects of the attacks are not the same. Although all these attacks have an impact on the mental state of citizens regarding security, the important issue is that some terrorist attacks will have a greater impact on security than other attacks due to their general nature and the fact that every person considers himself exposed to these attacks. Among the different types of terrorism, bioterrorism attacks are more dangerous than other attacks and harm security. The use of infectious agents as biological weapons for military and bioterrorism purposes caused more than thirty new diseases to appear or be eradicated despite the advances in medical science and the emergence of vaccines and healthcare at the end of the 20th century. appeared again. The growing trend of exploitation of these biological agents caused that today when facing each other, countries use biological weapons that can cause a large amount of damage. Therefore, the effects of this type of terrorism affect not only national security but also health security. It affects the life of a nation over time. In the 20th century, many cases of biological attacks occurred. According to the documents, America used this method in the Vietnam attack; In 1932, Japan used the agents of cholera, plague, and Shikila against the Chinese people; And in 1995, sarin gas was used in the attack on the Japanese subway [1]. The Soviet Union also used biological weapons extensively in World War II. The necessity of predicting new measures to deal with bioterrorism, in particular, is the non-responsiveness of its traditional concepts to deal with new destructive phenomena; Because of the emergence of new criminal phenomena with new elements and possibilities, including the emergence of crimes such as bioterrorism, has made traditional [law](#) unable to fight successfully with these emerging phenomena. On the other hand, the discussion of legal and judicial issues related to bioterrorist actions has two aspects or national and international dimensions. Therefore, the Islamic Republic of Iran is internationally required to provide strategies in the form of criminal [laws](#) to deal with this particular type of terrorism. Therefore, it is necessary to predict the strategies to deal with this particular type of terrorism by identifying it first and then distinguishing it from similar concepts. It is after this identification that it will be possible to predict or analyze the measures of legal strategies at the international and domestic levels. The importance of this issue and the damage it caused to global and regional security caused serious legal efforts at the international and domestic levels to confront and prevent these actions in the 20th century and the beginning of the 21st century. Because the terror resulting from bioterrorism crosses borders and creates global fear, dealing with it cannot be confined to political borders. Based on this, in a division, bioterrorism is divided into domestic and international. Domestic bioterrorism is a phenomenon that occurs without the intervention of foreign elements and only in the case of a country. In contrast, international bioterrorism has at least one international element or international consequences. Bioterrorism is defined internationally when the nationality of the victims is different from the nationality of the

terrorists, or the bioterrorist act or its detection is outside the borders and territory of the target country. Accordingly, dealing with this phenomenon has been manifested both in international documents and in domestic laws. At the international level, in particular, from the 1920s, attention was paid to biological weapons that cause harm, and from the same decade, strategies were devised to deal with them. In this regard, three important documents have been approved so far, each of which has been established in order to complete and eliminate the shortcomings of the previous document and considering the progress of this new type of weapon and attack. The first of these documents is the Geneva Protocol of 1935 supplementing the Hague Convention of 1907. This document clearly states that the members agree that the use of rheological bucket methods for war is prohibited. This document was approved following the ratification of the Hague Convention, in which only the use of poison and poisonous weapons was prohibited. This document extended the ban of the convention to bacterial weapons [2]. About five decades after this protocol, another convention was established to fix its defects. The Convention on the Prohibition of Development, Production and Stockpiling of Biological and Toxic Bacteriological Weapons and the Destruction of the aforementioned weapons was approved in 1972 and Iran joined it in 1353. With the approval of this convention, firstly, the development, production and storage of microbiological agents, as well as their use, were prohibited; Second, biological factors are also mentioned along with microbial factors in paragraph 1 of Article 1 to cover any type of [biological factor](#) and microorganism, and thirdly, the aforementioned limitation is not related to wartime but is general and will cover all times. Based on this, all the flaws in the previous protocol were fixed in this way. The third document regarding bacterial and biological substances was Security Council Resolution No. 1590, which was approved in 2006. In the preamble of this resolution, the right to peaceful use of biological materials is recognized and it is emphasized that despite this right, this should not be used as a cover for illegal enrichment. Therefore, the reason for the approval of this resolution, as stated in its introduction, was the Security Council's concern about terrorism and the acquisition, development, smuggling, and use of biological, atomic, and chemical weapons by non-state actors. In this resolution, physical and legal measures to prevent non-state actors from studying, producing, possessing, transferring and using have been taken into consideration. Therefore, according to what has been said and also the need to pay attention to the issue of the criminological approach of bioterrorism from the point of view of international criminal law, in this research we are looking for an answer to the question of what are the new approaches of international criminal law by bioterrorism and the legal prevention methods? Unfortunately, with the advancement of [technology](#), weapons of mass destruction have also developed, which have unpleasant effects on humans and their environment. Bioterrorist weapons are not limited to the mass killing of humans, but their effects are on animals, plants, aquatic organisms, and the ecosystem. Most of these weapons contain substances that cause genocide and infectious and hereditary diseases, and people infected with the substances of these weapons live with chronic and incurable diseases for many years. The present study has provided the main necessity of dealing with bioterrorism and the necessity of global cooperation and how to deal with it now as a global agenda, providing a suitable ground for bilateral cooperation between countries and the need to pay attention to providing security and appropriate and timely measures in this field and the countries It removed from the created pitfalls and brought it to a safe and secure valley. Considering that the present subject has not been researched in the form of research and detail in international law in general and under the name of a bioterrorist, it became an incentive to conduct research based on the criminological approach. Bioterrorism should be done from the perspective of international criminal law.

The objectives of the research can be stated as follows:

Explaining the security threats of bioterrorism and ways to deal with them and crisis management, the principles of combating bioterrorism and the necessity of global cooperation.

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## Research Method

The most important and main method used and cited in the collection of information for this research is in the form of a library from university libraries and reference books and various jurisprudential sources and legal books in the form of definition, description, reasoning and inference. In this research, phishing and data banks, [computer networks](#) and software programs have been used as appropriate tools to collect information.

In the first stage, the information is collected, in the second stage, the information is classified and organized, and in the third stage, the viewpoints and analysis of the supporter's and opponents' theories are examined, and finally, the final summary and compilation are presented, and then, the information is argued.

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## Research Results

Because the terror resulting from bioterrorism crosses borders and creates global fear, dealing with it cannot be confined to political borders. Based on this, in a division, bioterrorism is divided into domestic and international. Domestic bioterrorism is a phenomenon that occurs without the intervention of foreign elements and only in the case of a country. In contrast, international bioterrorism has at least one international element or non-international consequences. Bioterrorism is defined internationally when the nationality of the victims is different from the nationality of the terrorists, or the bioterrorist act or its detection is outside the borders and territory of the target country. Accordingly, dealing with this phenomenon has been manifested both in international documents and in domestic laws. At the international level, in particular, from the 1920s, attention to biological weapons that cause harm began, and from the same decade, strategies were devised to deal with it. In this regard, three important documents have been approved so far, each of which has been enacted to complete and eliminate the shortcomings of the previous document and consider the progress of this new type of weapon and attack. The first of these documents is the Geneva Protocol of 1925 supplementing the Hague Convention of 1907. This document clearly states that the members agree that the use of bacteriological methods for warfare is prohibited. This document was approved following the ratification of the Hague Convention, in which only the use of poison and poisonous weapons was prohibited. This document extended the Convention's ban on

bacterial weapons. However, this document was flawed from various perspectives. First, he only prohibited the use of these weapons and not their production and accumulation. Second, the aforementioned ban was only applicable to governments and that too during wartime. Therefore, the aforementioned prohibition did not include peacetime. The third problem was that this document only included bacterial methods and did not include non-bacterial biological methods such as the use of viruses. About five decades after this protocol, another convention was established to fix its defects. The Convention on the Prohibition of Development, Production and Stockpiling of Biological and Toxic Bacteriological Weapons and the Destruction of the aforementioned weapons was approved in 1972 and Iran joined it in 1975. According to Article 1 of this Convention, "Each of the countries that are parties to this Convention undertakes never, under any circumstances, to complete, develop, produce, store, or in any way acquire and maintain the following materials: 1. Microbial agents or other biological agents or poisonous substances of any origin or in any way or in any kind or quantity produced, other than those intended for the prevention or protection against diseases or other peaceful purposes; 2. Weapons and equipment or means of transportation that are used to use such agents or toxic substances for hostile purposes with armed confrontations. With the approval of this convention, firstly, the development, production and storage of microbial and biological agents, as well as their use, were prohibited; Second, biological factors are also mentioned along with microbial factors in paragraph 1 of article 1 to cover any type of biological factor and microorganism, and thirdly, the aforementioned restriction is not related to wartime and is general and will cover all times. Based on this, all the flaws in the previous protocol were fixed in this way. However, the important issue after the ratification of this convention was the materials that had dual functionality for them. In such a way that there are materials that are bacterial or biological materials, but their production and reproduction may be for peaceful purposes or weapons production. In these cases, the aforementioned convention has not provided a solution. In other words, although this convention took great steps to ban the production and proliferation of these materials, it failed to achieve its goal in practice for two reasons; First, the concept of biological and microbial substances is not clear in the convention, and second, most of the biological substances produced have dual functionality and there is practically no possibility of absolute prohibition in many substances. Based on this, this positive approach could only promote rights in theory and failed to some extent in practice. Therefore, the very important point of the above convention is the absolute prohibition of expression. According to Article 1, "under no circumstances" should any person or organization benefit from these materials. In other words, the ban on the production, reproduction, accumulation and use of biological and bacterial materials follows from the absolute ban and no government or institution can use these weapons by citing extraordinary situations such as the state of necessity or legitimate defense or war. The third document regarding bacterial and biological substances was Security Council Resolution No. 1540, which was approved in 2004. In the introduction of this resolution, the right to the peaceful use of biological materials is recognized and it is emphasized that despite this right, this should not be used as a cover for illegal enrichment. Therefore, the reason for the approval of this resolution, as stated in its introduction, was the Security Council's concern about terrorism and the acquisition, development, smuggling and use of biological, atomic and chemical weapons by non-state actors. In this resolution, physical and legal measures to prevent non-governmental actors from studying, producing, possessing, transferring and using have been taken into consideration.

According to paragraph 1 of this resolution, all governments should provide any form of support to non-state actors that limit their efforts to develop, study, produce, possess, transfer, or use atomic, chemical or biological weapons. Also, according to paragraph 2 of this resolution, all countries must adopt appropriate and effective laws to prohibit non-state actors from producing, acquiring, possessing, developing, transferring, transferring or using the above weapons. Because the above resolution was compiled based on the seventh chapter of the charter, it is binding for all countries. Therefore, all member and non-member states are required to comply with the items mentioned in the resolution and to enact appropriate measures and laws.

**United Nations General Assembly's approach to bioterrorism:** The General Assembly unanimously condemned all forms of terrorism in Resolution No. 40/61 [3], but in this condemnation, it referred to the people's right to independence in all colonial lands and their right to freedom from racist regimes and foreign domination. He has declared legitimate the efforts of the liberation movements that are fighting based on the goals of the United Nations Charter and the Declaration of the Principles of International Law regarding friendly relations and cooperation among nations. According to this resolution, the difference between terrorist acts and the nation's right-wing struggles can be seen [4].

In the second part of Declaration No. 1514 in 1960, the Assembly noted that any attempt to partially or completely disintegrate the national unity and territorial integrity of the country is incompatible with the goals and principles of the United Nations Charter [5].

**The United Nations Security Council's approach to bioterrorism:** The Security Council, based on Chapter Six (Peaceful Resolution of Disputes) and Chapter Seven (Forcible Method), adopts its decisions in the form of resolutions. The issue of terrorism and dealing with it through international forums, due to the sensitivities that arose after the events of September 11th, became especially important, and the Security Council issued its first resolutions on the issue of dealing with terrorism in the late 1980s. However, after September 11, 2001, the number of resolutions of this council has increased significantly, which is more than 35 resolutions.

One of the most important cases is Resolution 1368 issued on September 12, 2001, condemning the terrorist attacks of September 11, which condemned any financing of terrorist acts and their support. Among other important resolutions is the resolution 1373, which was issued on September 28, 2001, and it is not much different from the resolution 1368. This resolution deems it necessary for the countries to join the international agreement to fight terrorism and asks all the member countries to prevent any kind of financial support to terrorist acts and immediately freeze the funds and financial assets of people who commit terrorist acts. have been or have participated in it, take action. Also, to declare illegal any pre-determined actions to prepare or collect money within their territories or by their nationals, which are carried out to provide financial support to terrorist acts [6].

**Bioterrorism and human rights:** due to military violence as well as guerilla wars at the international level, the issue of such actions was placed on the agenda of international organizations, and the International Committee of the Red Cross, to update humanitarian rights, held a diplomatic conference. It was held from 1974 to 1977, and one of its achievements is the preparation and regulation of two additional protocols to the GEO Conventions. Countries also usually suppress terrorist groups within their national borders by resorting to force and dealing with perpetrators of terrorism by their

national criminal laws. Governments never intervened militarily to fight terrorism in other countries, even if they encountered terrorism. Governments never intervened militarily to fight terrorism in other countries, even if terrorism originated from the territory of those countries. UNESCO has also made great efforts to spread and expand human rights, the first international congress on human rights education was held by UNESCO in Vienna in 1978, so that the concepts of human rights become social realities, and in this regard, the second congress in the year In 1987 and also in March 1993, the third congress of human rights education was held in Montreal, Canada, and it was in this conference that the necessity of human rights education was approved by the representatives of 171 countries.

**The Geneva Protocol and Convention on Disarmament of Microbial Weapons:** Article 1, which is the most important article of the convention and the main focus of its goals, states that: "The member countries of this convention commit to never, under any circumstances, develop, produce, stockpile or acquiring from any other method microbial agents or their toxins with any origin and production method and any type and quantity that does not have justification for prevention, protection or other peaceful purposes in wars or hostile purposes, as well as weapons, equipment and other Do not use projectile devices that are designed for the use of such agents." This article of the convention alone is an important deterrent and commitment factor for the member countries in the direction of controlling and countering bioterrorism. They undertake the proper guarantee of drafting laws and regulations to combat this. According to the above-mentioned convention, the member countries undertake to completely destroy their biological weapons, if they exist, at most 9 months after the implementation of the convention, or to convert them into products that are used for peaceful purposes. It can be said that Article 10 of this convention after Article 1 is one of the most important articles of this convention, especially for developing countries that intend to develop science and technology for peaceful purposes. According to the provisions of the above article, the member countries undertake to provide the maximum possible exchange of devices, materials and scientific and technical information for the use of bacteriological agents and microbial toxins for peaceful purposes, and they have the right to participate in this regard. The members of this convention should participate and cooperate in this direction, also for the prevention of diseases or other peaceful purposes alone or together with other countries or [international organizations](#). On the other hand, this convention should be implemented in a way that does not create an obstacle in the path of economic or technical development of the member states of the convention or for international cooperation in the field of peaceful biological activities and toxins for peaceful purposes according to the provisions of this convention.

It can be said that this convention pursues two goals, firstly preventing and preventing the use of microbial agents and their toxins for inhuman and warlike purposes and bioterrorism in general. Second, facilitating and strengthening the use of such factors and relevant technical and technological knowledge to serve the human society and peaceful goals, which the first goal is manifested in the implementation of Article 1 and some other articles that follow it, and the second goal, which includes the most The use of biological agents is provided in the implementation of Article 10.

**Jurisdiction of the International Criminal Court in dealing with the crime of bioterrorism:** This court was established as the first permanent international court in 1998 to deal with international crimes committed. In 1996, the International Law Commission completed the establishment plan of the International Criminal Court and sent it to the General Assembly. The assembly also decided to establish a two-committee to investigate the issue, which worked from 1995 to 1998. Finally, the Statute of the International Criminal Court was approved by representatives of 120 governments in the Rome Conference on June 15, 1998, and has been in force since July 1, 2002. The jurisdiction of the court includes four crimes, genocide, war crimes, crimes against humanity and aggression.[7]

The conclusion that terrorism can be a crime against humanity does not weaken the discussion and debate about the lack of a legal definition of terrorism as an inherently independent crime, but only the conclusion that specific manifestations of terrorism can potentially be considered crimes against humanity. Accordingly, according to international law, it cannot be classified as an inherently independent crime in the category of crimes against humanity. The existence of various types of terrorist acts that the international community has witnessed in recent years, including bioterrorism, has been unimaginable even at the end of this decade. The world is changing and evolving, and therefore, it is possible to identify an increasing number of crimes that cause concern to the [international community](#) as serious crimes and threaten peace and security, among which there is a new type of terrorism. As long as the manifestations of terrorism in question meet the conditions of the existence of a specific crime that is considered a crime against humanity and the elements of war crimes are crimes against humanity, the classification of these manifestations as crimes against humanity is unimpeded. Therefore, a new crime or law is not created, but the classification of specific manifestations of terrorism as crimes against humanity is a wide adaptation of some legal components of criminal sentences to new social conditions.[8]

**Iran's criminal policy against bioterrorism:** Criminal policy, by definition, is coercive and non-coercive measures centered on the state, which are adopted by official or unofficial institutions to deal with the criminal phenomenon. Therefore, from preventive measures to criminal response will be included in this area. According to this approach, the current paragraph examines and analyzes the solutions to deal with bioterrorism in the field of legislation in Iran. Therefore, in two paragraphs, he will first examine the laws that have a preventive aspect and then deal with criminal cases.

**Iran's criminal policy against bioterrorism:** Iran's criminal laws have addressed the issue of bioterrorism from two aspects. On the one hand, they have criminalized the preparations for this type of terrorism, and on the other hand, they have addressed the behavior of bioterrorism. Among the laws that fall into the first category, we can refer to the "Law on Punishment of Arms and Ammunition and Owners of Illegal Arms and Ammunition" approved on 6/7/1390 and the "Law on Combating Terrorism Financing" approved on 11/13/1394. The second line can be placed in Article 286 of the Islamic Penal Code. The first category of laws, which can be called obstruction crimes, are crimes that provide means or resources for bioterrorism. According to Article 1 of the Law on Punishment of Weapons and Ammunition and Owners of Illegal Weapons and Ammunition, "Smuggling of weapons, ammunition, items and controlled substances means importing them into the country or taking them out of the country illegally" and Article 3 of this law of items and He defined controlled substances as "all types of incendiary, explosive, military and civilian, chemical, radioactive, microbial, anesthetizing, numbing and tear gasses and shockers and military and law enforcement equipment."

Following this article, two articles 11 and 12 of this law set penalties for smuggling, manufacturing and assembling (Article 11) and buying, keeping, transporting, distributing or selling or any transaction (Article 12) of microbial substances, respectively. Therefore, these materials have sought to make the ways of obtaining them punishable before the occurrence of bioterrorism in order to prevent the occurrence of these crimes. The second regulations that try to prevent this phenomenon with the use of punishment is the Law on Combating the Financing of Terrorism approved on 11/13/2014. Article 1 of this law (amended on 4/31/1397) considers the financing of terrorist individuals or terrorist organizations that commit one of the acts mentioned in that article as terrorism financing and considers it punishable according to Article 2 of that law. In paragraphs 3 and 5 of this article, production, possession, acquisition, transfer, transportation, storage, development or illegal accumulation, theft, fraudulent acquisition and smuggling, and the use or threat of use of weapons and microbial substances have been introduced as terrorist acts. According to Article 1 of this law (amended on 13/4/2013), the financiers of these actions are subject to the punishment of corruption in the land or otherwise, depending on the case.

Article 2 of the Anti-Terrorism Financing Law has, in some cases, considered these people to be warring and corrupt in the land, and has made the application of Ta'zir punishment conditional on not proving that they are corrupt or warring. This article has a problem in that it has stated that "the financing of terrorism, if it is considered as war or corruption in the land, the perpetrator will be sentenced to the punishment" and it is not clear under what conditions exactly a person can be considered not warring and corrupt, but He considered it as a belligerent and corrupter.

Article 688 of the [Islamic Penal Code](#) (Book 5) Any action that threatens public health, such as polluting drinking water or distributing contaminated drinking water, unsanitary disposal of human and animal excreta and waste materials, pouring poisonous substances into rivers, littering the streets, and killing Permissible livestock is considered a crime. However, this regulation is not enough to deal with bioterrorism; Because not only his general expressions cannot declare the legislator's will to deal with this dangerous phenomenon, but also his punishment is imprisonment until death (if he is not subject to a heavier punishment) which is not enough. It seems that being aware of this flaw, the Islamic Republic of Iran passed the Islamic Penal Code in 2012, Article 286 of which criminalizes the behavior of bioterrorism. Article 286 of the Civil Code mentions three factors: toxic substances, microbial substances and dangerous substances. This is by international documents in which the three agents of poison, bacteria and biological agents such as microorganisms and microbial agents are separated from each other. The other behaviour mentioned in Article 286 of Q.M.A. It is the assistant in the distribution of toxic, microbial and dangerous substances. This wording of the article is also not without ambiguity. Because the main system of deputyship in Iran is borrowed, and as long as the steward or partners have not committed a crime or at least started to commit it, the person cannot be punished unless it includes deputyship as a special crime, the question arises whether the deputyship of Article 286 Q.M.A. is borrowed or vice as a special crime? The effect of which of these cases is to be followed is that if the vice is borrowed, as long as toxic, microbial and biological substances are not spread, the person is not punishable; However, if the deputy is an independent crime, the deputy is punishable even if the mentioned materials are not distributed. To answer this question, it is not possible to use the context of the mentioned article; Because the maximum use of the words of the article gives the result that the assistant in the distribution of the mentioned materials is considered a corrupter of the earth. However, it should be believed that because there is ambiguity in this regard, the article should be interpreted by referring to the principles, and the principle in deputyship in Iranian law is borrowed deputyship. Therefore, as long as the toxic, microbial and biological materials are not spread, the deputy cannot be punished.

The legislator has foreseen two things for the realization of the crime in the result part: first, disruption of order or damage or insecurity, and second, their severity or majorness depending on the case, and both of these restrictions are redundant from a rational point of view and from a legal point of view. It is redundant from a legal point of view; Because the use of biological, toxic and microbial substances is prohibited in the international documents to which Iran has joined. In terms of the psychological element, this crime is binding and requires specific malice. This matter is also received from the note of the article as an obligation.

To analyze this article, it is necessary to read Article 144 of Q.M.A. combined with this article and believe that this crime can be committed with direct or secondary intent. In this case, he is punishable due to secondary or indirect intention.

**Passive defense and its role as a way of countering the threats of bioterrorism:** From the lexical point of view, the word "defense" consists of two components: "pad" meaning "against, opposing, following" and "offend" meaning "war, conflict, fight and Enmity" has been taken. [9]

Active defense means "maintaining and developing military power and having a stronger position against possible attackers and responding to enemy fire with stronger and more crushing fire" [10].

Passive defense refers to all actions and measures that reduce vulnerability, losses, and damages and increase stability without using weapons. Non-active defense means defense against threats without using weapons and military equipment. In paragraph one of the general policies of the system, the concept of passive defense is defined as follows: "Non-active defense is: a set of non-armed measures that increase deterrence, reduce vulnerability, continue necessary activities, promote national stability and facilitate crisis management against threats and the military actions of the enemy." [11]

It can be said that passive defense is complementary to active defense; That is, passive defense + active defense = defense [11].

Passive defense measures play an effective and inevitable role in each of the components of national security (preserving people's lives, preserving territorial integrity, preserving the economic and political system, and preserving the independence and sovereignty of the country). The published information shows that after the September 11 incident and also the distribution of anthrax envelopes in the United States, this country has spent more than 60 billion dollars in the last ten years to strengthen the defense against biological threats, so that all military research centers, defense, universities and [Research](#) centers should be less vulnerable to these threats by implementing passive defense programs.

Fortunately, in our country, especially in the last decade, this issue has been taken into consideration and in the law of the fourth development program, one of the main axes of the issue of national security, the discussion of passive defense has been raised.

Carrying out passive defense measures to deal with hostile attacks and reduce the damage caused by biological attacks is a fundamental issue, the scope of which is all critical and sensitive military and civilian infrastructures and centres, economic, political, and communication such as; Including ports and airports, key product infrastructures such as large industrial complexes, factories, etc., command and control centres and the population of the country to the extent that maintaining national security is significantly dependent on comprehensive planning and organization in the vital issue of defense. It is inactive. On the other hand, it should be acknowledged that the implementation of passive defense has prevented military actions in many cases and this, in turn, causes widespread immunity in the society. To deal with crises caused by bioterrorist threats, many government agencies, especially the Ministry of Health and other ministries related to providing health, food and water to the community, as well as security centres, have certain responsibilities. Undoubtedly, without the effective cooperation of these institutions, it will not be possible to deal decisively with possible bioterrorist threats. Therefore, passive defense while paying attention to specialized measures to deal with bioterrorist agents including; Detection and measurement, removal and elimination of pollution and prevention and treatment of the country's vulnerability to an intentional or natural epidemic caused by biological pathogens will be reduced and by implementing some measures and the success of the bioterrorist attack in the society will be minimized.

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## Conclusion

The results obtained from this thesis can be summarized as follows:

1. Security threats Bioterrorism is something that has forced all governments to react in the 21st century. Due to the simplicity of its use, the extent of its effects, and its dangerousness, bioterrorism has drawn special global attention and has coordinated the global community to deal with these threats. Since bioterrorism involves the widespread use of toxic, biological and microbial agents to cause fear or harm to individuals, it has caused the international community and Iran to pay special attention to this matter and prepare political and legal strategies to deal with it. These legal strategies at the international level were specifically considered in three documents. The 1922 Geneva Protocol added to the 1907 Hague Convention, the 1972 Convention, and Security Council Resolution 1504 approved in 2004 required all countries to take physical and legal measures to prevent the access, production, transfer and transfer of toxic, bacterial and biological substances to non-state groups.
2. Nowadays, bioterrorist agents have been increasingly noticed by terrorists affiliated and not affiliated with the governments to physically remove, disable or create psychological operations in society and to destroy the social system of other countries. Bioterrorist events after September 11th showed that terrorists and agents of Espionage by threatening to use bioterrorist agents in different societies, provide the ground for terror in the people, or by benefiting from deadly or incapacitating biological agents, can harm the health of various groups of people, including high-ranking political and military figures of the countries. to threaten Some bioterrorist incidents discovered during the last decade, such as the discovery of letters contaminated with various poisons and dangerous pathogens in Iran, also showed that bioterrorism has also targeted the national security of the country. It should be noted that the diagnosis of epidemics caused by natural or deliberate disease outbreaks caused by a bioterrorist attack, especially in the case that the pathogen is indigenous, is not possible in many cases. The difficulty of proving an epidemic or a disease caused by a terrorist attack has caused microbial and biological attacks to be considered one of the most dangerous threats to the security and health of a country. Due to the concealment of the possible invasion and the difficulty of detecting the occurrence of bioterrorist operations, the terrorists' chance to use them is more and more frightening, and definitely, basic measures must be foreseen and implemented to deal with them.
3. Despite having high military and security capabilities, most of the countries in the world pay special attention to passive defense due to the increase in national deterrence power and popular resistance against weapons of mass destruction, including biological weapons. The published information indicates that after the September 11 incident and also the distribution of anthrax envelopes in the United States, this country has spent more than 60 billion dollars in the last ten years to strengthen the defense against biological threats, so that all military, defense centers, universities and research centers to be less vulnerable to these threats by implementing passive defense programs. Biological science experts also believe that biological passive defense is one of the most effective methods of dealing with bioterrorism, which can prevent the emergence of health, social, political and economic crises and or reduce the harmful effects caused by it. This defense does not require the use of military equipment and tools and through actions such as; Benefiting from tools, conditions and factors such as building with suitable architecture from the aspect of defense and security, standard doors and openings, ventilation system equipped with microbial decontamination filters, protection, benefiting from advanced equipment and devices to detect, measure and identify decontamination materials Biological agents and the planned use of biological defense specialists and quick access to reference laboratories for the diagnosis of pathogenic agents protect the target community against bioterrorist operations. Passive defense measures play an effective and inevitable role in each of the components of national security (preserving people's lives, maintaining territorial integrity, maintaining the economic and political system, maintaining the independence and sovereignty of the country) and as a result of the actions and functions of this defense by helping It takes steps to protect the health of the people as well as the high-ranking officials of the country, especially against bioterrorist threats, without doubt, to ensure at least one of the important components of national security (protecting people's lives). In summary, bioterrorism as a threat has targeted the health and safety of people in many countries, and with the advancement of science and technology, its dimensions are becoming wider day by day and the dangers caused by it are becoming wider. Any country that has a proper strategy and action plan to deal with this threat will be less vulnerable to it.
4. The phenomenon of bioterrorism has been defined in different ways. Bioterrorism includes the deliberate release of biological agents in their natural form or a form manipulated by humans. But according to a comprehensive definition, it can be acknowledged that bioterrorism is the misuse of microbial agents or biological products and agents, the release of biological or toxic agents to kill or harm humans, animals, and plants with prior intent and intention to terrorize, threaten, and coerce. Making a government or a group of people perform an action or fulfil political or social demands, which

can be caused by factors such as smallpox, anthrax, plague, botulism, tularemia, filoviruses, Ebola hemorrhagic fever, Marburg hemorrhagic fever, arenaviruses, Lassa fever Argentine hemorrhagic fever and... Hazardous biological substances target water, air, food, soil, humans and animals. Also, bioterrorism, which today is considered one of the most powerful weapons in the world, has important features, such as the fact that the agent of bioterrorism is alive and therefore dynamic, and for this reason, it spreads quickly, and sometimes it is very difficult to detect an attack. And the means of using bioterrorism is also unclear. On the other hand, the production and dissemination of these factors is very easy and fast and at the same time low-cost, but the bad results may remain for a long time, so the damage caused is very heavy and sometimes irreparable. The use of biological agents has led.

5. Bioterrorism means the misuse of biological agents (including bacteria, viruses, fungi, and parasites) or poisons derived from them to create fear and terror, kill or incapacitate the party involved in the war, and destroy livestock or plants. It is used for collective or individual terror by governments or individuals. that the use and biological attack on the physical, psychological, economic, environmental and health effects with anti-human purposes and creating public terror is a criminal act according to the laws; It is forbidden in jurisprudence to use it even during war. According to Islamic laws and jurisprudence, the observance of human rights and the right to life and moral values are important, and the use of weapons of mass destruction in any form and targeting innocent people and civilians is haram and its use is not permissible.

6. The world today is facing a more insecure and threatening environment compared to half a century ago, this has various reasons, perhaps the most important reason is that governments are no longer the only powerful actors in the political arena and non-governmental actors have also appeared in various arenas. Terrorist groups are among the non-governmental and unofficial actors who carry out numerous terrorist acts in the world by obtaining money, knowledge and weapons. Although the support of some governments to terrorist groups cannot be denied. In the last two decades, many terrorist attacks have endangered the security of citizens. Due to the attractiveness of biological materials for terrorists, bioterrorism is more dangerous than some other types of terrorism for threatening the lives of citizens and ordinary people. Because of these characteristics, biological agents have become an attractive temptation for terrorists to threaten the lives of citizens in the form of terrorist attacks on urban infrastructures in the water, food, public services, etc. Therefore, to prevent such terrorist acts, it is necessary to carry out detailed studies and research while knowing the types of methods and tactics of terrorists in terrorist attacks. This research tried to briefly explain the effects and consequences of bioterrorist attacks on citizens' health. In a country like Iran, which is exposed to all kinds of terrorist attacks, it is very necessary to study the effects of bioterrorism and prevent such attacks and prepare against them, as well as develop a security attachment for them.

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