

BIO-TERRORISM – A BRIEF LEGISLATIVE SCRUTINY

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“Wars can no longer contain the population, so biological terrorism will become the weapon of choice.” -- David Icke

INTRODUCTION

Terrorism, by all means, challenges the stability of societies and the peace of mind of the people living in those societies. It is an age-old phenomenon that has evolved into an international network and threatens international peace, democracy, and development. In the modern era, the impact of terrorism is not limited to a particular region. With the advent of technology, access to resources and information, the beginning of the 21st century can be treated as an era of globalized terrorism.³ The new terrorism of today is characterized by the threat of weapons of mass destruction. That is evident in the casualties and destruction that happened in the terrorist attacks all across the globe in the past few years. The advent of technology, biotechnology, microbiology, molecular chemistry, and genetic engineering has opened new vistas for mankind. But, on the other side, it has some adverse effects in the form of manufacture and proliferation of biological and chemical weapons. Modern technology, innovative sources of funding, and world network connections have given terrorists extraordinary capabilities that were demonstrated in different ways.⁴ Consequently, countries are forced to spend the kind of intellectual, physical, and other resources in monitoring and assessing the activities of the various terrorist organizations around the world. The harm caused by the international terrorist movement has been described as 'transnational harm' that poses a serious challenge to national and international security.⁵ Terrorist groups have generally sought to achieve their objectives with small arms and conventional explosives. This tendency may be changing, however, with the emergence of more deadly forms of terrorist activities.

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³ Gus Martin, *Terrorism and Homeland Security*3 (2011).

⁴ Shashi Shukla, *Emerging New Trends Of Terrorism: Challenges Before the United Nations* The Indian Journal of Political Science September1,2020,9.30PM. <http://www.jstor.com/stable/41856202>.

⁵*Id.*

Biological terrorism is rampant than before and more threatening than any other explosives or chemicals. Preventing or countering bio-terrorism will be extremely difficult. The process for creating biological weapons is now available on the internet and anyone with modest finances and basic training in biology and engineering could develop an effective weapon at little cost.⁶ The terrorist groups vowed to destruct, might deliberately produce and disseminate disease agents that are contagious in humans, such as pneumonic plague bacteria or various types of haemorrhagic fever viruses, to trigger widespread epidemics that would undermine social structures.⁷ The outbreak of corona virus in 2020 has caused unprecedented consequences all across the globe. Still, discussions and deliberations are going on relating to the source and nature of viruses leading to the suspicion that it is a bio weapon developed by China.

MEANING AND DEFINITION OF BIO-TERRORISM

The term 'terrorism' doesn't have a widely accepted definition. However, what is commonly accepted is its efficacy to penetrate terror and thus to pressurize the people. Bio weapons and chemical weapons are often used together. But the Chemical warfare agents are manmade poisons, whereas biological warfare agents are microorganisms and naturally occurring toxins that cause illness or death in people, livestock, and crops.⁸ Biological weapons are so deadly that it can destruct all living organisms.⁹ Biological warfare agents are the type of organism or toxin used in a weapons system, which is dangerous to humans, plants and animals. Normally, there are five different categories of biological agents that could be used in warfare or terrorism. These bio-agents include¹⁰ bacteria, rickettsia, viruses, fungi, toxins etc.

Bioterrorism is the dissemination of biological agents¹¹ into the population by an individual or group intended to cause severe illness injury or death. As mentioned above, the disease-causing organisms like bacteria, viruses, fungi, or rickettsia or poisons or toxins can be used in biological weapons. These bio agents can be modified from their original form to make

⁶ L.R.Reddy, Bio-Terrorism As A Public Health Threat,23,(2002).

⁷ Jonathan B.Tucker, Chemical/Biological Terrorism: Coping with a New Threat, Politics and the Life Sciences, Sep.1,2020, 9.30 PM <http://www.jstor.com/stable/4236227>.

⁸ *Id.*

⁹[https://www.unog.ch/80256EE600585943/\(httpPages\)/29B727532FECBE96C12571860035A6DB?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/29B727532FECBE96C12571860035A6DB?OpenDocument)

¹⁰ Bacteria-single-cell organisms that cause diseases such as anthrax, brucellosis, tularemia, and plague.

¹¹In 1969, the U.N. General Assembly

them more adaptable for using as weapons.¹² The United States, Biological Weapons Anti-Terrorism Act of 1989, defines biological agents. These microorganisms are varied in nature and number. It includes bacteria, viruses, fungi, rickettsia or protozoa or infectious substance, or any naturally occurring, bioengineered, or synthesized component of any such microorganism or infectious substance. It is capable of causing death, disease, or other biological malfunction in a human, an animal, a plant, or another living organism.¹³ It is evident, that the agents can be used as bio-weapon by the extremists and terrorists. India's Public Health (Prevention, Control, and Management of Epidemics, Bioterrorism, and Disasters) Bill, 2017 defines bio-terrorism¹⁴. According to which, bio-terrorism is the purposeful adaption of biological agents to cause disease or death of human beings or any animal or plant through the dissemination of microorganisms or toxins through any medium. The slow and steady destructive capacity of bio-weapons have got wider acceptance and it is acknowledged by the world community. That is the main threat involved with bio-weapons.

BACKGROUND OF BIO-WEAPONS

The long and unchequered history of bio-weapons show that throughout the ages, all across the globe, there have always been efforts to use germs and disease as weapons. The indigenous South Americans deliberately used plant-derived arrow poisons such as curare and also toxin from poison. This is used mainly for hunting.¹⁵ The first bio-weapon ever used in the history was small pox which was adopted by the British army during the French and Indian War. The British gave to the Native Americans clothes that are used by the British people who had infected with small poxes.¹⁶ The result was that the widespread outbreak of small pox and British army's victory in the battle. The development and applying of bio-weapons were common during the world wars where it was indiscriminately used by all nations. During World War I, Germany used horses succumbed with anthrax disease. Later, this method was adopted by other nations also. There were instances of using arthropods and

¹⁰.[https://www.unog.ch/80256EE600585943/\(httpPages\)/29B727532FECBE96C12571860035A6DB?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/29B727532FECBE96C12571860035A6DB?OpenDocument).

¹³ Durward Johnson and James Kraska, Some synthetic Biology may not be covered by the Biological Weapons Convention, (July 24, 2020, 9:00 AM).

¹⁴ .Sec. 2(1)(b) Public Health (Prevention, Control, and Management of Epidemics, Bioterrorism, and Disasters) Bill, 2017.

¹⁵ *Supra* n.5.

13. Weapons of mass destruction,

[https://www.globalsecurity.org/wmd/intro/bio_smallpox.htm#:~:text=The%20outbreak%20of%20smallpox%20in%](https://www.globalsecurity.org/wmd/intro/bio_smallpox.htm#:~:text=The%20outbreak%20of%20smallpox%20in%20)

vector-borne pathogens as weapons in wars.¹⁷Likewise, many instances of the manufacture, use, and proliferation of bio-weapons were present in history. As a result, to prevent the indiscriminate use of bio-weapons the Biological Weapon Convention (BWC) has been adopted. The present outbreak of the Corona virus points the finger towards the Chinese labs. It can be expected that the coming years will reveal the exact fact behind the present pandemic.

IMPACT OF BIO-WEAPONS

The intentional use of pathogens or other biological agents for terrorism has proved highly effective and cause damage on a larger scale than “traditional” terrorist attacks. Keeping the societies under severe threat, it could accelerate fear and showcase distrust far beyond those communities immediately affected. Ongoing biological research programs for both defensive and offensive purposes have attained highly advanced stages in many countries like Russia, United States, China, Britain, Iran, Iraq, Canada, etc.¹⁸The impact of bioterrorism would be more when compared with the traditional forms of terrorism.¹⁹It affects the psychology of people in large numbers. The source cannot be identified and the impact cannot be assessed easily which puts the laymen to great trauma and mental stress. Another important obstacle is the manufacture, storage, sale, and use of these bio-weapons. It is not so easy to locate who all are engaged in the manufacture or uses this weapon.

It is a general notion that a chemical release or a major explosion is far more manageable than the biological challenges posed by smallpox or anthrax. In a biological attack, the consequences could be more devastating. For eg., an anthrax attack might produce casualties numbering hundreds or thousands because of their stability and infectious nature.²⁰After an explosion or a chemical attack, the worst effects of the incident can be easily overcome. The dimensions of the catastrophe can be defined, the toll of injuries and deaths can be ascertained. But in bio-weapons each day new cases can be expected and in new areas which

¹⁷.Manas Sarkar, Bio-terrorism On Six Legs: Insect Vectors Are The Major Threat To Global Health Security, 2 Public Health (September 3, 2020, 9:45PM) http://www.webmedcentral.com/article_view/1282

¹⁸ Randall D.Kats, Friendly Fire: The Mandatory Military Anthrax Vaccination Program, 1836, 50 Duke Law Journal (2000).

¹⁹ Because of the ability of pathogenic microorganisms to multiply rapidly within the host, small quantities of a biological agent if widely disseminated through the air as a respirable aerosol can inflict casualties over a large area.

²⁰ Leonard A.Cole, Countering Chem-Bio Terrorism: Limited Possibilities, 15 politics and the Life Sciences, (September 2, 2020, 8:00PM) <https://www.jstor.org/stable/4236233>.

highlights the destructive capacity of the bio-weapons.²¹ The ascertainment of catastrophe is the most difficult part of the bio-weapon. The impact would be slow and steady, but it contaminates wider areas and a large number of people across the country and later across the globe. The bio-agents are difficult to find out as they are virtually undetectable and can be handled with relative ease by properly trained persons. They are highly contagious with a short and predictable incubation period and infective in low doses. The well-planned perpetrators have all means to protect or treat their forces and population against these infectious agents or the toxins.²²

Bio-weapons and public health

Almost all of the materials and items of equipment used to cultivate Bio agents have commercial applications and are easily available in the market. It is being used in the manufacturing of food products, animal feed supplements, drinks, bio pesticides, vaccines, and pharmaceuticals. Seed cultures of pathogenic bacteria such as anthrax can be purchased from commercial vendors by sending a request letter on the letterhead of a university or research institute.²³ This easy availability makes it the main reason behind public health issues. One of the main features of the bio-agents is that it is invisible, tasteless, and carries no smell of its own. Therefore, no reliable biological detection and warning systems are currently available. Apart from that, the incubation period for the bio-agents to attack the body after infection may extend depending on the bio-agent. Slowly the number of infected persons may increase from hundreds to thousands.²⁴ The release of these agents could go undetected and unnoticed for many days and weeks. The release of bio-agents would then be followed by mass illnesses, necessitating the first line of response by the public health community.²⁵ The application and use of these bio-weapons are manifold. It has been widely applied by the military forces and other non-state entities for political assassinations, it can cause economic imbalance through the adverse effect in livestock, environmental

²¹ Supra n at.4.

²² Piyali Sengupta & Ayushi Agrawal, Emerging Threat of Bio-Terrorism: An International Perspective, 3 *Journal of Politics & Governance*, 82 (2014).

²³ Jonathan B. Tucker, Chemical/Biological Terrorism: Coping with a New Threat, 15 *Politics and the Life Sciences*, 183 (August 12, 2020, (.00 PM) <http://www.jstor.com/stable/4236227>).

²⁴ *Id.*

²⁵ Ronald M. Atlas, Combating the Threat of Biowarfare and Bioterrorism: Defending against biological weapons is critical to global security, *Bio Science*, Volume 49, Issue 6, June 1999, Pages 465–477, (available at <https://academic.oup.com/bioscience/article/49/6/465/229529#94371792> (last accessed on 1.8.2020)).

degradation, and can also be a reason for the different kinds of diseases, fear, and friction among the masses.²⁶ In a nutshell, this invisible, undetected agent can be the root cause behind the widespread hardships and sufferings of the infected people. Biological warfare agents would likely to cause significant impacts on the medical care system. Special medications or vaccines not generally available in standard pharmaceutical stocks would be required.²⁷

LEAL FRAME WORK AGAINST BIO-TERRORISM

The terrorists try to attain legitimacy through the threat or act of large-scale violence, and thereby achieve the ability to impose their values upon other countries.²⁸ Biological weapons and bio-agents are prevalent in societies worldwide. International Organisations have successfully identified and addressed the problems well in advance and tried to restrict the use of bio-agents.

International Conventions

International Conventions reflect the general notions of the state parties. Since long way back itself bio-terrorism which was prevalent worldwide since time immemorial had been taken note of by the world community. It was culminated in the form of Geneva Protocol.

Geneva Protocol 1925

Geneva Protocol²⁹ declares that Bio-weapons are prevalent throughout history among nations and there was a dire need to control it. It prohibits the use of biological weapons. But it has not restricted the possession and development of biological or chemical weapons which was the main drawback of the protocol.

Biological Weapons Convention (BWC), 1972

The ‘Convention on the prohibition of the development, production, and stockpiling of bacteriological (biological) and toxin weapons and on their destruction 1972’, (BWC)³⁰ is the

²⁶ [https://www.unog.ch/80256EE600585943/\(httpPages\)/29B727532FECBE96C12571860035A6DB?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/29B727532FECBE96C12571860035A6DB?OpenDocument) last accessed on 1.8.2020.)

²⁷ *Supra* n at.18.

²⁸ .Scott Carry, The Tipping Point: Biological Terrorism, 3journal of Strategic Security,13 (September 3, 2020, 9.00 PM)<http://scholarcommons.usf.edu/jss/vol2/iss3/2>.

²⁹It was registered in *League of Nations Treaty Series* on 7 September 1929.<https://www.un.org/disarmament/wmd/bio/1925-geneva>.

³⁰ Signed at London, Moscow, and Washington on 10 April 1972. Entered into force on 26 March 1975.

first and the only convention prevailing against the prohibition of biological weapons. The main objective as enshrined in the preamble of the BWC is to achieve progress towards complete disarmament by prohibiting all types of weapons of mass destruction³¹. The convention intends to achieve the following objectives: -

Complete prohibition of bio-weapons: The convention is very specific that it intends to eradicate biological weapons or such type of bacteriological weapons being used against people. The parties to the convention affirmed that development and production of bio agents only for the prevention of diseases, protective or other peaceful purposes. They undertake not to develop, produce or stockpile microbial or other biological agents for other objectives. It explicitly prohibits the use of weapons, equipment using such bio agents or toxins for commercial or armed purposes.³²

*Destruction of Biological agents-*The parties to the Convention undertake to destroy or to use all biological agents in their custody, jurisdiction, or control immediately or within 9 months of entry into force of the convention, for peaceful purposes³³.

*Non-transfer of biological weapons-*The parties to the convention are prohibited from transferring biological agents, toxins, weapons, or equipment³⁴ It also prohibits the development, production and stockpiling, acquisition or retention of the biological agents³⁵.

*Cooperation among the Members-*It also prescribes cooperation and consultation in solving the problems about the application of the convention. It has to be undertaken within the framework of the United Nations.³⁶ Breach of obligations of the convention can complain before the Security Council and for that matter; cooperation has to be extended by the state parties. The results of the investigation have to be informed to the state parties by the Security Council.³⁷ It also encourages the development and application of scientific discoveries for peaceful purposes. For this, the members can cooperate alone or in connection

³¹. See the preamble of the BWC.

³² Article I. of BWC.

³³. *Id.*. Article II.

³⁴. *Id.*. Article III.

³⁵. *Id.* Article IV.

³⁶. *Id.* Article V.

³⁷. *Id.* Article VI (1).

with other organizations. While implementing the Convention it shall not hamper the economic or technological development of state parties to the convention.³⁸

Amendment procedure and review: Amendments can be done with the acceptance of majority of state parties.³⁹ For the review of the procedures of the convention, after five years of the entry into force of this convention, a meeting of state parties is recommended in the convention in Geneva to see that the preamble and other provisions of the conventions are realized.⁴⁰ Since the Convention shall be of unlimited duration, the state parties to the convention can go out of the convention, if it jeopardized the supreme interests of its country.⁴¹

A review conference was held in Geneva for complying with the provisions enshrined in the BWC. Moreover, the state parties recognized that, parties to the Convention should ensure mutual co-operation for peaceful use of bio-weapons which would help to reduce the complications. Such an objective made them to agree on the annual submission of confidence-building measures regarding the areas of research centres and laboratories, and national biological defence research and development programmes, outbreaks of infectious diseases and similar occurrences caused by toxins; encouragement of publication of results, and promotion of the use of knowledge; active promotion of contacts, legislation, regulations and other measures.⁴²

Loopholes in BWC

Even though the BWC had some novel ideas for the proliferation of bio-weapons and total disarmament, there are some areas to be pointed out. The BWC does not contain any provision for monitoring the members about the compliance of the provisions. Still, in many parts of the world, among the member countries themselves, experimentations in bio-agents are going on with experts in these areas. As declared by former President of Russia, Boris Yeltsin, even after a signatory of BWC, the Soviet Union engaged in a secret biological

³⁸. *Id.* Article X (1).

³⁹. *Id.* Article XI.

⁴⁰. *Id.* Article XII .

⁴¹ *Id.* Article XIII (1).

⁴⁰. *Id.*.

weapons program⁴³. A biological weapons program doesn't require huge plants or a large number of personnel. That makes it difficult to find out the violators of the BWC among state parties even after closed monitoring. The state parties are still ignorant or less concerned with the modus operandi of bio terrorists. The outbreak of corona virus has given a renaissance to the BWC provisions and its impact among world countries.

Legislative history in India

India, being a democratic country, is most vulnerable to terrorism. There are internal and external forces playing behind to attack our democracy. In the backdrop of an increased number of terrorist attacks, India is armed with much legislation to combat terrorism in any form. The National Investigation Act, 2008⁴⁴ is the pioneer law in this regard and the Act has also prescribed for the establishment of a National Investigation Agency for bringing more efficiency in the investigation process in terrorist activities. The amendments were brought out in the Unlawful Activities (Prevention) Act, 1967⁴⁵, a Code of Criminal Procedure, 1973 to strengthen the fight against terrorism. The changes in the Criminal Procedure Code, bound to have a bearing on not only the accused of terrorist acts but also on the victims thereof. The new laws have doubled the length of time as the suspected militants are allowed to be detained without charge. The tougher portion of UAPA, 2008 will be executed by the National Investigation Agency. Still, all these enactments lack a specific attention towards the proliferation of bio agents or threat of bio weapons.

Public Health (Prevention, Control, and Management of Epidemics, Bioterrorism, and Disasters) Bill, 2017

In India, the first legislative attempt to address the epidemic and bio terrorism commences with this Bill. The Bill as its objective says that it aims to prevent and manage epidemics, public health consequences of disasters, acts of bioterrorism, or likelihood of threats.⁴⁶ It has prescribed provisions for the powers of central government, state and union territories, and district or local authorities in case of public emergencies. It has also prescribed provisions for

⁴³Barry R.Schneider,Biological Weapons Convention –International agreement,(September2,2020,9.30PM) <https://www.britannica.com/event/Biological-Weapons-Convention>.

⁴⁴. The Preamble of the Act is to constitute an investigation agency.

⁴⁵. See the Preamble of the Act which is to prevent certain unlawful activities of individuals and associations .

⁴⁶. See the Preamble of the Bill.

observation, quarantine, and for isolating a person or class of persons if the situation warrants.⁴⁷ The provisions included in the Bill are a dire need of the time to combat bio-terrorism in Indian soil.

FINDINGS AND CONCLUSION

Terrorism, in any form, is a threat to mankind and it has to be eliminated from the world. The states have to pool their resources to counter international terrorism including bioterrorism. New ventures like bio defence systems and strict public health monitoring are the need of the time to prevent bio-terror attacks. The measures to prevent it at any time is the primary requirement to respond to its outbreak. Early detection of outbreak and capability to assess the impact is an essential tool in the case of biological weapons. The time taken to detect a bio-terror attack is very crucial, as faster the health department can respond to prevent its exposure and to begin treatment of those who have been exposed. Additional vaccines and new therapies are needed, and some countries have already developed vaccines. Active immunization will probably be the best way to protect military forces against a wide variety of biological threats. Apart from that, the proper and timely identification of the infectious agent is very important for the protection of the common man and even to the health workers. The medical team and the health workers have to be equipped with proper Personal Protective Equipment, masks, gloves, and other protective measures to guard themselves against contamination, and the antidotes and antibiotics should be available against the bio-agents.

On a close perusal of global and national legal framework it is evident that, the studies and research conducted to assess the actual efficiency of counter bioterrorism measures are insufficient. International attempts and regional laws to combat bioterrorism are inadequate as technology is developing day by day. Both at the national and international level, bio agents and bio-weapons education and awareness should be given to health professionals and even to voluntary groups. However, the presence of a convention like BWC will serve the purpose of a watchdog even among non-signatory members from dispensing with biological weapon programs. But it is too insufficient because it doesn't have any strict compliance mechanism which has to be rectified. It is necessary to strengthen preventive bioterrorism measures using competent institutions that can better cooperate with the international

⁴⁷. Section 3 of the Bill.

community in their fight against terrorism and especially bioterrorism. Moreover, global community has to awaken from sleep and a global moral consensus among the states condemning bio terrorism is required.