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Laila Indriyanti Fitria

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Broto Wardoyo, Ph.D.

Convenor

Shofwan Al Banna Choiruzzad, Ph.D.

Guide Extended Abstract

BIOTERRORISM; WEAPON OF MASS DESTRUCTION THREAT THAT'S BEING FORGOTTEN

Laila Indriyanti Fitria

e-mail : lindriyantif@gmail.com

Doctoral Programme, Criminology Department Faculty of Social and Political Science,
University of Indonesia

Abstract

Weapon of Mass Destruction (WMD) has been and always considered as one of the most powerful weapon a nation can have. But these doesn't merely mean that only "state" can use WMD as their weapon of choice. In 1999, The British Medical Association point out that there were 12 countries in the world that studied about biological weapon. After the successful attack held by Aum Shinrikyo group in 1994 and 1995, many terrorist group start to consider the using of bio-chemical agent as their weapon of choice, which then we called as bioterrorism. Terrorist groups such as Al-Qaeda (AQ) and Islamic States (IS) have actively pursued the use of biological weapons. But since 1995, there hasn't been any "successful" bioterrorism attack and the world government seems to forget how deadly the bioterrorism attack can be.

Key Words : Bioterrorism; Weapon of Mass Destruction (WMD); Security

Introduction

Aum Shinrikyo group is well known as one of the successful terrorist group that manage to carrying out bioterrorism attack in the world after the world war. In the attack that occurred on March 20, 1995, it is estimated that around 5800 people were injured and 13 people died as the result of this terrorist attack (bbc.com, 2018). This attack was not the first biological attack done by this group, it was recorded that on June 27, 1994 this group had attempted to use sarin gas in the Matsumoto area, Tokyo (Olso, 1999). One of the difference that we can spot in between these two attacks was the target. Eventho there hasn't been any fixed definition about terrorism. This paper will use the definition of terrorism by Mustofa (2002) which said "acts of violence or threats to commit acts of violence directed at random targets (no direct relationship with the perpetrator which resulted in damage, death, fear, uncertainty, mass despair".

Result and Discussion

When we talk about weapon of mass destruction –then to be called WMD in this paper. Based on the definition by the United Nations known as "... atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the

future which might have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above.” (Affairs, 2013). In short, WMD are typically understood to encompass chemical, biological, radiological, and nuclear (CBRN) weapons. Not all CBRN weapons, though, constitute WMD. This distinction is especially important in the case of non-state actors, since such actors often operate under severe resource constraints and are far more likely to plan or implement smaller-scale chemical, biological, or radiological attacks that fall below the WMD threshold. (Ackerman & Jacome, 2018).

The specter of terrorist and other violent non-state actors acquiring WMD is perhaps and even greater concern than acquisition of WMD by states (Ackerman & Jacome, 2018). When we talk about terrorist attack, we tend to focus on bombings. While when we see the data on the global terrorism database, the types of terror attacks vary from plane hijackings, bus hijackings, and/or kidnappings of important figures. The tools used for terrorist attacks also vary from the use of explosive materials (bombs, chemicals), nuclear weapons and biological weapons. Martin (2017) stated that many experts in the security field stated that in the current modern era, terrorism is classified based on several typologies. Although until now experts and researchers in the field of terrorism and security have not reached the same agreement on the definition of terrorism itself, Martin (2017) classifies eight (8) typologies of terrorism :1. The New Terrorism, 2. State Terrorism, 3. Dissident Terrorism, 4. Religious Terrorism, 5. Ideological Terrorism, 6. International Terrorism, 7. Criminal Incident Terrorism, 8. Gender-Selective Terrorism. This paper would like to underline that although Martin (2017) classifies terrorism into these eight (8) typologies, in practice terrorism is always changing so these categorization will always change with the time.

These paper will then conclude and try to analyze the typology of terrorism attack under these categories, as shown in the figure 1 :

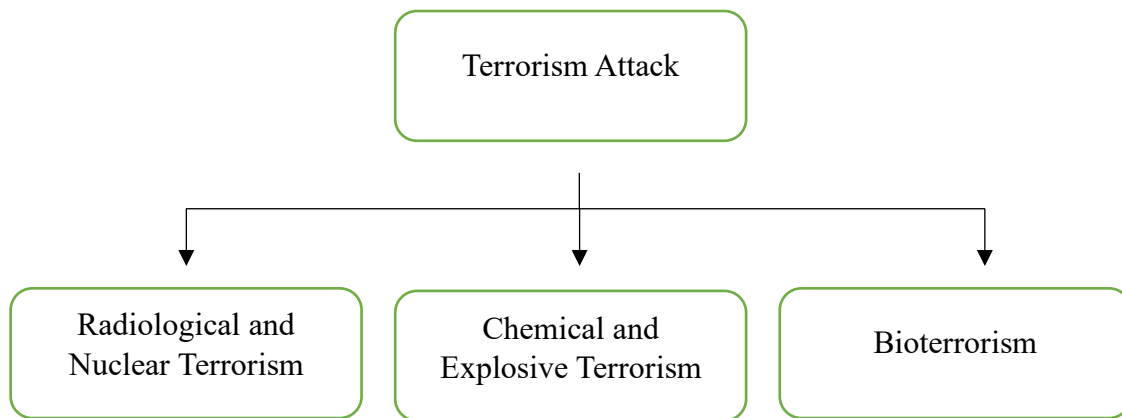


Figure 1 : The type of terrorism attack that will be discussed in this paper

The use of biological weapons by terrorism then becomes a common choice because they are easy and cheap to produce, easy to disseminate and have a much more effective effect when compared to regular bombing. Apart from that, bioterrorism is much more difficult for world countries to detect, terrorists then use biological weapons as a method to create mass panic (William and Sizemore, 2020). Bioterrorism is defined as the deliberate release of viruses, bacteria,

or toxins in a population with the aim of creating disease and paralyzing or killing humans, other animals or plants (Ashford in Gwerder, Beaton, Daniell, 2001). Bioterrorism itself is a type of terrorist attack that uses microorganisms or infected samples to cause terror and panic in a population. Bioterrorism began in the 14th century BC, when the Hittites sent infected rams to their enemies (Barras, Greub, 2014). The development of the use of biological weapons started from the use of corpses and animal carcasses to contaminate the water supplies of soldiers and civilians to the development of special ammunition for use on battlefields in the past, many countries at war have begun to do so (George in Gwerder, Beaton and Daniell, 2001).

History shows, the use of biological weapons in warfare began in 1346. In that year the Tartar army, which at that time was confined in the Kaffa region (now known as Krimea, Ukraine) experienced a plague epidemic. The Tartar army refused to withdraw from the war, they then threw the bodies of the plague victims over the city walls which caused the defense troops to retreat and the Tartar army succeeded in conquering the Kaffa region. In the 1700s, British troops in North America deliberately distributed blankets infected with smallpox as a biological weapon to reduce the Native American population (George in Gwerder, Beaton and Daniell, 2001). In research conducted by Yamaguchi (2001) during World War II, the Japanese military distributed wheat that had been mixed with infected fleas to trigger an outbreak of bubonic plague (Yamaguchi in Gwerder, Beaton and Daniell, 2001). Several more well known bioterrorism case will be put under the table 1.

| No | Case | Time/Place | Victim | Information |
|----|------------------------------|---|--|--|
| 1 | The Black Sea Bubonic Plague | 13 th Century / Kaffa (today known as Krimea, Ukraine) | Not known | This attack was carried out by Tartar Forces while attacking Genoese forces in Kaffa, the Black Sea. Then the Tartar forces, with their ingenuity, changed the situations by attacking the Genoa troops by throwing the dead bodies caused by the plague into the siege to repel the troops out of the city (Gottfried in Elyasa, 2021). |
| 2 | RISE | 1972 / Chicago, United States of America | No Victim / Successfully thwarted by local authorities | In 1972 police arrested two college students in Chicago, Allen Charles Schwander and Stephen Pera. They belonged to the terrorist organization called RISE that was established in 1971. RISE was on the verge of releasing typhoid and other bacteria to poisoning Chicago water |

| | | | | |
|---|------------------|---|--|---|
| | | | | supply system, to commit mass murder (NYTimes in Elyasa, 2021). |
| 3 | Rajneeshee | 1984 / Oregon, United States of America | 751 were injured | In 1984 in Dallas, Oregon, a group of Bhagwan Shree Rajneesh's followers was poisoning the food through the deliberate contamination of salad bar at ten local restaurants with <i>Salmonella Typhimurium</i> . It sickened 751 people back then, and it is known that they did such an act because the cult tried to manipulate the result of the 1984 election (Carus in Elyasa, 2021). |
| 4 | Aum Shinrikyo | 1995 / Tokyo, Japan | Estimated around 5.800 people injured, 13 people dead. | In 1995 a Japan based religious cult Aum Shinrikyo committed spread <i>sarin</i> nerve gas, a chemical agent on the Tokyo Subway. The cult is also known to be capable of producing biological agents and tried to use them. Police investigations suggests that the cult has among its members skilled scientists and technicians trained and experienced in microbiology, who attempted to make weapons using anthrax, botulinum toxin, Q-Fever and even ebola (Carus in Elyasa, 2021). |
| 5 | Anthrax Packages | 2001 / United States of America | More than 30.000 people were infected, five people died and 17 were injured, | One week after the terrorist attack on the World Trade Center building, America was attacked by an envelope filled with anthrax spores sent to government offices and media companies throughout the country (Funk in Elyasa, 2021). |

Table 1 : The Case of Bioterrorism (Elyasa, 2021).

When we speak of the threat of terrorists and other violent non-state actors (VNSAs) using WMD, we imply CBRN weapons that, if used, would inflict catastrophic casualties, widespread social disruption, or devastating economic consequences beyond those resulting from all but the largest conventional attacks (Ackerman & Jacome, 2018). Despite much hype and fear, there has never been an unequivocal WMD attack by a VNSA. The closest cases include Aum Shinrikyo’s dispersal of sarin on the Tokyo subway in March 1995 (that killed 12 and injured more than 1,000), the possible sabotage of the Union Carbide chemical plant in Bhopal, India in 1984 (that led to several thousand deaths from exposure to methyl isocyanate), and a 1996 poisoning by the Khmer Rouge in Cambodia (that led to hundreds of casualties). In all of these cases, there is doubt as to either the intentions of the perpetrators or the number of casualties caused. The absence of WMD attacks does not mean that VNSAs have not attempted to obtain or use CBRN. The University of Maryland, through its Profiles of Incidents Involving CBRN by Non-state Actors (POICN) Database, has recorded more than 517 cases of pursuit or attempted use of CBRN weapons by VNSAs since 1990, many of which are believed to have been attempts to deploy WMD scale attacks (Ackerman & Jacome, 2018). The breakdown of agents used or planned for use is depicted in Table 2.

Table 2 : Agents Used or Planned for Use, 1996 – 2016. (Ackerman & Jacome, 2018)

| Agent Type | Number of Events |
|-------------------|-------------------------|
| Biological | 107 |
| Chemical | 400 |
| Radiological | 55 |
| Nuclear | 18 |
| Total | 580* |

*Certain incidents involve more than one agent type, therefore agents used exceeds the total 517 incidents during the timeframe.

The shortest—not necessarily the easiest—route for a non-state actor to acquire a nuclear weapon is to obtain one from a preexisting state arsenal. That being said, nuclear warheads in state arsenals are among the best protected items on earth. Absent insider access or a rare breakdown of security—e.g. during a coup d’état—VNSAs would find it extraordinarily difficult to acquire and smuggle an intact weapon without detection. Fabricating their own fissile material from raw products would demand prolonged engagement in either the enrichment of uranium or the chemical separation of plutonium—processes that experts believe to be too complex, costly, and detectable for any currently known terrorist organization to realistically undertake (Ackerman & Jacome, 2018).

Bioterorism; Weapon of Mass Destruction Threat That's Being Forgotten

LAILA INDRIYANTI FITRIA
CRIMINOLOGY DEPARTMENT,
FACULTY OF SOCIAL AND POLITICAL SCIENCES -
UNIVERSITY OF INDONESIA



Weapon of Mass Destruction (WMD)

According to UNRCPPD, WMD is “... atomic explosive weapons, radioactive material weapon, lethal chemical and biological weapon and any weapon developed in the future which might have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above.”



Weapon of Mass Destruction (WMD) has been around ever since the World War.



Weapons of mass destruction are typically understood to encompass chemical, biological, radiological, and nuclear (CBRN) weapons.

Not all CBRN weapons, though, constitute WMD. This distinction is especially important in the case of non-state actors, since such actors often operate under severe resource constraints and are far more likely to plan or implement smaller-scale chemical, biological, or radiological attacks that fall below the WMD threshold.

In an article published by Rosenau (2001), the Aum Shinrikyo group became the first non state group that use bio-chemical agent toward civilian.

About 5800 people were injured and 13 people died in the attack that occurred on March 20, 1995.

(1999). Biological Weapons:
The Potential for Terrorist
Use. Strategic Comments,
5:5,1-2. DOI :
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The British Medical Association

A warning that in the future advances in
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There are 12 countries in the
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Israel, Iraq, Iran, Suriah, Libya, Korea
Utara dan Rusia



Galamas, F., Bilala, A. (2015). A Bioterrorism Prevention Initiative. *The Non Proliferation Review*, 22:1, 83-92. DOI: 10.1080/10736700.2015.1070016



in Bacchus project, several microbiologist experts and engineer been ask to made biological weapon based on ingredients that are available on the market. These project then proves that, the knowledge to make biological weapons does not depend on whether the biological weapons manufacturer has experience in making biological weapons or not.

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*Thank
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