

Disarmament Committee

Combating nuclear terrorism



Forum	Disarmament Committee
Issue:	Combating nuclear terrorism
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Introduction

In the modern age, terrorism is becoming a bigger problem. It seems like almost every week there is a shooting in the USA. The IEP recorded a 17% increase of terrorist attacks in 2021.^[1] The internet has helped terrorist groups spread their ideologies and radicalise foreigners. This allows them to commit attacks without ever having to travel to said state. Extremist groups are becoming more and more popular. This can lead to more frequent and larger scale attacks resulting in more casualties. We need to keep weapons of mass destruction (WMD) out of the hands of these groups.

The post-cold war decline in WMDs has ended and the nine states that still have these weapons are modernising their arsenals. To this day the Russian Federation and the USA still hold over 90% of nuclear warheads, but the other six states (China, UK, France, India, Pakistan and North Korea) have been upgrading their nuclear arsenals or expressed the intention to do so. This comes despite the 2022 P5 (China, Russian Federation, USA, UK, and France) statement that nuclear war cannot be won and should thus be avoided.^[2]

Definition of Key Terms

Dirty bomb

A dirty bomb (also known as a radiological dispersion device (RDD)) is a conventional explosive combined with a radioactive material. Deaths and injuries from such a bomb are minimal, however, the social, psychological and, economic damages would be far greater. Since many radioactive materials have other applications, they are easier to acquire.

Domestic terrorism



Violent and criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic influences. These include those of political, religious, social, racial, or environmental nature.

Improvised nuclear device (IND)

A nuclear device or fissile material that is illicitly stolen, bought or elsehow obtained.

International terrorism

Violent and criminal acts committed by individuals and/or groups to further ideological goals stemming from international influences. These include those of political, religious, social, racial, or environmental nature.

Nuclear weapons

A nuclear weapon (also known as an atom bomb, atomic bomb, nuclear bomb, or nuclear warhead) is an explosive device that derives its destructive force from nuclear reactions, either fission (fission bomb) or a combination of fission and fusion reactions (thermonuclear bomb). Both bomb types release large quantities of energy from relatively small amounts of matter.

Weapons of mass destruction (WMD)

A WMD is a chemical, biological, radiological, nuclear, or other type of weapon that can kill or bring significant harm to numerous individuals and cause significant damage.

General Overview

The subject of nuclear terrorism is highly theoretical. That doesn't mean that the threat doesn't exist, the implications of such an attack would be catastrophic.

One way that terrorists can acquire a nuclear weapon is by stealing one from a nuclear state. Other ways include dirty bombs or self-made weapons made from acquired fissile nuclear material. Corruption within governments may open a possibility for terrorist groups to purchase or trade nuclear weapons.

A dirty bomb is by far the easiest for terrorists to acquire because the radioactive materials used for these have widespread applications. For example, the sterilisation of food, smoke detectors,



and other agricultural or medicinal uses. These are relatively easy to find because these materials are often not secured. Suitable materials for dirty bombs include cobalt-60, strontium-90, caesium-137 and iridium-192. The problem with these dirty bombs lies in its radiological effects. The radioactive material is vaporised during the explosion and is blast into the atmosphere to then be spread across the region. This leads to a great contamination zone which forces many people to evacuate.

Nuclear weapons and materials are generally very well guarded, however vulnerable moments such as during transportation opens the risk of theft. Nevertheless, there have not been any confirmed such cases.^[3] Nuclear bomb theft is unlikely thanks to them being closely monitored and protected with security systems such as one that renders these useless if tried to disassemble.

Illegal fissile nuclear materials are traded on black markets. The IAEA recorded a peak of smuggling 1994. There still is a lot of uncertainty whether these reports are true. The percentage of smugglers that have been caught is unknown as well. Making an IND is challenging because a lot of expertise and knowledge is required. Examples of these are: uranium ignites spontaneously in the air at 150-175° C, uranium is chemically toxic and radioactive, highly enriched uranium exhibits more than 100 times as many disintegrations than natural uranium, but most importantly the fact that the pressure needed to keep the reaction going during the start of the explosion makes the material turn supercritical. This means that the slightest imperfection in the pressure wave makes the bomb lose most of its power. Picture it like trying to compress a m³ of water into ½ m³, the slightest asymmetry would cause a jet instead of compression.

Major Parties Involved

United states of America (USA)

During the arms race in the cold war, the USA produced many nuclear warheads. To this day it still has the second largest inventory of nuclear warheads. The USA has actively been fighting against terrorism. Today, the USA is still continuing to modernise its arsenal because world-wide tensions are at a peak since the cold war.

Russian Federation



The Russian federation has the world's largest nuclear arsenal. The problem being that after the collapse of the USSR in 1991, Russia lacked coordination in certain aspects which gave thieves and smugglers the chance to get to the highly valuable nuclear materials.

Timeline of Key Events

Most of the significant (UN) resolutions and treaties are under 'UN involvement', this is to avoid repetition.

Date	Description of event
June 29 th , 1957	The International Atomic Energy Agency (IAEA) is established.
October 26 th , 1979	The original Convention on the Physical Protection of Nuclear Materials (CPPNM) was adopted.
July 8 th , 2005	The CPPNM amendment was adopted.
September 14 th , 2005	International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) is established.
July 15 th , 2006	The Global Initiative to Combat Nuclear Terrorism (GICNT) is established.

UN involvement, Relevant Resolutions, Treaties and Events

Due to the severity of this issue and the possible implications of such terrorist attacks this has been a widely debated topic. However, most of these treaties and resolutions aren't up to date with modern technology and the geopolitical state of the world. All IAEA reports are left out because the reports are non-legally binding.

- Treaty on the Non-Proliferation of Nuclear Weapons (NPT), 1 July 1968
- Convention on the Physical Protection of Nuclear Materials and Nuclear Facilities (CPPNM), 26 October 1979
- UN Security Council Resolution 1373, 28 September 2001
- UN Security Council Resolution 1540, 28 April 2004
- New Strategic Arms Reduction Treaty (START), 8 April 2010



- Treaty on the prohibition of Nuclear Weapons (TPNW), 9 August 2017

Previous Attempts to solve the Issue

Attempts to solve the issue have already been listed above. However, there are many different treaties, conventions, and resolutions. Too many, as a result, the regulations have become vague and thus majorly flawed. This is hard to change because many of these aren't affiliated with the UN and can't be summarised in a single resolution or chapter. This makes the reduction of risk through protection facilities and weapon grade materials a priority as complete eradication of nuclear weapons is highly unlikely.

Attempts by the US and Russian Federation to reduce the risk of weapons of mass destruction being obtained by terror groups include the ill-fated activity in western asia targeting countries such as Iraq. Involvement in north african regions and western asia have supposedly been to help governments combat the rise of terrorism in said regions and nations such as the US, Russia, France, UK have been major parties.

Possible Solutions

Because it is very challenging for terrorists to acquire such weapons, the risk of these weapons being used are low. Essentially nuclear terrorism is preventable. Without fissile material, building a nuclear bomb is impossible. If states securely store their radioactive materials or bombs, it becomes more difficult for terrorists to get their hands on them. However, corruption cannot be ruled out. If nuclear material was traded or sold by a corrupt government, it could end up in the hands of terrorist groups.

A specific solution for dirty bombs might be the funding of research to develop ways to replace the radioactive materials currently used. As well as the wide adoption of machinery for detecting unsafe levels of radiation at key points in the transportation system.

France has implemented some of the UN regulations. This means tight communication as well as safety and security regulations around the transportation and storage of nuclear materials. Therefore, international communication and regulation is key, if every state (maybe even



independent organisation) keeps track of all the materials and resources it has and has traded, it becomes a lot harder to steal these. An example is sensitive export control. France also helped other states with safe and secure nuclear processing sites and storage. It has also compiled an inventory of spent radioactive sources of French origin and has recalled them to safely be stored in France. It has supplied other states, such as Pakistan with machinery that is able to detect radioactive materials.

Next, providing safety and first responder education to citizens, could also make sure that they would be more prepared in case a nuclear attack happens. Generalised standards on acceptable radiation/contamination levels also need to be set.

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Appendix or Appendices

[1] "Global Terrorism Index 2022 - World." ReliefWeb, 2 Mar. 2022,
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