Introduction

Extremism is the single most potent threat facing our world today and nuclear weapons are the single most potent weapons our world possesses. The acquisition of nuclear weapons and weapons of mass destruction (WMDs) by extremists could be calamitous, with nuclear weapons able to inflict colossal damage. Recent attacks, notably the infamous 9/11 attacks in New York City and Washington DC which took about 3000 lives, serve as a caution to the United Nations that international security is of crucial importance.

Since the invention of the atomic bomb, efforts have been made to prevent extremists from acquiring these WMDs. Thus, concern has also been raised about the availability of stolen plutonium or enriched uranium in the parallel market, and an equally concerning prospect is the magnitude of damage that can be caused by even a rudimentary bomb if detonated in a populated area.

Beyond the five original nuclear powers i.e. China, USA, UK, Russia and France, currently only four other nations are thought to have offensive nuclear capability: India, Pakistan, North Korea and Israel however Israel is dubious in the matter. Several more are suspected of harbouring offensive biological weapons programs and developing chemical WMDs. Although, no extremist organization is known to possess a nuclear or biological weapon, the IAEA has reported 18 incidences of theft or loss of highly enriched Uranium or Plutonium.

Traditionally, governments and concerned officials have prevented the illicit distribution of nuclear weapons, material or technological information, however with increasing privatization and free trade policies coinciding with rapid betterment of transportation as well as the burgeoning of extremist organizations, the non-proliferation policies implemented by governments are being seriously challenged.

The consequences of extremist groups obtaining nuclear weapons can be apocalyptic; which is why the essence of the problem lies solely with one factor, security. However the maintenance of
security involves a stable political and economic system within a country, as well as strong relations with allies that allow for sharing of intelligence and exchanging of technical assistance and know-how. Thus, the Disarmament and International Security Committee faces a complex twofold challenge: the committee must ensure that these WMDs and all related materials are adequately protected as well as maintain the stability of nations at risk is ensured so as to not jeopardize international relations, which are at a seemingly precarious juncture in the current political climate.

**Definition of Key Terms**

**Weapon of Mass Destruction (WMD)**

WMDs are atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above.¹

**Nuclear Weapon**

A nuclear weapon sources its energy from nuclear fusion and fission to cause a potentially disastrous release of energy and nuclear radiation on detonation.

**Extremism**

Despite having much deliberation on the matter, the UN has not agreed upon a uniformly accepted definition of “terrorism”. Therefore for the purpose of this conference, the term “extremism” will be used. Extremism refers to acts in the name of fanaticism to an ideology that incites the use of violence. An extremist is defined as the perpetrator of the aforementioned violent acts.

**State sponsored extremism**

State sponsored extremism refers to the support of military organizations or extremist groups not part of a country’s national defence in order to carry out acts of extremism.

**Enriched uranium**

The enrichment of Uranium isotope $^{238}$U to $^{235}$U is necessary for both the production of nuclear energy in nuclear power plants as well as the production of nuclear weapons. While the Uranium used for generating electricity is Low Enriched Uranium (LEU), which has a mixture of the isotopes with a concentration of $^{235}$U lesser than 20% of the mixture, the Uranium used for making nuclear

---

weapons is Highly Enriched Uranium (HEU), which has a mixture of the isotopes with a concentration of $^{235}\text{U}$ greater than 20% of the mixture.

## Background Information

**Means extremist groups can use to obtain or process nuclear weaponry**

Extremist groups can explore the avenue of processing uranium or plutonium into weapons-grade material and then designing and constructing a bomb. This might be possible if a country were to engage in state sponsored extremism. In such a case it would be seemingly impossible to prevent a group from acquiring fissile material and using it for nuclear extremism.

Moreover extremist groups can acquire weapons-grade fissile material, and design and construct a weapon. This is the most likely option as a country’s fissile material may not be protected effectively, allowing extremist groups to illegally obtain fissile material in order for them to construct their own weapons.

A third possibility is an extremist group obtaining an intact nuclear weapon, however it is not very likely as a country’s armoury is well guarded and although it would be seemingly impossible for an extremist group to lay their hands on a functioning WMD, the threat remains sound.

There is no legal way to find the material needed to produce weapons of mass destruction. Thus, it is lucid that there is a black market in which such technology is available. Thus parallel markets remain one of the biggest threats to this system. “In one reported case, police in former Soviet Moldova two years ago seized highly enriched uranium carried by smugglers in a shielded container to prevent it from being detected, a sign of increased sophistication of such gangs.” ² The gang reported to having about 9kgs of Plutonium and had reportedly found a buyer from North Africa. About 8kg of Plutonium is enough to create a crude bomb that could take hundreds of lives.

**Political strife in the Middle East**

In the extremely volatile Middle East, proliferation exacerbates already dangerous threats to local and global security. The Middle East and North Africa (MENA) region, which includes the Persian Gulf states, Israel, and North African nations, has the world’s highest concentration of biological and chemical weapons in the hands of states at odds with their neighbours. Many of these states also face hostile relations within their own borders. Another solution is to make the Middle East a nuclear free zone.

---

Major Countries and Organizations Involved

United States of America

After having suffered attacks by WMDs, the United States of America is now the country which probably fears most the possibility that of attack if WMDs were obtained by extremists. Thus, it has taken national initiatives, such as the creation of Federal Bureau of Investigation's Weapons of Mass Destruction Directorate (WMDD), whose occupation is to ensure that extremist groups or nations (except for France, United Kingdom, China, Russia, and United States, which have the right to possess but not use WMD) will not obtain weapons of mass destruction. USA has played a key role in the international diplomacy and exercised pressure in order to adopt measures to prevent the danger on numerous occasions. USA has also shown initiative in addressing the issue, with president Obama claiming that “In short, it is increasingly clear that the danger of nuclear terrorism is one of the greatest threats to global security, to our collective security.”

Pakistan

Although it is supposed to be an ally of the United States, it is alleged that Pakistan is a state that helps extremist groups. The existence of an illegal market in Pakistan that may be able to supply extremists with the raw material for the construction of weapons of mass destruction is also a concern. There is an intense presence of Al Qaeda in this nation. Moreover, Pakistan has not signed or ratified the Nuclear Non-Proliferation Treaty (NPT) and it has a significant nuclear arsenal as well. According to Pakistani Afghanistan expert Ahmed Rashid, "Between 1994 and 1999, an estimated 80,000 to 100,000 Pakistanis trained and fought in Afghanistan" on the side of the Taliban.

Afghanistan

It has been the nation that is considered to have the strongest links with extremist groups. Training camps for extremist organizations such as the Al Qaeda and Taliban, many of which have been destroyed mainly by the United States of America. Another reason why Afghanistan is believed to be such a dangerous country in terms of extremism is the power that Taliban have over the region. Thus the maintenance of security in Afghanistan is essential.

---

Russia

Ever since the collapse of the Soviet Union in 1991, the safety of Russian fissile material and nuclear power plants is constantly under scrutiny. It is widely believed that the Russian nuclear material is most vulnerable to the threat of an extremist attack as numerous sites appear below par in terms of security and unfortunately there is still no complete, provable structure of nuclear supplies accountability. The total amount of fissile material in Russia, produced by the Soviet Union is not fully known as well. With definite occurrences of Russian-origin fissile materials appearing on the parallel market, this risk involved with these materials is especially imminent. Furthermore, there is also not been an adequate solution to the problem of the disposal of plutonium samples recovered from neutralized Soviet union warheads.

International Atomic Energy Agency (IAEA)

This organization is responsible for the safe use of nuclear energy. It is related with the issue of extremists and weapons of mass destruction because it is the one which is supposed to find out whether a nation uses nuclear energy for peaceful purposes or uses it in a way, such as selling it to extremist, that poses a threat to the international community. It reports both to the United Nations Security Council (UNSC) as well as the United Nations General Assembly (UNGA)

Taliban

The Taliban is an Islamic fundamentalist political movement in Afghanistan. It governed Afghanistan as the Islamic Emirate of Afghanistan from 1996 to 2001. Although it is viewed by a large part of the international community as an extremist organization not only for its violent use of its military power, its blatant human rights abuses and its disfiguration of Islamic ideology, three countries have given this organization diplomatic recognition: United Arab Emirates, Pakistan and Saudi Arabia. Capable of both gaining access to nuclear weapons and material as well as detonating it, this organization is especially dangerous, given that it governed a country for 5 years.

Al Qaeda

Formed by Osama bin Laden in approximately 1989, the Al Qaeda is a militant Islamic organization that was responsible for the attacks in New York City and Washington DC in 2001. It was earlier alleged that the organization was funded by the personal wealth of Osama bin Laden; however there was also speculation about it being sponsored by a country. If this is the case, then the Al Qaeda may get their hands on fissile material which could be a threat to the international community as a whole.
## Timeline of Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939 - 1945</td>
<td>The approximate time corresponding to the invention of the atomic bomb</td>
</tr>
<tr>
<td>August 6 and 9, 1945</td>
<td>Airmen belonging to the United States of America drop atomic bombs on Hiroshima and Nagasaki respectively. This is the first and only use of nuclear weaponry till date</td>
</tr>
<tr>
<td>October 10, 1963</td>
<td>The Limited Test Ban Treaty is put into effect</td>
</tr>
<tr>
<td>July 1, 1968</td>
<td>The treaty on the Non-Proliferation of nuclear weapons is opened for signature</td>
</tr>
<tr>
<td>Early 1989</td>
<td>The militant Islamist organization Al Qaeda is formed by Osama bin Laden</td>
</tr>
<tr>
<td>1991</td>
<td>Formation of the Islamic Fundamentalist Taliban</td>
</tr>
<tr>
<td>May 11, 1995</td>
<td>The treaty on the Non-Proliferation of nuclear weapons is extended indefinitely</td>
</tr>
<tr>
<td>September 24, 1996</td>
<td>The Comprehensive Test Ban Treaty is signed by 153 countries</td>
</tr>
<tr>
<td>September 11, 2001</td>
<td>Attacks in New York on the Twin Towers by Al Qaeda</td>
</tr>
<tr>
<td>April 12 and 13, 2010</td>
<td>The first Nuclear Security Summit is held in Washington</td>
</tr>
<tr>
<td>Jun 29, 2011</td>
<td>Six people were arrested in Moldova, in possession of weapons grade Uranium</td>
</tr>
</tbody>
</table>

## Relevant UN Treaties and Events

### Events, meetings and summits

- United Nations High-Level Meeting on Countering Nuclear Terrorism with a Specific Focus on Strengthening the Legal Framework 28 September 2012
- Security Council 6753rd Meeting (AM) 19 April 2012 *(SC/10612)*
- Report of the Disarmament Commission April 30 1999 *(A/54/42)*

### UN Resolutions

- International terrorism and the illegal movement of nuclear materials 28 September 2001 *(S/RES/1373)*
- Proliferation of nuclear, chemical and biological weapons 28 April 2004 *(S/RES/1540)*

### Treaties and Conventions

• Treaty on the Non-Proliferation of nuclear Weapons 1 July 1968
• The Comprehensive Test Ban Treaty 24 September 1996
• The Limited Test Ban Treaty 10 October 1963

Previous Attempts to solve the Issue

Passed unanimously on 28 April 2004, Resolution 1540 requires all UN member-state governments to undertake a series of measures to prevent the proliferation and transfer to extremists and other non-state actors of biological, chemical, and nuclear weapons, their delivery systems, and related materials. It specifically prohibits countries from providing any kind of support to non-state actors to develop WMD. Methods to further implement this resolution are necessary such as the provision of economic and financial incentives, trade and technology assistance, and security assurances to induce compliance with non-proliferation and counter-extremism directives.

Ad hoc multilateral approaches have made significant contributions to increasing awareness and pooling resources to prevent nuclear materials from getting into the hands of extremists. For example, the “Global Partnership against the Spread of Weapons and Materials of Mass Destruction”, launched by the Group of Eight (G8) industrialised countries in 2002, pledged $20 billion over a ten-year period to non-proliferation efforts, including $10 billion from the United States.

Another means used to tackle the problem related to nuclear weapons is the use of treaties. The treaty on the non-proliferation of nuclear weapons is the most relevant in this regard, and rests on 3 sound principles of non-proliferation, disarmament and the peaceful use of nuclear power. Although it has 189 nations party to it; some key nuclear powers such as India, Pakistan and North Korea as well as some nations with dubious nuclear capabilities such as Israel are not party to it. Furthermore, it does not set about standards to guarantee the safety of these weapons. Although on principle it is strong, the fact that it does not safeguard these WMDs from extremists makes it a weak attempt at preventing nuclear extremism.

Barack Obama, president of the United States of America, initiated a Nuclear Security Summit that was held in Washington DC in 2010. A biennial conference, it was held in 2012 in Seoul. The focus of the summits held was to ensure the protection of weapons grade plutonium that could be at risk from a potential attack by extremists. The protection against the sabotage of nuclear facilities as well as the integration of nuclear security and safety were part of the discussion. However without any international standards for security, no uniform action could be taken.
**Possible Solutions**

**International cooperation**

International cooperation, of both multilateral and bilateral nature, between nations is essential in order to provide a unified stance against extremism of all kinds. The provision of a forum would enable countries to deliberate upon their solutions and allow technical aid in additional security or concealment strategies. Furthermore, they can exchange timely information. Collaboration with agencies such as International Criminal Police Organization (INTERPOL) would also result in the spread of intelligence, awareness and technical assistance with regard to maintaining security of nuclear power plants and WMDs. Since the end of the Cold War, the United States and Russia have embarked on numerous bilateral initiatives, collectively referred to as “Co-operative Threat Reduction” (CTR), which has helped Russia and other countries of the former Soviet Union to deal safely with their Cold War legacies of expertise and materials related to nuclear, biological, and chemical weapons.

**Enforcement and implementation of agreements**

Enhanced international enforcement of the UN counter-extremism mandates that criminalise all forms of support for extremist networks. Enforcing international agreements to reduce and eliminate WMDs and to regulate the trade in weapons-usable technologies is a step forward in curtailing the proliferation and illicit distribution of WMDs. A greater role for the United Nations and other international institutions in enforcing compliance with arms control agreements and overseeing weapons inspections is necessary.

**Creation of nuclear free zones**

The primary function of the committee is disarmament, therefore the solution related to the creation of nuclear free zones holds water, especially in regions currently in a state of unrest such as the Middle East, which is also vulnerable to extremist attacks. Gradually however, solutions should look at global disarmament of nuclear weapons and WMDs in order to fully eliminate the threat of nuclear extremism.

**Tightening security around nuclear materials**

In order to obtain nuclear materials, extremists would have to breach the security around this critical material. A fundamental problem in this regard is that there are no clearly defined international standards for the protection and concealment of nuclear armoury and an ideal solution would be to define these conditions and then enforce them. The fruitlessness of the Nuclear Security Summits held in 2010 and 2012 add an extra impetus onto the UN, whose responsibility it now is to create an international standard for nuclear weapons security.
Prevention of illicit transport of nuclear materials

The incident in Moldova, where 6 smugglers were arrested in possession of weapons grade Uranium, has illustrated the ease with which nuclear material can be transported. Another hindrance is that large amounts of legitimate shipments are made in thick, metal cartons that are difficult to monitor and check thoroughly, simply because of the sheer volume that is transported on a daily basis. A novel solution nicknamed the “nuclear car wash,” emits neutrons as a shipment passes through a scanning mechanism. The pulse of neutrons that would strike the carton would induce nuclear fission in any weapons grade nuclear material, which would then produce radioactive material, in turn generating gamma rays, which can be detected. However this mechanism is flawed as it a large amount of water can be used to shield the neutron pulse. However this method has shown promise and can be used as a provisionary method. Unfortunately, in the absence of other suitably rapid detection devices, the only other alternative is to increase security around borders and harbours, and an increase in the checking of shipments.

Dealing with an active nuclear weapon or an explosion

The detection of a weapon is equally important as its neutralization and deactivating an active weapon has proved difficult. Dealing with an emergency situation caused by the intentional or accidental explosion of a nuclear weapon is a priority, and all countries, especially nuclear countries should adequately prepare their citizens and infrastructure for a calamity. Although there are no organizations that deal specifically with the rehabilitation or evacuation or medical treatment with regards to a nuclear weapon explosion, the creation of an organization or a committee that caters to the aforementioned situations can be called for, as it deals with possibly an imminent disaster. At the moment, no country has prepared, or is in the process of preparing its citizens or its infrastructure for a nuclear weapon explosion in the country.
Bibliography


Appendix or Appendices

Appendix I: Treaties regarding Nuclear-free zones

With regards to the creation of nuclear free zones as mentioned in possible solutions, the following treaties are relevant:

- **Bangkok Treaty**: Treaty on the Southeast Asia Nuclear Weapon-Free Zone 27 March 1997

- **Treaty on a Nuclear-Weapon-Free Zone in Central Asia (CANWFZ)** 21 March 2009

- **Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean** 14 February 1967

- **South Pacific Nuclear Free Zone Treaty** 11 December 1986

- **African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba)** 15 July 2009

[Image of nuclear-free zones]