Issue description

Committee: International Atomic Energy Agency

Issue of: Preventing countries from hiding underground nuclear weapon development by building nuclear power plants

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Introduction:

Nuclear disarmament is not only an aim of the IAEA but also of the entire international community. In the past, we have seen several different occasions where nuclear threats were common, and the tension had the chance to escalate into a global nuclear war. Although several people argue that nuclear weapons actually have a positive effect on the international community, that can be true only if it is in the right hands. For two countries in conflict, it may prove to be the preventive factor of the escalation of the conflict. However, there are several aggressive regimes around the world. For them, the use of nuclear weapons is not a force holding them back.

In cases where such regimes, like the DPRK gains access to nuclear weapons, the tension can rise. It was that exact case in 2017 between the United States and the North Korean regime. For the prevention of further crises on this matter, the international community aims at limiting the number of nations possessing nuclear arsenals. On the other hand, many developing nations need investment, and investing in nuclear power has proven to be an excellent boost for underdeveloped countries' economy. Many countries see the potential in investing in nuclear power plants in these countries and do so. The aim of the IAEA is to promote the safe and sustainable use of nuclear energy while bearing with the UN principals of preventing the spread of nuclear weapons of mass destruction.

Definition of key terms:

Fission: the process of splitting nuclei releasing large amounts of energy.

Fusion: the process when two or more nuclei are combined to form one nucleus while releasing large amounts of energy.

Atomic energy: energy obtained from nuclear fusion or fission in nuclear power plants.

Uranium-238: the most common isotope of uranium, fuel of the majority of nuclear power plants.

Thorium: an alternative of uranium that can also be used to fuel nuclear power plants.

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General overview:

As mentioned before, the aim of the International Atomic Energy Agency is to promote the safe and sustainable use of nuclear energy. This involves several different types of measures, including security, environmental protection, nuclear waste allocation and also the issue of nuclear weapons. At the peak of the nuclear armament and arms race during the cold war, the Treaty on the Non-Proliferation of Nuclear Weapons, commonly referred to as the Non-Proliferation Treaty (NPT) was signed and ratified in 1970. Its goal was to put an end to the nuclear arms race and to start the process of nuclear disarmament. After the treaty expired in 1995, it was extended indefinitely. However, a couple of nations are not signatories of this treaty. India, Israel and Pakistan have never signed it and the DPRK pulled out of the treaty in 2003. The signatories have a meeting every five years at a conference held in New York. The Non-Proliferation Treaty works somewhat efficiently alongside other agreements such as the Comprehensive Nuclear-Test Ban Treaty (CTBT) and an 'Additional Protocol' expanding IAEA access to nuclear-related sites.

However, as mentioned above, some countries are still not part of this treaty. Partly because of this, the Non-Proliferation Treaty does not solve this issue entirely. In the past years there were couple of nations which allegedly turned their nuclear power programme into an underground nuclear weapon development programme. One example of that is the Democratic People's Republic of Korea (DPRK). After withdrawing from the Non-Proliferation Treaty in 2003, they admitted to have been testing nuclear weapons several times. This led to the immense rise of tension in 2017-2018 resembling a Cold War-like period. It was only solved when Kim Jong-Un, the leader of the regime announced their co-operation with the international community and willingness to begin the nuclear disarmament process. The reasons for that are up to speculations.

The most recent question is concerning the nuclear project of Iran. In a troublesome situation in the Middle East, Iran was forced to sign a deal about their nuclear programme with the P5 nations plus Germany. Before 2015, the year the deal was implemented, Iran allegedly attempted to develop a nuclear weapon of mass destruction. They claimed that their programme is peaceful, but the international community did not trust them hence the creation of this deal. The deal consisted of several factors. First of all, it limits Iran's ability to enrich large quantities of uranium to high enrichment level. So-called low enriched uranium is perfectly capable of serving as fuel in the nuclear reactors. However, weapons of mass destruction require uranium enriched much more than that. For this reason, the treaty limits the number and the efficiency of uranium enriching centrifuges. Because of this, the stockpile of Iranian uranium was drastically lowered, many of them exported to Russia. The Treaty also restrained Iran from the use of their heavy-water nuclear facility in Arak and also from building any new ones. They also joined the Additional Protocol of the IAEA and are up to robust monitoring. Fortunately for Iran, they had some gains for these sacrifices. The immense amounts of international economic sanctions were lifted. This was necessary because their crippling economy would have simply collapsed.

Based on this, it may seem that the Iran Nuclear Deal more or less solved the problem of Iranian nuclear weapon development. However, recent actions provoked a large-scale debate and opposition in the field of international politics and diplomacy. Some evidence has been released suggesting that Iran is disregarding their nuclear deal. The validity of those sources is hard to determine. What matters is, that the President of one of the main parties involved, the United States of America, Donald Trump recognizes those sources as valid. He has long been advocating against this Nuclear Deal, and in May 2018 he was able to gain support of his party

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and declared the USA to be pulling out of the Nuclear Deal and revoking the sanctions against Iran that were present before the deal. Trump's Presidency also calls upon the other P5 members, mainly their European allies, Britain, France and also Germany to follow his lead and leave the deal too. Unfortunately for Trump, Angela Merkel already said that they are not going to pull out from the deal and it seems unlikely that any of the other 4 nations involved will. Iran has declared that they are still going to abide the deal and will not attempt to restart their nuclear weapon programme. The future of the deal is still up to question. However, it seems unlikely that President Trump by himself will be enough to discredit the deal and it is likely to survive for the time being. The United States are going to reintroduce their sanctions, which may or may not include the ban on Iranian products and investments. The European Union will most likely not reintroduce sanctions for the time being. The Iranian nuclear programme will most probably not change either, as they promised to continue to abide the deal and regulations will still be robust from the side of the IAEA and the other 5 remaining signatories of the deal.

Major Parties Involved:

United States: As one of the greatest powers on Earth, the US has a great influence on most international questions. Since Donald Trump arrived in office as the President of the US, the United States began to follow a more aggressive foreign policy that proved to be relatively successful with North Korea, and based on that they attempt to implement such strategies against Iran as well.

Iran: Iran has shown to be highly co-operative in the public about the Nuclear Deal. However, the evidences published mainly by Israel and the support of the US suggest that they are not as co-operative as they were thought to be. What makes this question so difficult is the impossibility to assess the validity of the evidences presented by the Israeli intelligence.

European Union: The European Union has long been allied with the United States in issues like this, however, since the arrival of President Trump, arguments between the two major parties became common. This happened with the Iran Nuclear Deal too. The US urged the EU members to pull out of the deal while Angela Merkel, the Chancellor of Germany made it clear that they have no intention to do so. Seemingly, neither do the other two EU member P5 nations.

Russian Federation: Even though Russia is not a major party concerning the Iran Nuclear Deal, however, they are a nation that are both engaging in nuclear investments in foreign nations and are notorious to support totalitarian regimes.

Timeline of events:

1970: Ratification of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

1995: Extending the NPT indefinitely

2003: the DPRK pulls back from the NPT

2006 and 2009: First evidence of North Korean nuclear power development

2015-2016: The ratification of the Iran Nuclear Deal

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2017-2018: The North Korean 'Crisis'

2018 May: Trump's US pulls out of the Iran Nuclear Deal

Previous attempts to solve the issue:

Sometimes it can be of great hardship to identify secret weapon development. For this reason, today, almost all investments of nuclear power plants in countries not possessing nuclear arsenal with a special emphasis on preventing the possibility of granting tools for the development of weapons of mass destruction. An example for such approach is the ban on heavy-water power plants in Iran, as they can be reused in nuclear bombs.

As mentioned before, a couple of documents have been ratified with the aim of putting an end to the presence of nuclear weapons. The main, basic one is the Treaty on the Non-Proliferation of Nuclear Weapons. This was boosted with the Additional Protocol and a couple of other deals such as the Comprehensive Nuclear-Test Ban Treaty. These are some fair efforts from the part of the international community and the IAEA. The IAEA has no more authority than what the member states grant it.

Possible solutions and approaches:

As stated above, one of the prime means of prevention of such situations is to limit the possibility of means of nuclear weapon development. Aspects such as the enrichment of uranium and the prohibition of heavy-water power plants can be a solution that makes it hard for countries to develop their weapons, but it does not make it impossible for them. If the allegations about Iran are true, then that is a prime example how, even among the strictest regulations, it is possible to continue secret nuclear weapon development.

Another approach would be to do away with uranium reactors in developing countries. Many experts now advocate the use of thorium as a substitute fuel to uranium. It is not impossible to make nuclear weapons from thorium either, but it requires much more effort and it is much less efficient than the uranium ones. Based on this, advocators of thorium demand more investment in thorium-based power plants. Thorium is claimed to have several other environmental advantages and is said to be more efficient as well.

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