MITMUNC 2014 IAEA Background Guide

Topic 1: The Future of Nuclear Energy

Introduction

Nuclear Power provides approximately 13 to 14 percent of electricity worldwide, with 437 operational nuclear power reactors in 31 countries. Nuclear energy has been received with different attitudes in different countries. Some countries see it as the most efficient solution to global climate change by reducing carbon emissions. But in other nations, nuclear power faces stagnation and decline. The Fukushima Daiichi accident resulted in major upheaval in nuclear policy worldwide, with Germany deciding to phase out their nuclear power plants. However, others still believe that the nuclear option should still be retained and see nuclear power as a safe sustainable energy source.

The shifting international consensus on the appropriate uses of nuclear energy has made the future of nuclear energy uncertain. Apart from safety concerns, there are also issues like the potential for weapons proliferation that have to be considered by the member states while making decisions regarding the future of nuclear energy in their respective countries. At this conference, delegates will ideally come to a consensus on what extent nuclear power collection and research should be focused on worldwide and set up policy to reflect the global view.

History of Nuclear Power

Renewed Interest in Nuclear Power: the Oil Crisis of 1973

From October of 1973 to March of 1974, the world experienced a sharp increase in oil prices due to an oil embargo by the Organization of Arab Petroleum Exporting Countries (OAPEC). Countries a part of the OAPEC raised the price of a barrel of oil by 17% and decreased their oil production rates. Oil had become, and still is, a valuable resource that OAPEC can use to influence Western foreign affairs. In the case of the 1973 oil crisis, OAPEC aimed to

use oil to convince the West to decrease their support of Israel during the Yom Kippur War. The United States, Great Britain, Japan, Canada, and the Netherlands were all targets of the embargo and felt the crisis the most. Despite the embargo and production cuts to certain countries, there was no drastic change in policy between the Arab countries and the countries receiving the newly more expensive oil.

This crisis also led to a greater interest in renewable energy sources such as solar and wind power. In countries such as France and Japan, governments began to push their scientists and private sector to use nuclear power because of its efficiency and lack of dependence on other countries resources. At the same time, the citizens in all countries that started nuclear programs, such as the United Kingdom, began to form protests against nuclear power because of its potential dangers. The Friends of the Earth International, founded in 1969, is one of the most prominent anti-nuclear power groups still in existence today. While this group does not have a lot of political influence in many countries, it is important that delegates recognize both the government policy on nuclear power and the public opinion on nuclear power in their respective countries.

Dangers of Nuclear Energy: the Chernobyl Accident, 1986

The growth of Nuclear power helped many countries be able to rely on their own citizens and companies for energy production, thus strengthening economies and reducing the amount of oil used. More and more nuclear power plants were being built worldwide until the mid 1980's when cost overruns of nuclear power plants and disasters like the Chernobyl Accident and the Three Mile Island accident caused power plant construction plans to be cancelled.

The Chernobyl disaster occurred in 1986 in Ukraine during an experiment to test core cooling. The core reached a power level to low to sustain the experiment, thus leading to an

explosion of the core and exposing the environment to a large amount of nuclear fallout. Today, there is 30 kilometer zone in where no one is allowed to enter unless cleared by the Ukraine government in order to keep people free of radiation poison. This disaster caused many nuclear power plants in the Eastern hemisphere to change their designs since the design was from the Soviet Union. Nuclear plants in the west were not affected by design, but did see policy changes over time in safety and operation. Because of the dangers of events such as this, many people worldwide favor renewable energy over any type of nuclear energy. Although nuclear power plants are much safer today than in the past, there is always a danger to generating energy using nuclear energy techniques.

Themes of Debate

The world has a very mixed opinion on nuclear energy. Countries such as Australia, Denmark, Portugal, and New Zealand still oppose nuclear power. Since the Fukushima accident in 2011, countries such as China, Israel, and Germany are reviewing their nuclear programs. Those against nuclear power have many fears about the use of nuclear power. The disposal of nuclear waste is becoming better as technology develops, but it still can be more dangerous than the waste produced by other forms of energy. Some studies also show that all the energy put into creating nuclear energy, from uranium mining to nuclear decommissioning, is not electrically efficient. The main concern is safety of the workers involved in the process and those close to nuclear power plants.

On the other side of the debate, those in favor of nuclear energy claim that producing nuclear energy produces no carbon emissions or green house gases. Countries that use nuclear power benefit from the independence of producing their own energy source for their country instead of relying on another country for power. As the amount of oil runs out and the prices of

oil increase, nuclear energy is legally defined as a renewable resource in most countries. While opponents of nuclear power believe this energy is dangerous, proponents of nuclear power see this energy as safer than other methods of retrieving energy, such as mining for oil.

The purpose of this committee is to focus on nuclear power, but the issue of countries using nuclear resources for purposes other than energy must be kept in mind. Although many nuclear power plants are used to produce energy, some are used for other means, such as creating weapons. There are eight countries that have successfully detonated nuclear weapons according to IAEA records. The Treaty on the Non-Proliferation of Nuclear Weapons exists to promote peaceful use of nuclear energy, but not all countries are required to be a part of this treaty. Five countries are currently not a part of this treaty. Nuclear power can potentially be helpful for the world, but must be regulated.

Conclusion

The aim of this committee is to create goals for nuclear energy that most countries can agree to without violating national sovereignty. By working together in the IAEA, all countries should be able to benefit from shared information and creating/refining policy together. According to a 2013 IAEA report, there are 437 nuclear plants that exist in 31 different countries. Not all of these nuclear plants are used for electricity, thus the treat of countries using nuclear energy for weapons must be addressed. Worldwide regulations and collaboration are essential for progress in this field to be made and for the world to stay safe as nuclear technology advances.

Image

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Topic 2: Relevance of the Nuclear Non-proliferation Treaty Today

Introduction

With more than 180 signatories, the Nuclear Non-proliferation Treaty (NPT) is one of the broadest arms control treaties. It was signed in 1968 in the wake of the Cold War between the Soviet Union and the US. It has three important purposes:

1. To ensure nuclear disarmament. The NPT designates the five countries which had carried out nuclear weapon testing prior to 1968 as nuclear-weapon states. The nuclear weapon states are the UK, France, China, the US, and Russia (or the USSR in 1968). By signing the NPT, the nuclear-weapon states pledged to negotiate disarmament treaties amongst, and also not to help non-nuclear-weapon states acquire nuclear weapons. (While the P5 members are the only ones listed in the NPT as the only states that possess nuclear weapons, North Korea, Pakistan, and India have publicly announced their possession of nuclear weapons, and Israel has adopted a policy of opacity as to whether or not it possess them.)
2. To prevent the spread of nuclear weapons. Any country that signs the NPT and is not one of the nuclear-weapon states pledges not to acquire or seek to acquire nuclear weapons.
3. To allow all countries to use nuclear reactions for peaceful purposes.

The IAEA is in charge of determining whether a signatory to the NPT is using nuclear energy peacefully or not. You will be meeting to discuss what the NPT has accomplished and whether anything should be done to make it more effective. Questions that you'll need to consider include:

- Since joining the NPT is voluntary, does the NPT "force" countries to comply, or is it only the countries who aren't interested in nuclear weapons anyway that join? Can we provide some incentive for countries like Israel, India, and Pakistan?
- Is DPRK still a signatory? Was their withdrawal valid?
- Did the NPT contribute to the reduction of nuclear-related tensions since the cold war, or was the NPT made possible by de-nuclearization that happened independently of the NPT? For example, the Cuban Missile crisis was resolved 6 years before the NPT was signed.
- Are the nuclear-weapon states complying with the treaty by making significant progress towards disarmament? How can progress be improved?

Middle East and South Asia

India, Parkistan, and Israel have never signed the treaty, and show no intention of ever doing so. Indeed, it does not take an expert in international relations to know that India and Pakistan have a long-standing feud over territory. Since both are nuclear powers, the international community needs to establish better standards and guidelines for them in order to ensure that they do not use their nuclear weapons against each other or other states that might then intervene. It is definitely worth noting that the more aggressive state has been Pakistan, which has also been the one to more openly threaten use of its nuclear weapons; whereas India has tried to take a more diplomatic approach. Given the severity of the situation, this committee ought to do its best to convince these member states to join in the NPT. India in particular is hesitant to join because of the ambiguity present in the document: India believes that the treaty creates a group of member states that tested their nuclear weapons before 1967 (e.g., US) and the rest of the countries, which are supposed to be non-nuclear states. Clearly, though, this might be

against India's best interests if it believes it needs nuclear weapons to protect itself against Pakistan. And of course Pakistan then believes that it deserves these weapons because of the potential threat India might be if it had nuclear weapons. Thus, both states must agree simultaneously to work toward disarmament.

Although Israel has neither officially confirmed nor denied allegations that it possesses nuclear weapons, it is a bit of an open secret in the international community that they indeed possess this type of technology and weaponry. This allegation is largely backed up by Israel's close ties to the US, arguably the largest and most powerful nuclear state in the world, including in the categories of finance, economics, and military concerns. Moreover, in 1986, a nuclear technician, Mordechai Vanunu reported to the British Sunday Times that there is evidence of nuclear weapons programs in Israel. Though he was later charged with treason, his secrets helped almost entirely confirm what everyone else had already suspected.

Iran has been a subject of much controversy and concern in the international community, regarding especially their potential to obtain nuclear weapons. Indeed, US President Obama has made it a top priority of his to guard against Iran's possession of these weapons. While the US's and other NATO members' policy regarding Iran and nuclear weapons has almost exclusively been focused on economic sanctions, Obama wants to finish a six-month interim agreement where Iran holds off on their nuclear ambitions and the US lifts its economic sanctions against Iran. Supporters of this agreement argue that sanctions have been tried multiple times on various countries, but hardly ever work. Additionally, they point out that this sort of agreement is a sort of breath of fresh air given the long-standing pseudo-stalemate between Iran and the US—could this be another Cold War? While some nations have praised the agreement, others like Israel have assured the world that this agreement will lead to nothing but destruction and mayhem.

Indeed, in January of 2014, the Israel Minister of the Department of Defense wrote an article in which he cited two past examples of Israel's unilateral decision to strike Islamic nuclear sites without US approval. In doing so, he strongly hinted at the fact that Israel is considering these same tactics for the world of today. Were Israel to move forward with this sort of attack, many relationships would be weakened. What would the US do to Israel? Would US and Iran never be able to talk again? Would Iran strike back, causing a large-scale international war in the Middle East? Given past Iranian President Mahmoud Ahmadinejad's stance that he wants to "wipe Israel off the map," this sort of potential retaliation on the part of Iran against Israel would not be surprising.

North Korea

North Korea is a special snowflake.

After announcing its possession of nuclear weapons (confirming what many had already guessed), many in the international community scoffed at them and brushed off their subsequent threats and tests of nuclear weapons. In the past couple of years, there have been some international talk around their possession of nuclear weapons, but really the international community's focus vis-à-vis nuclear weapons has been largely on Iran, as discussed above. Furthermore, North Korea has attempted numerous nuclear strikes, perhaps trying to flex its military muscle, mainly to their chagrin given the lack of interest on the part of most major nation states around the world—most importantly the US. It is also very important to note that North Korea is the only country that had singed the NPT but later withdrawn. There have been some talks about whether it is worth the effort to try to reel North Korea back in, without much consensus among member states. Also given this action, some wonder if this sets up precedent for other states. Most especially, does this action North Korea mean that other states like India

and Pakistan, were they to join, would merely do the same if they decided that they did not like the treaty anymore? How would this committee guard against that?

P5 Members

The treaty only lists the five permanent members of the UN Security Council as nuclear weapon member states, although other countries are known to possess them. France and the UK have remained largely mute on their intentions of what they will do with their weapons. The US, on the other hand, has clear intentions on what they will do with their weapons. It is quite clear in the US foreign policy doctrine that it will use them if pressed into doing so. Or, it can provide these resources for other countries to use. For instance, the US participates in nuclear sharing with other NATO members. The US sometimes acquires these weapons, especially from the former Soviet Union, in order to turn them into nuclear energy in their reactors. Much more research must be done into the US's history with nuclear weapons, since doing so gives great insight not only into the US but also into other states that got their technology and weapons from the US.

China has remained quite unspoken in their possession of nuclear weapons, but has threatened to use them should their national interests be at stake when it comes to the dispute between India and Pakistan. Russia still has weapons leftover from the Cold War, and much like the US, it will not get rid of all of them. Is the Cold War entirely over?

These members are also seen as the global watchdogs of the other states, especially Iran currently, and how they are working towards building or dismantling these dangerous weapons. The methods they undertake to do so are hotly contested, not only between states but also within states.

Africa

South Africa is the only known state that has developed its own nuclear weapons technology by itself and then later dismantled their weapons themselves. They wanted the weapons during the time of apartheid to guard against an uprising of Blacks. However, after they signed the NPT in 1991, they started dismantling their weapons and opened themselves up for inspection in 1993; in 1994, the IAEA concluded they no longer had any weapons. After Libya signed the NPT, the IAEA investigated their country to see whether or not they had weapons. Despite their best efforts of keeping their secret weapons building program under wraps, the international community eventually found out about their nuclear weapons. After international pressure, Libya finally announced in 2003 that it would dismantle all of its weapons, which the IAEA made sure they did.

Questions

1. What roles do non-nuclear states play in this international world dominated by those nations with nuclear weapons?
2. Should all states be a part of the treaty? How can you recruit states that refuse to sign, or that left the treat altogether? Should there be penalties?
3. Is there some better solution than the NPT, better than economic sanctions?
4. What would happen if a country attacked another country with a nuclear weapon?
5. What right do other nations and the IAEA have to meddle in states' military affairs? How far does that right go?
6. How can the IAEA create clear standards of what is acceptable with regard to uranium enrichment for nuclear power and that for nuclear weapons? Iran claims it is using its uranium for nuclear power, but many say they are enriching it past the point of where it needs to be for power, but rather closer to the point it needs for nuclear weapons.

Readings

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