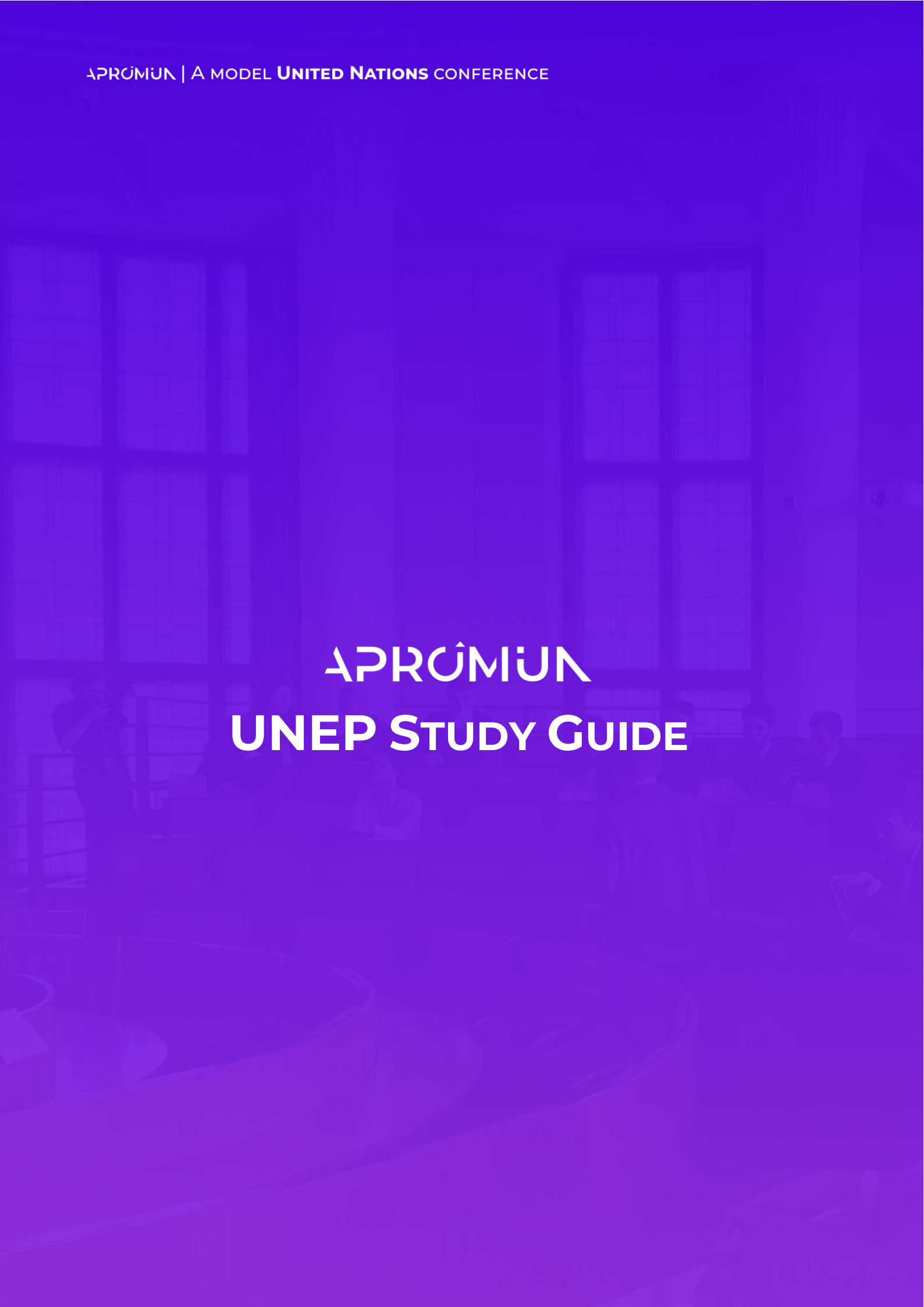

APRÓMUN

UNEP STUDY GUIDE

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II. Foreword

Dear delegates,

We are pleased to help you with your research for this year's edition of **AproMUN**. Our study guide will hopefully help you **grasp the core concepts** regarding the severe environmental issues we are currently facing. In order to participate in the discussion and writing of our future resolution(s), we **highly recommend** reading this document and some of the recommended sources that are mentioned in the text. Our study guide **doesn't provide** a complete overview of this topic, therefore we encourage the delegates to study about both the topic at hand and the stances of their countries. Regardless of your previous MUN experience, research will contribute to the **quality of your speeches** as well as our debate.

Delegates are expected to send us a Position paper by the **22nd of October**. The Position Paper is a document written by the Delegate, containing their country's position on the matter, as well as possible solutions to the problem.

(the recommended length of the Position Paper is **1 800 characters**)

If you have any questions regarding anything, be sure to hit us up on **Discord**, **Facebook**, or **Instagram**. We will be more than happy to assist you with your needs. Best of luck, cannot wait to meet you all in Bratislava!

Kind regards,

Michael and **Lucia**

III. Meet the Chairboard

1. Michael Krištof

Greetings fellow delegates! My name is Michael Krištof and I come from a place familiar to many, the very heart of Slovakia - Bratislava. I study at the School for Gifted Children and Grammar School. While my main interests do include topics such as Politics and Sociology, I also find myself drawn to the topics on the very opposite end of the spectrum, mainly relating to IT.

Nevertheless, having a passion for MUNs led me all the way to this point - having the pleasure of being your chair. Though this committee is both a place for experienced delegates and beginners alike, I urge you all not to stress too much. Despite the fact that the issues we will be tackling together are a serious threat to us all, I believe that only when everyone gets the chance to speak their mind, will we arrive at fruitful discussions. (until the crisis comes, that is...)

My first MUN was one of the previous renditions of AproMUN, an experience I will never forget. It has been a pivotal point in my life, defining many of my then newly-discovered interests. Thus, I hope from the bottom of my heart that this committee will allow first-timers to discover their passions the same way I did, yet also give the opportunity for more experienced debaters to express themselves.

That being said, delegates, before our first meeting in Bratislava, I have one last message to impart upon you:

Be prepared and have fun.

2. Lucia Dutková

Greetings and salutations, dear delegates! My name is Lucia Dutková and I am the second half the chairboard of your committee. I have the utmost pleasure to be studying at Gymnázium Jura Hronca, and the luck to be able to devote my free time to the world of brand design and digital product design, which makes everyone surprised to see me chairing committees at model conferences.

My conference experience stretches back to my start with debating, followed by Model European Parliament sessions where I was representing Slovakia on 2 international rounds, earning chair recommendations on both. I have never attended a MEP/MUN conference without winning an award, and that is exactly why I am your chair now (= I am not super smart, I am just scared of breaking my winning streak).

Many delegates, especially first timers, find themselves scared of the unknown before they attend the conference. They are afraid their English is not good enough, or that their suggestions are not worthy of being voiced out. We want to assure you that our committee and AproMUN itself is a place for learning and discovery, and that every input of yours is welcome.

But if there is something that can make you more confident, it is definitely meticulous preparation. Read through the study guide and questions provided, do your own research, and discover what is your country's stance on the topic. If you will come to the debate with clear goals and comprehensive knowledge of the topic, there is not much that could catch you off guard.

IV. Introduction to the Committee

The **United Nations Environment Programme** (UNEP) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.

This committee was established in 1972 due to the need of developing laws such as the International Labor Organization (ILO), the Food and Agriculture Organization (FAO), and the World Health Organization (WHO). This led to the 1972 United Nations Conference on Human Environment to tackle the pollution caused by the industrial revolution during the 1960s and 1970s. In this conference, various topics including marine life, protection of resources, environment change, disasters related to nature, and biological change were discussed. This conference resulted in a Declaration on the Human Environment and the establishment of an environmental management body, which later was named United Nations Environment Program (UNEP).

The committee's mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

Headquartered in Nairobi, Kenya and now composed of 193 Member States, they work through their divisions as well as their regional, liaison and out-posted offices and a growing network of collaborating centres of excellence. They also host several environmental conventions, secretariats and inter-agency coordinating bodies.

UNEP categorises their work into seven broad thematic areas: climate change, disasters and conflicts, ecosystem management, environmental governance, chemicals and waste, resource efficiency, and environment under review. In all of their work, they maintain their overarching commitment to sustainability.

They also host the secretariats of many critical multilateral environmental agreements and research bodies, bringing together nations and the environmental community to tackle the greatest challenges of our time.

V. Introduction to The Topic

1. Overview of nuclear power and its significance

It is without a doubt that nuclear power has played a substantial role in the global energy landscape, providing a significant portion of the world's electricity. It is essential for delegates to have a comprehensive understanding of the basics of nuclear power and its significance in addressing the world's energy needs.

Nuclear power involves the controlled release of energy from atomic nuclei, typically through a process called nuclear fission. In nuclear fission, the nucleus of an atom is split into two smaller nuclei, releasing a substantial amount of energy. Uranium and plutonium are the most commonly used materials in nuclear reactors due to their ability to sustain nuclear chain reactions. Delegates should at least be aware of the fundamental processes that occur within a nuclear reactor.

The fact is, that the significance of nuclear power cannot be understated. It has been recognized for its low greenhouse gas emissions, making it a key contributor to global efforts to reduce carbon emissions and combat climate change - one of the many goals of the UNEP committee. It provides a stable and consistent source of energy, ensuring a reliable power supply, especially in densely populated or industrialised areas. Nuclear energy can reduce dependence on fossil fuels and enhance energy security by diversifying the energy mix. Some countries, for example, have used nuclear power to achieve energy independence and reduce their reliance on external energy sources. These factors combined ensured the relatively quick adoption of nuclear power by certain countries, making it of great significance for both the developed and developing world.

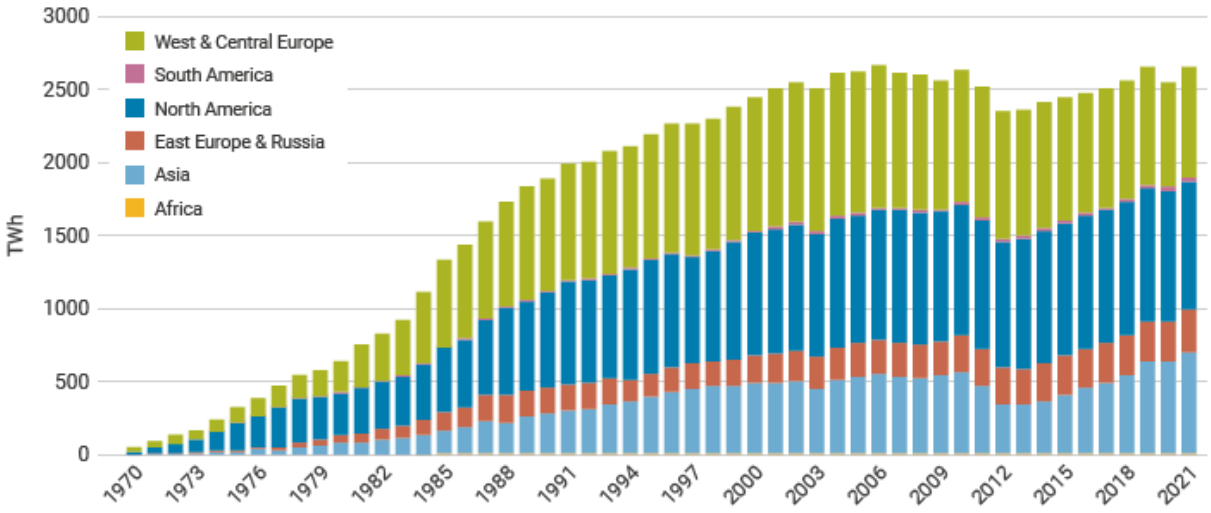

Figure 1: Production of nuclear energy by region

2. Importance of environmental protection in the context of nuclear power

The use of nuclear energy presents an interesting dilemma. On the one hand, nuclear electricity produces no carbon emissions, a major sustainable advantage in a world facing climate change. On the other hand, there is environmental risk of storing spent fuel for thousands or hundreds of thousands of years, societal risk of nuclear proliferation, and the impact of accidental releases of radiation from operating reactors. This underscores the paramount importance of vigilance in regions housing nuclear power plants. When these facilities operate in areas where the governing authority responsible for averting nuclear disasters is unstable, the risk of nuclear proliferation soars to even greater heights.

3. Contamination risks associated with nuclear power plants

The primary risk stems from the potential release of radioactive materials into the environment, which can occur due to accidents, equipment failures, or inadequate safety measures. Such contamination can manifest through radiation leaks, groundwater and soil pollution, and air dispersion of radioactive particles. These incidents not only pose immediate health hazards to plant personnel but also threaten nearby communities and ecosystems. As you may be aware, radiation can also spread further and reach neighbouring countries, such as during the Chernobyl disaster.

4. Safety standards in nuclear power plants

The current standards of safety protocols in place in nuclear power plants are very high, and the risk of nuclear disaster is generally very low. However, in the unfortunate event of a nuclear power plant being endangered by war, several technical issues could potentially go wrong, increasing the risk of a catastrophic nuclear incident. Some of these include:

a. Physical Damage to Reactor Structure

During wartime, the power plant could be a target for direct attacks or collateral damage, leading to physical damage to the reactor structure. This damage could breach the containment, releasing radioactive materials into the environment.

b. Loss of Cooling Systems

The cooling systems in a nuclear power plant are critical for dissipating heat generated during nuclear fission. Damage to cooling systems could result in overheating of the reactor core, potentially leading to a meltdown.

c. Loss of Electrical Power or Inadequate Fuel Supply

Nuclear power plants rely on a stable and uninterrupted supply of electricity to operate safely as well as constant supply of fuel to sustain the fission process. Disruptions to the electrical grid or direct attacks on the plant's electrical infrastructure could lead to a loss of power, affecting the plant's ability to control and cool the reactor. Even if the plant was to shut down its reactors due to safety concerns, it would still need a reliable supply of energy to execute this action effectively and safely.

d. Radiation Leak Due to Nuclear Waste Mismanagement

If a plant's nuclear waste system is disrupted, it could lead to radioactive material contaminating the environment - groundwater, soil, or radiation even reaching the surface.

5. Current situation

Currently one of the most important bodies of the UN, in regards to the promotion of nuclear power as a safe and viable power source, is the International Atomic Energy Agency, or the IAEA. The organisation plays a crucial role in helping manage all aspects of nuclear power worldwide, ranging from matters of safeguards and security in general, to emergency response and disaster relief. It is an integrated agency of the United Nations, though it also offers and partakes in close cooperation with non-member states, and as such, is vital for the purposes of this committee.

The voluntary aid of member states themselves is also not to be understated. The United States, for example, alongside the European Union, have offered assistance to improve safety standards in various countries on numerous occasions, such as during the aftermath of the 2011 Fukushima Daiichi disaster.

Furthermore, the European Union plays a large part in supporting nuclear safety throughout its neighbouring regions, as well as worldwide. In regards to Ukraine, for example, entities such as the EBRD, or the European Bank for Reconstruction and Development, have been actively involved in the decommissioning efforts and closure of the Chernobyl Nuclear Power Plant following the end of the Cold War, and continue to aid other environmentally relevant causes to this day.

Nowadays, nuclear power makes up about 10% of all power produced worldwide. Though dependence differs vastly by country, some states, such as France, are dependent on an electrical grid made up of as much as 70% nuclear-generated electricity. In regards to some other countries, such as Slovakia or Belgium, this figure nears about 50%.

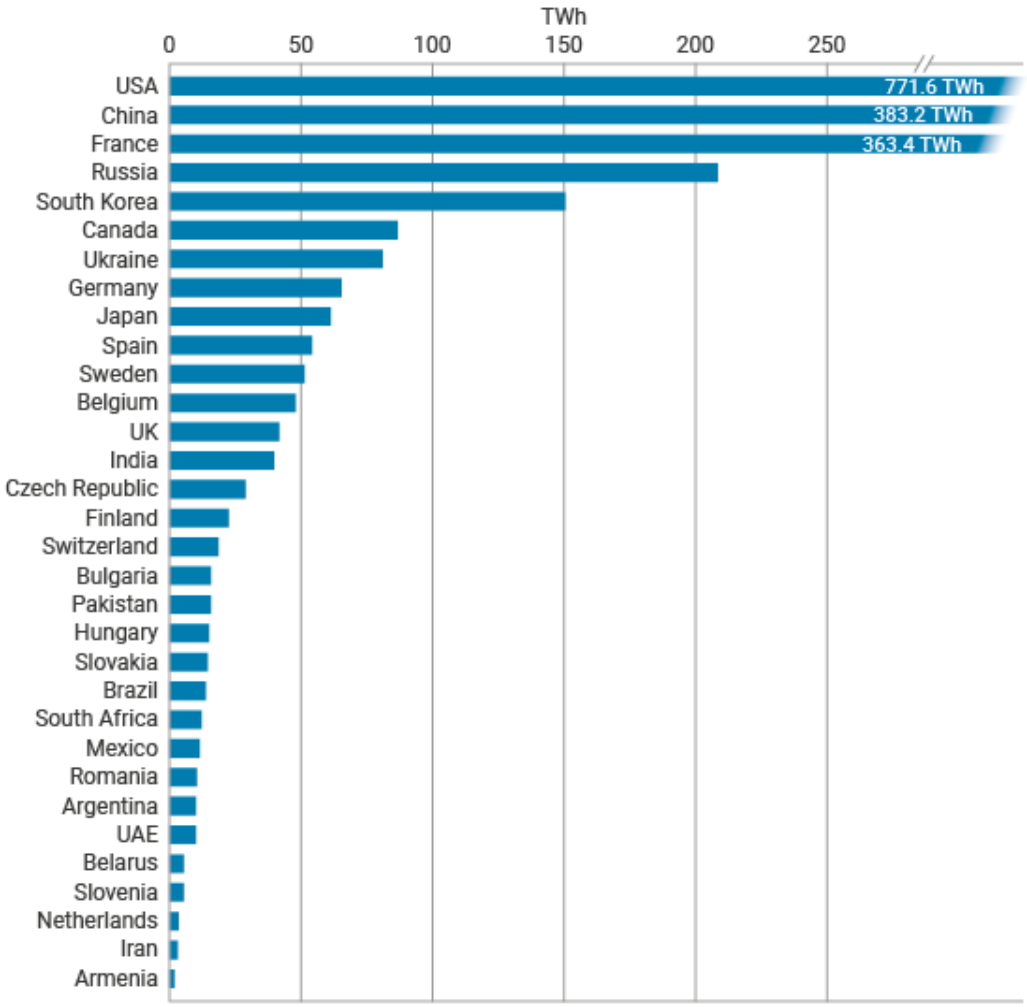

Figure 2: Production of nuclear energy by country

While these countries enjoy the relative safety of their regions, the same does not hold true for many others. It is only for time to tell, as to what is to become of the new nuclear ventures in countries like Bangladesh, Egypt or Turkey, where nuclear power has not yet made its debut. Furthermore, with the increased volatility in Eastern Europe, great care must be taken to prevent another catastrophic scenario, such as that of the Chernobyl disaster. As such, it is of the utmost importance that the United Nations not only ensure a safe nuclear transition that is able to withstand unforeseen volatility of any kind, but to also help prevent any incidents in the current geo-political landscape.

VI. Further Questions

1. What specific measures can countries in volatile regions take to enhance nuclear safety?
2. How can international organisations support these countries in preventing nuclear meltdowns?
3. What strategies can be implemented to minimise the environmental and socio-economic impact of a nuclear meltdown?

VII. Research

Please keep in mind that this document is only a guide to your research of the topic, which should direct you to what is being discussed. The majority of the research, however, should be done by you. When researching, make sure you keep in mind these recommendations:

- Make sure you know basic information about your assigned country/group – leader, population, political system, foreign relations (especially with other members of the committee), etc.
- Check your country's policies and approach to drug trafficking, how it tries to stop it, or does not try to stop it. Find out how effective these measures have proven.
- Find out how the topic specifically affects your country. Does it provide supply or demand? Is your country on the trafficking path?
- It is recommended to familiarize yourself with the policies of other countries in the committee.

VIII. Position Paper

The position paper should be at least a half-page document, but one page is the standard, outlining your country's involvement and stance on the topic. It should cover these points:

- Present your country's approach to the agenda topic.
- Describe your country's past and present actions undertaken regarding the agenda topic, highlighting their effectiveness or lack of it.
- Introduce ideas for the resolution.
- Make sure your position paper, as well as your statements during the debates, correspond with the country's policy.
- Including factual knowledge, such as charts and statistics is highly recommended.

IX. Further Reading and Useful Resources

Safety and security of nuclear power reactors

https://world-nuclear.org/information-library/safety-and-security/safety-of-plants/safety-of-nuclear-power-reactors.aspx

Nuclear power plants and wartime

https://www.polytechnique-insights.com/en/columns/geopolitics/how-to-protect-nuclear-power-plants-in-wartime/

Articles relevant to Russia's Invasion of Ukraine and Ukraine's nuclear power situation

https://apnews.com/article/russia-ukraine-business-power-outages-climate-and-environment-b120715e9426626192f76ef4bfdfc355

https://outrider.org/nuclear-weapons/articles/could-nuclear-power-plants-become-radioactive-weapons

https://www.cnbc.com/2022/08/18/russia-warns-nuclear-plants-radioactive-material-could-cover-europe.html