Committee: Economic and Social Council

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Topic: The Global Promotion of Nuclear Energy: Implications for Safety, Security, and Sustainability

I. INTRODUCTION:

The Economic and Social Council is a United Nations' main organ that coordinates the three dimensions of sustainable development: economic, social, and environmental. ECOSOC is the central platform for forging consensus on ways of working and coordinating efforts to achieve internationally agreed-upon goals. It was founded in 1945, by the Charter of the United Nations, to discuss international economic and social issues and promote sustainable development.

This organ discusses topics like the Sustainable Development Goals, artificial intelligence, science and technology, protection of forests and stopping deforestation, indigenous peoples' rights, youth participation, and economic development.

The Economic and Social Council is made up of 54 members with three-year terms, and it:

- Coordinates the economic and social fields of the UN and its member countries.
- Conducts studies on international affairs in the economic, social, cultural, educational, public health etc.
- Supervises subsidiary committees.
- Promotes sustainable development: economic, social, and environmental growth.
- Promotes and protects human rights

ECOSOC functions rely on promoting a healthier environment, so there are international efforts to promote the use of clean energy. Among them, nuclear energy offers various benefits, including regulating the amount of energy produced (in comparison to wind or solar energy), generating high amounts of energy, and being economically viable. Nonetheless, to expand it to other nations, three aspects must be considered: safety, security, and sustainability. The IAEA currently assists member states interested in developing this form of energy with the safety measures it needs: how to handle radioactive waste and uranium, provides further education to scientists and researchers in the area, creates a plan for

the system, and ensures that citizens keep on trusting this form of energy, as a small mistake can provoke devastating consequences.

When handling such precious yet dangerous materials, there should be a secure system against theft, sabotage, or even terrorism in nations where security is a problem. The IAEA highlights that there should be a graded approach to security, which means that not every nuclear facility requires the same level of protection; it must be proportional to the risk. For a further promotion of this form of energy, there must be a way to make it sustainable, as the NEA highly recommends using the SDGs to help this form of energy come to a reality. First of all, environmental matters like managing the mining of uranium, minimizing and handling radioactive waste, and protecting ecosystems are necessities to cover for a country interested in having nuclear facilities. Additionally, it must be a cost-effective system that does not entail a loss of economic resources. Finally, it is important to secure in the long term for politics and regulations to keep on approving this form of energy.

The UN has been making efforts to combat climate change and pollution for a sustainable world. That is why alternative, renewable, and clean forms of energy are key to reducing the emission of pollutant gases and contributing to a healthy Earth. Various nations are looking forward to diversifying their forms of energy, for which nuclear energy is a key factor to take into account. This form of energy is different from others: it can control the production of energy, it is highly resistant to weather, and it produces large amounts of electricity with the lowest amount of waste. Nonetheless, the consequences of a small mistake can produce catastrophic disasters (such as the Chernobyl incident in 1986), which is why it has to be handled and promoted with the right measures and knowledge.

II. HISTORY OF THE CONFLICT

The recognition of nuclear power started with the nuclear race between the Russian Federation and the United States of America during the Second World War and later on with the bombings of the State of Japan. A few years later, at the end of WW2, specifically in 1950, in the city of Obinsk in the Russian Federation, the recently discovered technology for nuclear bombs started to be used as a form of producing electrical energy.

The problem stands in that while using nuclear energy to help climate change, citizens must know that its use must be limited, which requires a reduction in carbon emissions. However, the transition from

fossil fuels to nuclear energy has been a significant and challenging change, posing substantial challenges in developing new lifestyles.

The first operation of nuclear energy in the 1950s, and with major incidents such as the Three Mile Island Generating Station in Pennsylvania in 1979, many conflicts have started because of radiation, human error, mechanical failure, or natural hazards such as hurricanes, floods, and earthquakes. This means that global promotion has been difficult because of several accidents while using nuclear energy.

The conflict has escalated since the 1986 accident at the Chernobyl plant in Ukraine. An accident that destroyed Unit 4 of the nuclear reactors by two explosions. Radiation contamination reached all the way. The government solution was to create an exclusion zone, so approximately 350,000 people had to move permanently away from the site.

Some important dates about this conflict are:

- In 1895, the discovery of X-rays by Wilhelm Roentgen made scientists start studying radioactivity.
- Secondly, in 1951, we had the first electricity from nuclear energy in Idaho, USA. This event was crucial because it was the starting point to know that nuclear energy has potential as a clean and sustainable power source.
- Then in 1954, the USA enacted the Atomic Energy Act, the first law to allow civilian and commercial use of nuclear energy, allowing sustainable energy development under regulatory oversight.
- In 1957, it was the first full-scale nuclear plant at Shippingport, USA. This event marked the beginning of commercial nuclear power, demonstrating the huge nuclear energy in cities while highlighting long-term safety and waste disposal concerns.
- The creation of the International Atomic Energy Agency was founded in 1957, being a key global organization to monitor nuclear programs, aiming for security and promoting a safer and peaceful use of nuclear energy use.
- Then, in 1979, the Three Mile Island accident happened. This event significantly influenced the world in terms of nuclear safety protocols, public transparency, and risk management.
- Lastly, the Chernobyl disaster in 1986 was a catastrophic explosion that deeply impacted public trust. After the disaster, major safety reforms were applied, as well as a reshaping of global nuclear regulation and sustainability practices.

Also, the problem affects sustainability by enhancing health, educational standards, and general well-being through the consumption of energy. It is a complex situation, as it produces very low carbon emissions, but concerns remain regarding radioactive waste, safety, and security. Also, it reduces air pollution because of the reduction of fossil fuels. By saying concrete dates, in 1939, nuclear fission was discovered, leading to exploration and investigations that gave us a new perspective on energy. In 1951, electricity was first generated from nuclear power, using the Experimental Breeder Reactor-1. And throughout the 1950s, the first commercial nuclear plants began to operate.

With an emphasis on the Chernobyl and Fukushima accidents, operational safety, possible terrorist attacks, waste disposal, and environmental justice, several social conflicts have emerged because of the promotion of nuclear energy.

- **Anti-Nuclear movement:** The most notable movement is probably the Anti–Nuclear movement, which opposes various nuclear technologies as a response to these concerns.
- **Campaign for Nuclear Disarmament:** A campaign created by the United Kingdom that advocates for the disarmament of nuclear weapons.
- **Friends of the Earth:** A non-governmental organization that promotes environmental sustainability.
- **Greenpeace:** A network of various organizations that promote sustainability through activism.
- **International Physicians for the Prevention of Nuclear War:** A group of medical groups of various countries that supports the elimination of nuclear weapons.
- **Peace Action:** An organization that advocates for the elimination of nuclear armament.
- **Seneca Women's Encampment for a Future of Peace and Justice:** A women-only peace camp that protested against the delivery of nuclear missiles to Europe.
- **Nuclear Information and Resource Service:** A non-profit anti-nuclear group that opposes nuclear energy and provides information related to it.

Moreover, the citizens' opinion on the conflict is varied and complex and varies by region. Nevertheless, there has been an increase in support for the application of nuclear energy in recent years. For instance, China is the country that supports nuclear energy the most, Russia falls in second place, followed by the UAE. The countries that support nuclear energy the most are Brazil, Japan, and Spain. On the other hand, the countries that don't support this initiative are Australia, Austria, and Denmark.

There have been several protests regarding the conflict. Nuclear protests started to take place in the early 1960s. The most important protests include:

- **July 1977, Bilbao, Spain.** 200,000 people in attendance. Protest against nuclear power.
- **New York City, 1979:** As a response to the Three Mile Island accident. 200,000 people in attendance.
- **West of Hamburg, 1981:** Protest against the Brokdorf Nuclear Power Plant west of Hamburg: Germany's largest anti-nuclear power plant. 100,000 people took part, with 10,000 police officers.
- **New York City, 12 June 1982:** The largest protest, one million people demonstrated in New York City against nuclear weapons
- **West Berlin, 1983:** 600,000 participants
- **Rome, May 1986:** Following the Chernobyl disaster, an estimated 150,000 to 200,000 people marched in Rome to protest against the Italian nuclear program

Another important point is human rights. While mostly minor, there have been significant human rights violations regarding the use of nuclear energy. The rights of public health and safety, and the displacement and long-term health consequences for affected populations, can be viewed as human rights violations

- **Public health:** Previous accidents like Chernobyl and Fukushima have demonstrated the severe risks nuclear energy accidents carry. Numerous issues arise, such as radiation exposure, environmental contamination, evacuations, trauma, etc.
- **Radioactive waste and environmental impacts:** Nuclear power plants release harmful radioactive waste that does not decompose for thousands of years. Additionally, a risk of leaks and accidents remains, with extensive effects on the environment and health.

In addition, over 30 countries are affected by nuclear energy. These countries include production ratio, capacity, reliance, contribution, and emerging power.

- **Main producers:** United States, France, China, Russia, and South Korea
- **Heavy reliance:** France, Ukraine, Slovakia, and Hungary
- **Significant contributors:** Belgium, Sweden, Switzerland, and the UK
- **Emerging nuclear energy countries:** Argentina, Brazil, Mexico, Iran, South Africa, and North Korea

Furthermore, the United States of America, the People's Republic of China, the French Republic, and the Russian Federation lead the production of energy via nuclear facilities. The Kingdom of Belgium is highly dependent on nuclear energy; nonetheless, it had to close a nuclear reactor alongside Taiwan.

III. CURRENT HAPPENINGS

Nuclear energy, a seemingly sustainable and harmless way of generating splurges of energy with extremely low carbon emissions when compared to other energy sources, supports about 10% of the energy of the world. However, nuclear energy raises concerns regarding the disastrous possibilities of accidents, waste management, and security threats. The current situation of the topic is simple.

1. **Global expansion of nuclear energy:** Many countries in the world are pursuing nuclear power as a form of generating massive amounts of energy that meet the demands of a rising population and to reduce dependence on fossil fuels.
2. **The race for low-carbon energy:** Transitioning to low-carbon energy is a top priority for many governments and industries around the world. Nuclear energy is a top contender to solve this issue.

Also, there have been numerous organizations that have brought aid to the effects of this conflict, with the primary goal being to regulate and ensure the sustainable and peaceful applications of nuclear energy.

1. **International Atomic Energy Agency:** An Intergovernmental organization that seeks to promote the peaceful use of nuclear energy and to inhibit its use for any military purpose.
2. **American Nuclear Society:** An International non-profit organization of scientists, engineers, and professionals that promotes the field of nuclear energy.
3. **Institute of Nuclear Materials Management:** An International technical and professional organization that works to support the safe handling and practice of nuclear material
4. **Nuclear Energy Institute:** Nuclear industry trade organization in the United States.
5. **World Nuclear Association:** An International organization that promotes nuclear power and supports the companies that comprise the global nuclear industry

Furthermore, approximately 10% of the world's electricity is generated by nuclear power. Additionally, some countries are significantly reliant on nuclear energy, like France. Therefore, the approximate estimate of the population that relies on nuclear energy, ranked in descending order, is the following: United States, Slovakia, France, Ukraine, Spain.

Nuclear power offers both social and economic benefits, but it can also give us negative consequences, even though we are using it correctly. By the economic impact and positive effects, we could mention the reduced electricity cost compared to the fossil fuel cost and the energy independence. On the other hand, the negative effects can be offset by high initial cost, making plants and all the

production harm investors, and also the potential for accidents like infrastructure damage or health impacts. Social effects are the reduction of air pollution and the reliable energy source, by leading to the negative part, the safety concerns and social disruption can be seen.

Countries that have used or are using nuclear power have cared about concerns that many people have nowadays. By giving positive examples, medical applications can be one of the economic benefits by providing jobs. Like in the United States, the nuclear industry supports nearly half a million jobs. However, on the negative side, health insurance has been a crucial yet challenging concern to address.

The international community has various sanctions to promote safety and the proper use of technological and economic practices. Measures that can be seen are the trade restrictions or financial sanctions. All these are implemented for international security. As an example, the use of nuclear energy in the Republic of Iran has imposed several sanctions for its incorrect use of its nuclear program. Organizations like the IAEA or the European Union are the ones that control these sanctions.

Also, as seen in earlier incidents such as the Chernobyl explosion or the Three Mile Island incident, a misadministration of security or safety can lead to catastrophic consequences that affect thousands, if not millions, of people. For example, with the Chernobyl explosion, the main source of water for Europe was almost contaminated, which could've caused almost half of Europe impossible to live in. Nuclear energy should be used and promoted to the vast majority of the world. It should be a way to diversify the energy consumed by a country, not for it to depend totally on it. This can be done by following the standards and frameworks set by the IAEA and asking for its mentorship to run a nuclear plant. Also, various countries can provide others with electricity coming from nuclear sources.

A study made by World Nuclear News in June 2025 proves that nuclear energy contributes 251 billion euros to the European Union's GDP. It is estimated that during May 2025, nuclear energy supported around 1.1 million jobs across the European Union. During June 2025, the United Kingdom of Great Britain and Northern Ireland designated 14.2 billion pounds for the nuclear reactor Sizewell C, expected to create 10,000 jobs and provide power to 6 million households.

There have been countries that have had economic instability; for example, the United States of America has had problems with reactors such as Vogtle Units 3 & 4, in which the cost rose to 30 billion dollars from 14 billion dollars, which was originally expected. Due to these overruns, Westinghouse declared bankruptcy. According to the IAEA's latest report, it indicates that world nuclear capacity will increase 2.5 times the current capacity by 2050. Nowadays, 31 countries operate power plants, with 419

reactors in operation. So we can conclude that by 2050, the use of nuclear energy will be bigger, creating and promoting a safer world because of the knowledge, practices, and experiments.

Lastly, the G5 approved and created a law to ban Iran from having any access to nuclear energy to prevent it from creating and/or having access to any form of atomic missiles. The IAEA has prohibited multiple times the nuclear plants that Iran builds, due to previous incidents of Iran attempting to develop nuclear weaponry.

IV. BLOCK ANALYSIS

United States of America: The United States of America is the world's largest producer of nuclear power. The United States houses 94 operable reactors, 0 under construction, and 41 that have shut down. The total generation of nuclear-powered electricity in 2022 was 4502 TWh. The state has created the Inflation Reduction Act, which provides support for nuclear development through investment and tax incentives. Moreover, the United States has created nuclear energy regulatory bodies, including the Nuclear Regulatory Commission and the Nuclear Energy Institute. Numerous companies, operators, and service and technology providers promote the safe use of nuclear energy in the United States.

French Republic: The French Republic is the second-largest nuclear energy producer. About 70% of its electricity is produced from nuclear energy. There are currently 57 operable reactors, 0 under construction, and 14 shut down. The French Republic is the founder of the French Alternative Energies and Atomic Energy Commission, which leads in maintaining a positive outlook on nuclear energy and ensuring its safety.

Russian Federation: There are currently 36 nuclear reactors in operation, 7 under construction, and 11 that have stopped functioning. The total generation of electricity in 2022 was 1151.2 TWh. Since 2001, Russia has been leading the project on Innovative Nuclear Reactors and Fuel Cycles (INPRO) by the IAEA. In 2006, this nation joined the Generation IV International Forum, a secretariat from the NEA (Nuclear Energy Agency).
Rosatom is a Russian organization that distributes energy to the Russian Federation and other nations. It is estimated that Rosatom generated $16 billion in foreign revenue.

People's Republic of China: Considered a global leader in the expansion of nuclear energy safety. China operates around 57 to 59 active reactors, aiming to have over 65 gigawatts of nuclear capacity by the end

of 2025. Now they're heavily investing in new nuclear technology, such as the Hualong One reactor and the CAP1000, highlighting security, safety, and sustainability. The International Atomic Energy Agency has recognized this country by implementing measures and regulations for this rapid nuclear expansion.

Republic of India: Keep targeting the safety of citizens. At the moment, they have 25 commercial nuclear reactors operating with a capacity of 8.88 gigawatts. As they want to expand, there are targets to increase nuclear capacity to over 22 gigawatts by 2032 and reach 100 gigawatts of nuclear power by 2047. They are and will remain with every protocol, as the emissions and radiation these procedures may have. Also, target to incorporate advanced technologies like heavy water reactors and imported reactor designs like VVERs (known as WWERs, which stands for water-water energy reactor).

State of Japan: Following the 2011 Fukushima incident, Japan implemented several protocols in its nuclear reactors. Now there are 33 nuclear reactors, with 14 having resumed after the 2011 disaster. Energy policies have increased the sharing of nuclear power in electricity generation, seen as relevant for energy security and the goals stated by 2050, like meeting carbon neutrality. Japan has been watched by the Nuclear Regulation Authority for the implementation of new regulations.

Federal Republic of Germany: The Federal Republic of Germany used to be a competitive producer of nuclear energy, up until mid-April 2023, when all reactors would have officially shut down as a result of a new government in 2009. There are 0 operable reactors, 0 under construction, and 36 shut down. The key nuclear energy organizations in Germany include KernD and Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz, among others. However, most organizations are now in decommissioning.

Democratic People's Republic of Korea: Concentrated on weapons development rather than peaceful nuclear energy use. They keep their production of warheads, so currently they are expanding their nuclear arsenal to include 50 warheads, and in a couple of years, they could have around 90. For the production, they are on a new uranium enrichment facility at the Yongbyon nuclear reactor, which increases weapons-grade material. The International Atomic Energy Agency currently monitors developments but lacks effective access due to North Korea's isolation

Dominion of Canada: This country is one of the principal countries leading the development of SMRs (Small Modular Reactors). This nation possesses 17 nuclear reactors, representing 15% of its total electricity. In February of 2023, the Dominion of Canada launched the program "Enabling Small Nuclear

Reactor" with an initial assignment of 29.6 million Canadian dollars. The government has been suggesting new policies to facilitate the commercialization and regularization of SMRs, which include working closely with the CNSC (Canadian Nuclear Safety Commission). The nation cooperates with the IAEA for the construction of its nuclear plants. It currently accepts refugees, as for 2024, it had around 173,000 accepted refugees.

United Arab Emirates: The UAE started building its first nuclear reactor in 2020, located in a nuclear plant in Barakah with 4 reactors. Despite this progress, 70% of the UAE's electricity still comes from fossil fuels such as gas and coal. The Barakah project has an estimated cost of 20 billion dollars to date. The government strongly supports the expansion of the nuclear park in Barakah in consequence of the rising electricity demand and to develop the diversification of energy sources. The UAE works with KEPCO (a South Korean business) for the import of nuclear reactors to the country. Also, the IAEA supports the development of this energy safely and securely. This nation does not have refugee support like Europe or Canada, since it is not part of the 1951 convention.

United Kingdom of Great Britain and Northern Ireland: The United Kingdom's nuclear reactors are about to be retired by the end of the decade, with the hope of replacing them with a new generation. There are 9 operable reactors, 2 under construction, and 36 shut down. The UK is looking forward to ensuring the safety of its nuclear energy sector by leading the Office for Nuclear Regulation, the Nuclear Energy Association, and the UK Atomic Energy Authority.

Federative Republic of Brazil: This nation currently has in operation 2 nuclear reactors in operation: Angra 1 and Angra 2. Also, the government started construction of the Angra 3, nevertheless its construction remains without any progress and it is to the debate whether the reactor should be finalized or not. Meanwhile, the country looks forward to the production of uranium and its exportation to other nations. The project of Angra 3 began in the 1980's, and until this date, it has had an investment of around 2 million dollars. Currently, this nation is working in collaboration with Russia and China to develop new ways of commercialization for uranium. Furthermore, organizations such as Rosatom or CGN had been helping Brazil with its uranium commercialization. This country does accept refugees, working with ACNUR and UNHCR.

Republic of South Africa: This nation has 2 nuclear plants in Koeberg, making up 5% of its electricity, and they started operation in 1984 and 1985, respectively. South African electricity is unreliable with constant shutdowns, making it a crucial necessity to further develop energy. The Republic of South Africa has collaborated with the IAEA to maintain security and safety in the nuclear plants. This nation registered around 280,000 refugees in 2024.

Furthermore, nuclear energy is undoubtedly the new frontier for sustainable energy development. Many countries support nuclear energy for various reasons; the key reasons include combating climate change and achieving a reliable source of energy. In order to achieve a fundamental understanding of whether a country has attained nuclear power and/or supports it, a comprehensive list will be presented. In 2023, nuclear plants supplied 2602 TWh of electricity, up from 2545 TWh in 2022. Nearly all continents are included in these metrics. Nuclear power also constituted 9% of energy production from 1970 to 2023.

The 10 highest uses of nuclear energy, with characteristics (ranked per energy generation in GWh)

Country	**Total Reactors**	**Generation (GWh)**
United States	94 in use, 3 being built	778,186
China	58 in use, 30 being built	406,484
France	57 in use, 0 being built	323,773
Russia	36 in use, 7 being built	203,957
South Korea	26 in use, 2 being built	171,640
Canada	17 in use, 0 being built	83,465
Ukraine	15 in use, 2 being built	81,126
Japan	14 in use, 2 being built	77,539
Spain	7 in use, 0 being built	54,371
Sweden	6 in use, 0 being built	46,646

Furthermore, the most affected countries are the following.

1. **France:** Is the most reliant country on nuclear power. With about 70% of its total electricity being nuclear-generated, not only is its energy at stake, but this issue can directly affect the French economy and the population's living standards.
2. **Slovakia:** Slovakia is the second contender in nuclear power reliance. About 60% of its energy is nuclear-generated. Considering its high nuclear capacity, Slovakia is known to be able to store large amounts of nuclear energy
3. **Ukraine:** About 55% of its energy is nuclear-generated. Additionally, Ukraine has a significantly larger capacity
4. **Hungary:** About 50% of its energy is nuclear-generated.
5. **Finland:** About 40% of its energy is nuclear-generated
6. **Belgium:** About 40% of its energy is nuclear-generated
7. **Bulgaria:** About 40% of its energy is nuclear-generated
8. **Czech Republic:** About 40% of its energy is nuclear-generated
9. **Slovenia:** About 35% of its energy is nuclear-generated
10. **Switzerland:** About 30% of its energy is nuclear-generated

V. UNITED NATIONS ACTIONS

The United Nations maintains active efforts to resolve the issue. Through the International Atomic Energy Agency, the United Nations has been committed to managing nuclear energy, promoting its peaceful use, while also working to prevent its misuse for military purposes. The United Nations has done the following regarding resolving this issue:

1. **Treaty on the Non-Proliferation of Nuclear Weapons (NPT):** Since 1968, the IAEA has conducted regular inspections to ensure nuclear materials are only used for peaceful purposes.
2. **UN Conference on Disarmament:** This is a multilateral negotiating forum on disarmament, produced by the Comprehensive Nuclear-Test-Ban Treaty. This has been signed by 187 countries and ratified by 177
3. **UN Offices on disarmament of nuclear power:** This is an effort to promote nuclear disarmament and non-proliferation. Additionally, the Committee on the Peaceful Uses of Outer Space emphasizes the use of nuclear energy in outer space.

Also, while this topic has not been explicitly discussed by ECOSOC, it has been discussed closely related topics regarding sustainable development, energy infrastructure, etc. These are the involvements of ECOSOC closely related to the topic:

1. **Sustainable development through the 2030 Sustainable Development Goals:** ECOSOC plays a high managerial role in the SDG 7: Affordable and Clean Energy and SDG 13: Climate Action. These SDGs are closely related to the use of nuclear energy.
2. **STI Forums:** The Science, Technology, and Innovation Forums actively discuss the importance of advanced technologies and world development, and innovations. On 1-4 July 201, the IAEA participated in the innovation fair that took place on the margins of the Annual Ministerial Review meeting.
3. **Sustainable Energy for All initiative:** Nuclear energy conversations have been spotted to appear on the SE4All as low-carbon emission energy topics.

Now, several organizations oversees safety and security in nuclear power.

- United Nations
    - **General Assembly:** The General Assembly has discussed topics related to nuclear weapons and the peaceful use of nuclear power. Specifically in its use, the International Atomic Energy Agency has played a key role in communication. However, more concretely, GA has addressed atomic safety concerns, particularly in conflict zones, and has called for international cooperation in these areas.
    - **Security Council:** The Security Council, as well as the General Assembly, has imposed sanctions according to the IAEA's restrictions. They are more focused on the peace and safety that nuclear energy must have.
    - **United Nations Human Rights Office:** Multiple actions and restrictions the United Nations Human Rights Office has made regarding this topic. The legacy of nuclear testing is when they give attention to the long-term human rights consequences of nuclear testing, which is according to the effects radiation can have on people. Some of them are the rights to life, health, food, housing, or water.
    - **United Nations Office for the Coordination of Humanitarian Affairs:** OCHA works with the IAEA, the WHO, and the FAO, which, working together, they've reached successful help towards the safety and health after accidents like the Chernobyl incident.
    - **United Nations Scientific Committee on the Effects of Atomic Radiation:** It's related to nuclear energy, thanks to the assessment of radiation exposure. It evaluates the

radiation from natural sources, medical uses, and nuclear power generation. Provides scientific reports that offer comprehensive information on protection standards.

- **United Nations Environment Programme:** UNEP's objective is to protect the environment while using nuclear energy. They target that citizens know the correct use of the power. By its alliances with other organizations, we have the IAEA, which provides monitoring and coordinates the scientific data among member states.

- IGO's
  - **European Union:** It has various initiatives to promote nuclear energy, such as the Euratom Research and Training Programme. The European Union also takes part in international initiatives like ITER.
  - **African Union:** The AU has created the African Commission on Nuclear Energy has been working alongside the World Nuclear Association to promote the use of nuclear energy and support its peaceful development.
  - **OECD:** Alongside the World Nuclear Association, the OECD conducts an annual report called Nuclear Energy Data, in which it registers every nuclear concern regarding plants and weaponry.
  - **European Civil Protection and Humanitarian Aid Operations:** Promotes safety measures among European countries, such as protection against radiation and ionization, and promotes the technology used for Small Modular Reactors.
  - **World Nuclear Association:** It collects data for the report Nuclear Energy Data, which is later presented by the OECD.
  - **International Energy Agency:** The Summit on the Future of Energy Security is conducted alongside the UK Secretary of State to promote frameworks for nuclear energy security and safety to all of Europe

- NGOS
  - **Greenpeace:**
    - **Statements:** Greenpeace is strongly unsupportive of nuclear energy in all of its forms. The most relevant statement by Greenpeace involves Greenpeace stating that nuclear energy has no place in a safe, clean, and sustainable future. Greenpeace believes nuclear energy is both expensive and dangerous, and the pollution it generates is unacceptable.

- **Actions:** Greenpeace has taken clear actions to oppose nuclear energy, involving highlighting its risks and dangers, exemplifying accidents like Chernobyl and Fukushima, arguing it brings economic concerns, emphasizing environmental impact, and establishing that true sustainable energy is powered by solar, wind, and geothermal.

- **Institute for Energy and Environmental Research:**
    - **Statements:** The IEER is critical of nuclear power, concerning its safety, environmental impact, and connection to nuclear weapons. The IEER believes nuclear power should be phased out as quickly as possible, emphasizing a clean transition to 100% renewable energy sources like solar, wind, geothermal, etc. The IEER has also pointed out numerous safety concerns and environmental impact, and through publications, workshops, and research, the IEER provides educational resources on nuclear issues.
    - **Actions:** The main actions the IEER has executed include the analysis of nuclear weapons and production, nuclear waste management, nuclear fuel cycle, renewable energy alternatives, and nuclear proliferation.
- **Friends of the Earth International:**
    - **Statements:** Friends of the Earth International is strongly opposed to nuclear energy, believing it is an expensive, dangerous, and unsustainable solution to climate change. FotEI believes nuclear energy is not a viable solution to global warming, raising numerous economic and public safety concerns, and focusing on renewable energy.
    - **Actions:** The main actions Friends of the Earth is actively pursuing is transitioning to fully renewable energy sources and energy efficiency. For instance, Friends of the Earth is actively campaigning to shut down existing reactors, prevent new construction, promote alternatives, and raise awareness.
- **Energy Watch Group:**
    - **Statements:** The EWG is opposed to nuclear energy. It argues that nuclear power's contribution to mitigating climate change is currently limited, and that a substantial expansion of nuclear energy is not viable due to limited resources
    - **Actions:** The EWG plays a key role in monitoring nuclear energy, analyzing energy security, and promoting transparency

- **World Wide Fund for Nature:**
    - The WWF does not support the development of nuclear power plants. It believes it cannot be deployed quickly or in a viable way enough to meet low-carbon emission standards
- **The Climate Reality Project:**
    - The CRP believes the role of nuclear energy is possible for reducing emissions, highlighting potential risks.
- **Global Zero:**
    - Global Zero has not specifically stated whether it is against or in favor of nuclear energy, but its primary focus is to eradicate nuclear weapons.

VI. KEY POINTS

- **Nuclear energy:** Is the energy stored in the bonds that hold the nucleus of an atom together, so when this bond breaks, the energy is released. It is used as a clean energy source because it has very low gas emissions, which makes it a sustainable and low-carbon electricity generation.
- **Global promotion:** Refers to the coordinated efforts and strategies used to promote products, services, or ideas around the world. It needs a good use of marketing messages worldwide.
- **Sustainable development:** A balance between economic growth, environmental protection, and social inclusion to reach long-term well-being for people and the planet.
- **Nuclear safety:** The achievement of proper operating conditions, prevention of accidents, and mitigation of accident consequences, resulting in protection of workers, the public, and the environment from undue radiation hazards. (IAEA, n.d.)
- **Clean energy**: Energy that comes from renewable, zero-emission sources that do not pollute the atmosphere when used, as well as energy saved by energy efficiency measures. (DOE, 2022)
- **Environmental impact:** Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products, or services. (UNEP, 2002)
- **Nuclear fuel:** Material that can be 'burned' in a nuclear reactor to sustain a chain reaction and produce energy. The most common fuels are uranium and plutonium. (WNA, 2021)
- **Cooperation:** The state of two or more parties or entities working together to achieve a goal. Cooperation can also partially involve coordination, as the parties in question must organize.
- Strategic partners: Strategic Partners refer to a group of partnering entities or individuals that are strategic in nature, often being suitable for certain situations.

- **Energy innovation:** Energy Innovation is a concept that involves active progress of the energy sector, including recreation, remodeling, and upgrading older models. It is a modern method to upscale and refine energy models.

VII. LEADING QUESTIONS:

- How can developed countries have secure access to nuclear technologies without jeopardizing regional stability?
- What are the environmental challenges related to nuclear waste, and how could they be managed in the long term?
- Which measures could be adopted to aim for cooperation between countries with high nuclear development and those that target the start of nuclear programs?
- Should politically unstable nations be allowed to have nuclear plants, given the insecurity and high risk of attack?
- In which way can countries guarantee the preservation of ecosystems and the security of indigenous people when there are uranium mines around the area?
- At what point would there be enough technology to reduce nuclear waste and therefore make nuclear reactors safer?
- What are the alternatives to high-energy production, as nuclear energy is considered unsafe?
- Would it be beneficial for developing nations to create nuclear reactors to increase their energy production and consequently improve their economy?

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