



International Atomic  
Energy Agency (IAEA)  
Chair Letter

## DEAR DELEGATES,

Welcome to this year's International Atomic Energy Agency session for CNYMUN 2025! We believe that within debates over nuclear technology, it is important to examine the recurrent problems that experience new developments. We hope to foster important discussions and connections between delegates and bring you an authentic Model UN experience. That said, we're excited to discuss solutions for the topics we present below. The chairs of this committee are Bennett Terchowicz and Griffin Pienkowski. The rapporteur for this committee is Eve Winter.

## ABOUT THE CHAIRS

Bennett is a Senior at Fayetteville-Manlius High School. This is his fourth year of MUN and his second year as chair. Outside of MUN, he loves to train with his crew team all year round. He volunteers at the Manlius Fire Department during the summer and is a part of their Explorers program. He also works at Onondaga Golf & Country Club and TJ Maxx because he loves having money to feed his video game addiction.

Griffin is a Junior at Fayetteville-Manlius High School. This is his third year of MUN and his first year as a chair. Outside of MUN, you can find him playing baseball or football. Outside of those things Griffin enjoys hanging out with friends and fishing with family.

Eve is a Junior at Fayetteville-Manlius High School. This is her third year of MUN and first year as a rapporteur. Outside of MUN, you can find Eve on the soccer field, and when she's not playing soccer, she rows in the spring. She likes art and music and is in NAHS. If she isn't doing those things, you can find her outside, and if you catch her in the winter, hit her up to go skiing.

## ABOUT THE COMMITTEE

Your topics for the International Atomic Energy Agency at CNYMUN 2025 will be:

1. Promoting Nuclear Transparency and Disarmament
2. The Safe Usage of Nuclear Technology in Developing States

The International Atomic Energy Agency (IAEA) is a committee within the UN that works primarily to promote the peaceful use of nuclear energy and prevent nuclear proliferation.<sup>1</sup> It was established in 1957 and continues to implement guidelines, provide technical assistance, and run regular inspections to ensure nuclear safety worldwide.<sup>2</sup> The IAEA also supports research and technological development, along with the use of nuclear science in medicine and agriculture.<sup>3</sup> Overall, it plays an important role in maintaining global nuclear standards and ensuring that countries comply with nuclear treaties and agreements.

## ABOUT THE CONFERENCE

Following CNYMUN tradition, the debate will be conducted in Harvard style, meaning delegates will not be allowed to use pre-written clauses and/or resolutions during committee. Doing so will make a delegate ineligible for awards.

To be eligible for awards, delegates must submit a 1-2 page position paper via email that addresses both topics before the start of the conference. Position papers should outline the stance of your delegation, and display an understanding of the topics, demonstrating research and knowledge of your organization's goals. When deciding on awards, the chairs will look favorably upon delegates who have put significant effort towards research/preparation, collaborate with other delegates during committee sessions, stay within their nation's policies, and get their voice heard without being overbearing.

Furthermore, for the first time, CNYMUN is implementing a tiered structure of committees to ensure similar experience levels for all committee members. The International Atomic Energy Agency is designated as an intermediate committee, and we would like the debate to reflect that. In turn, the 'Best New Delegate' award **will not be** offered to any delegates in this committee.

Please share position papers before the conference begins. This committee will most likely feature a

---

<sup>1</sup> "Statute." IAEA, IAEA, 8 June 2016, [www.iaea.org/about/overview/statute](http://www.iaea.org/about/overview/statute).

<sup>2</sup> Ibid.

<sup>3</sup> (IAEA, 2021).

mini-crisis. The procedure for Mini-Crisis events can be found on [cnymun.org](http://cnymun.org). Our emails are listed below for you to contact your chairs about any research, position papers, committee inquiries, or other questions. We also encourage you to scan our lengthy delegate preparation resources and award structure on [www.cnymun.org](http://www.cnymun.org). We wish you luck and look forward to what CNYMUN 2025 will bring!

Bennett Terchowitz  
[25bterchowitz@fmschools.org](mailto:25bterchowitz@fmschools.org)

Griffin Pienkowski  
[26gpienkowski@fmschools.org](mailto:26gpienkowski@fmschools.org)

## TOPIC 1: PROMOTING NUCLEAR TRANSPARENCY AND DISARMAMENT

Nuclear technology is a huge energy source that can be helpful when correctly utilized. Issues occur when this power is not efficiently managed and in an organized fashion. Nuclear disarmament prevents possibilities of conflict regarding nuclear warfare and also minimizes the horrific effects that radiation has on the environment as well as on human health. By reducing this risk with increased nuclear transparency across nations, countries can use nuclear energy safely without causing conflict.

Nuclear Transparency and Disarmament has started to gain international attention over the past few decades as nuclear warfare has recently become more of a reality. Nuclear disarmament is defined as the process of reducing or eliminating the number of nuclear weapons in the world, with the goal of eliminating nuclear weapons entirely. The word *denuclearization* can also be used to describe the process<sup>4</sup>. Many countries have started the disarmament process in recent years and have also taken the necessary steps to prove their disarmament. Many nations feel obligated to be open and transparent about their disarmament in order to improve confidence building between those groups of countries and contribute to risk reduction. Disarmament verification also represents a new avenue towards nuclear disarmament. Countries have also shut down many dangerous nuclear factories that could produce other dangers such as nuclear waste or major nuclear accidents which is another considerable step in the process. Disarmament is considered to be crucial as it can significantly reduce the risk of a catastrophic nuclear war. Nuclear war has the potential to result in a mass casualty event *as well as cause for* environmental destruction. This is why the elimination of nuclear weaponry is seen as necessary in order to safeguard global peace and security as well as human life itself.

The IAEA has released multiple outlines of what

---

<sup>4</sup> Nations, United. "What Is Nuclear Disarmament? | United Nations." *United Nations*, 2024, [www.un.org/en/peace-and-security/what-nuclear-disarmament](http://www.un.org/en/peace-and-security/what-nuclear-disarmament). Accessed 10 Oct. 2024.

nuclear disarmament should look like, as seen in an article detailing proper South African disarmament<sup>5</sup>. The government of South Africa has promoted nuclear transparency to the greatest extent, going so far as to provide IAEA with full access to any locations associated with nuclear weaponry, and encourage extensive nuclear facility assessments and inspections. The IAEA also supports the use of safeguards which are systems in place that can be used to prevent any nuclear emergencies. An example of a safeguard that the IAEA uses are routine inspections that can be scheduled or unannounced.

Nuclear weaponry first gained major attention towards the end of World War Two, when the United States dropped atomic bombs on the Japanese cities of Hiroshima and Nagasaki. This marked the start of an arms race across the world - mainly between the United States and Russia which was formally the Soviet Union<sup>6</sup>. The arms race was a contest for countries to build up their militaries - specifically their nuclear weapons. This arms race led to many events, but none bigger than the Cold War. This was a period of geopolitical tension between the United States and the Soviet Union, and their respective allies, the Western Bloc and the Eastern Bloc. Starting in 1947, two years after the end of World War II, the Cold War lasted until the fall of the Soviet Union in 1991<sup>7</sup>. The Cold War also caused numerous amounts of proxy wars throughout the world. These proxy wars were fought to avoid direct confrontation of the two major superpowers at the time, those being the USA and the Soviet Union. There was also mass hysteria and paranoia worldwide as nuclear war could commence at any moment, presenting an unknown outcome.

The UN has given highest priority to reducing and eventually eliminating nuclear weapons, destroying chemical artillery, and strengthening the prohibition

<sup>5</sup> Kimball, Daryl. "Nuclear Disarmament: The South African Example | Arms Control Association." *www.armscontrol.org*, [www.armscontrol.org/blog/2011-07-08/nuclear-disarmament-south-african-example](http://www.armscontrol.org/blog/2011-07-08/nuclear-disarmament-south-african-example).

<sup>6</sup> Perlo-Freeman, Sam. "Arms Race." *Encyclopædia Britannica*, 2019, [www.britannica.com/topic/arms-race](http://www.britannica.com/topic/arms-race).

<sup>7</sup> Britannica. "Cold War | Causes, Facts, & Summary." *Encyclopædia Britannica*, 19 Jan. 2024, [www.britannica.com/event/Cold-War](http://www.britannica.com/event/Cold-War).

of biological weapons – all of which pose direct threats to humankind<sup>8</sup>. Nuclear artillery threatens humanity as one of its biggest dangers. One nuclear weapon has the potential to destroy a whole city, potentially killing millions, and jeopardizing the natural environment. This possibly has ramifications of future generations with long-term effects these weapons impose. The vulnerabilities from such weapons arise from their very existence. Disarmament is the best protection against such dangers, but achieving this goal has been a tremendously difficult challenge. Approximately 13,400 nuclear weapons still remain in the world today, with 2,000 nuclear tests actively being conducted<sup>9</sup>. Other efforts to help the disarmament process include the creation of the Regional Nuclear Weapon Free Zones (NWFZ), which have been outlined and created all over the globe<sup>10</sup>. NWFZ are a legally binding agreements that prohibits the use, possession, or deployment of nuclear weapons in a specific geographical area. NWFZ are considered an important way to strengthen global nuclear non-proliferation and disarmament norms. The start of treaties involving nuclear disarmament was in 1946, and inspired the continuation of these peaceful acts to modern day. The United Nations Secretariat supports efforts aimed at the non-proliferation and total elimination of nuclear weapons<sup>11</sup>.

The topic of nuclear disarmament has a vast range of opinions as one studies each nation. Countries such as China, France, Russia, and the United States, who are known for utilizing nuclear energy, may have a different stance on disarmament compared to other governments such as Ukraine, Japan, and Australia who have suffered from nuclear spillage and its carnage. There is often a national divide when it comes to the topic of disarmament and the question of how to take the process. Some nations support and expect complete disarmament globally. Other countries may support the use of nuclear waste and not nuclear weaponry. There are also nations who

<sup>8</sup> United Nations. "Disarmament." *United Nations*, 2022, [www.un.org/en/global-issues/disarmament](http://www.un.org/en/global-issues/disarmament).

<sup>9</sup> "Nuclear – UNODA." *United Nations*, [disarmament.unoda.org/nuclear/](http://disarmament.unoda.org/nuclear/).

<sup>10</sup> "Nuclear-Weapon-Free Zones – UNODA." *United Nations*, [disarmament.unoda.org/wmd/nuclear/nwzf/](http://disarmament.unoda.org/wmd/nuclear/nwzf/).

<sup>11</sup> United Nations Office for Disarmament Affairs. "Nuclear Weapons." *United Nations*, 2019, [disarmament.unoda.org/wmd/nuclear/](http://disarmament.unoda.org/wmd/nuclear/).

don't believe in the idea of nuclear disarmament as a whole. Nations should approach this issue with caution but be excited for the change that can be made.

#### QUESTIONS TO CONSIDER:

1. Should there be a limit on how many nuclear weapons countries should have?
2. Should there be a budget or restrictions on how much money one country spends on nuclear weapons and/or energy?
3. What guidelines should be implemented to regulate usage?

#### HELPFUL SOURCES

“Nuclear Weapons”

<https://disarmament.unoda.org/wmd/nuclear/>  
<https://www.un.org/en/global-issues/disarmament>

“What does Disarmament Look Like?”

[https://georgewbush-whitehouse.archives.gov/infocus/iraq/disarmament/02\\_examples.html](https://georgewbush-whitehouse.archives.gov/infocus/iraq/disarmament/02_examples.html)  
<https://press.un.org/en/2023/gadis3720.doc.htm>

“Disarmament”

<https://www.un.org/en/global-issues/disarmament>

“Treaty on the Prohibition of Nuclear Weapons”

<https://disarmament.unoda.org/wmd/nuclear/tpnw/>

“What is Nuclear Disarmament”

<https://www.un.org/en/peace-and-security/what-nuclear-disarmament>

## TOPIC 2: THE SAFE USAGE OF NUCLEAR TECHNOLOGY IN DEVELOPING STATES

The definition of nuclear technology ranges far beyond simply nuclear warheads and power plants. The term “nuclear technology” can refer to any number of innovations in the field of nuclear science – such as medical diagnosis and treatment, criminal investigation, agriculture, carbon dating, and insect control, among others.<sup>12</sup> Most important is atomic energy, which is the most effective method of converting matter into energy.<sup>13</sup> However, as developing states seek to harness this power, it has become increasingly important to guarantee the safe and responsible use of nuclear technology. At the same time, barriers that deny access to nuclear technology must be reviewed to ensure it doesn't stay solely in the hands of developed nations.

In the years following its inception, nuclear technology was embraced only by a select few nations with advanced technological capabilities and financial stability. From the US and Soviet Russia, the technology would be spread across most of Europe. Gradually, breakthroughs were made through the decades, and accidents drew setbacks, but policy ultimately pushed forward. During the 1970s Oil Crises, nuclear power reached its peak in terms of growth across the world.<sup>14</sup> This was because the Organization of the Petroleum Exporting Countries (OPEC) instated an embargo on oil meant for the United States.<sup>15</sup> With the loss of such a prominent energy source, the United States turned to alternative sources, primarily atomic energy. This trend of

---

<sup>12</sup> “The Many Uses of Nuclear Technology.” World Nuclear Association, World Nuclear Association, [world-nuclear.org/information-library/non-power-nuclear-applications/overview/the-many-uses-of-nuclear-technology](http://world-nuclear.org/information-library/non-power-nuclear-applications/overview/the-many-uses-of-nuclear-technology). Accessed 20 Sept. 2024.

<sup>13</sup> “Nuclear Power Is the Most Reliable Energy Source and It's Not Even Close | Department of Energy.” Energy.Gov, Office of Nuclear Energy, Mar. 2021, [www.energy.gov/ne/articles/nuclear-power-most-reliable-energy-source-and-its-not-even-close](http://www.energy.gov/ne/articles/nuclear-power-most-reliable-energy-source-and-its-not-even-close).

<sup>14</sup> “Outline History of Nuclear Energy.” World Nuclear Association, Aug. 2024, [world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy](http://world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy).

<sup>15</sup> “Oil Embargo, 1973–1974.” U.S. Department of State, U.S. Department of State, [history.state.gov/milestones/1969-1976/oil-embargo](http://history.state.gov/milestones/1969-1976/oil-embargo). Accessed 20 Sept. 2024.

growth continued until around the 1990s when a combination of controversy and costs stifled further expansion of nuclear power, though not the development of medicinal uses of nuclear technologies.<sup>16</sup> While all the growth and decline were happening, new guidelines were being established regularly and enforced to a higher degree. With new international regulatory bodies like the IAEA, gone were the relatively unrestricted days of nuclear development. The nations that already had a foothold in the industry continued to expand and diversify the technology, while new nations encountered increasingly more stringent regulations. These guidelines were created for the benefit and safety of all but had the unintended effect of deterring developing nations interested in nuclear power.

In recent years, the consensus has mostly been a positive view of nuclear power as a reliable energy source, particularly in the United States.<sup>17</sup> This comes about as a result of two main things: the pervasive effects of greenhouse gas emissions on the climate and the question of the feasibility of renewables.<sup>18</sup> Still, many nations are struggling to maintain their nuclear programs with mounting costs, causing the projected share of nuclear generation to fall from about 10% in 2022 to about 8% in 2050.<sup>19</sup> Despite this, more than two dozen new countries are currently considering or have decided to add nuclear power.<sup>20</sup> This coincides with the trend of urbanization in lesser-developed countries, which will greatly increase electricity demand.<sup>21</sup> To meet emission

---

<sup>16</sup> Ibid.

<sup>17</sup> Leppert, Rebecca, and Brian Kennedy. "Majority of Americans Support More Nuclear Power in the Country." *Pew Research Center*, Pew Research Center, 5 Aug. 2024, [www.pewresearch.org/short-reads/2024/08/05/majority-of-americans-support-more-nuclear-power-in-the-country/](http://www.pewresearch.org/short-reads/2024/08/05/majority-of-americans-support-more-nuclear-power-in-the-country/).

<sup>18</sup> Cefaratti-Bertin, Shelby. "Renewable Energy Goals Are Unattainable by 2050." *Media and Public Relations | Baylor University*, Feb. 2024, [news.web.baylor.edu/news/story/2024/renewable-energy-goals-are-unattainable-2050](http://news.web.baylor.edu/news/story/2024/renewable-energy-goals-are-unattainable-2050).

<sup>19</sup> "World Energy Needs and Nuclear Power." *World Nuclear Association*, July 2024, [world-nuclear.org/information-library/current-and-future-generation/world-energy-needs-and-nuclear-power](http://world-nuclear.org/information-library/current-and-future-generation/world-energy-needs-and-nuclear-power).

<sup>20</sup> "Infrastructure Development." IAEA, IAEA, 13 Apr. 2016, [www.iaea.org/topics/infrastructure-development](http://www.iaea.org/topics/infrastructure-development).

<sup>21</sup> "Emerging Nuclear Energy Countries." *World Nuclear Association*, Apr. 2024, [world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries](http://world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries).

requirements and prevent reliance on fossil-fuel infrastructure, many developing nations are opting for nuclear power.<sup>22</sup>

It's no secret that the criteria a nation needs to fit to be considered for a nuclear reactor are strict. As the IAEA states, successful nuclear infrastructure requires "building national institutions, establishing a legal and regulatory framework, developing human resources and financial strategies, addressing radioactive waste management and involving stakeholders."<sup>23</sup> For nations experiencing political or economic turmoil, this implementation proves to be a serious challenge. A common option used for more underdeveloped countries is to enlist the construction, training, and operation of a power plant entirely by an outside body.<sup>24</sup> Later on, as the nation mounts its programs and infrastructure, it can gradually take control of the power plant as it operates.<sup>25</sup> In addition, potential sites for nuclear power plants need to be surveyed before construction can begin.<sup>26</sup> This adds another filter for nations that experience a high volume of natural disasters without many other options if they are told they cannot construct a plant.

Perhaps the most significant barrier to the global implementation of nuclear power is the financial struggle with acquiring a nuclear power plant. The most common route that nations take for funding is usually a mix of government budget, foreign direct investment, assistance programs, and private investors.<sup>27</sup> With such a mix of outside funds, problems arise about ownership and decision-making regarding the plant. Measures must be taken to

---

<sup>22</sup> Goldemberg, José. "Nuclear Energy in Developing Countries." *American Academy of Arts & Sciences*, 20 Sept. 2019, [www.amacad.org/publication/daedalus/nuclear-energy-developing-countries](http://www.amacad.org/publication/daedalus/nuclear-energy-developing-countries).

<sup>23</sup> "Infrastructure Development." IAEA, IAEA, 13 Apr. 2016, [www.iaea.org/topics/infrastructure-development](http://www.iaea.org/topics/infrastructure-development).

<sup>24</sup> Csik, B.J., and Kurt Schenk. "Nuclear Power in Developing Countries: Requirements & ..." *Nuclear Power in Developing Countries: Requirements & Constraints*, [www.iaea.org/sites/default/files/29204783942.pdf](http://www.iaea.org/sites/default/files/29204783942.pdf). Accessed 21 Sept. 2024.

<sup>25</sup> Ibid.

<sup>26</sup> "Siting of Nuclear Facilities." IAEA, IAEA, 13 Apr. 2016, [www.iaea.org/topics/siting](http://www.iaea.org/topics/siting).

<sup>27</sup> "Financing Nuclear Energy." *World Nuclear Association*, May 2024, [world-nuclear.org/information-library/economic-aspects/financing-nuclear-energy](http://world-nuclear.org/information-library/economic-aspects/financing-nuclear-energy).

balance outside fund allocation and domestic control of the plant. Furthermore, nuclear power plants are long-term investments with steep initial costs and payouts in the future.<sup>28</sup> This poses a problem for countries with unstable economic and political climates that prevent them from being nuclear energy contenders.

Moreover, developing nations are plagued by many problems and have bigger concerns than the potential use of nuclear power. Often, countries that would want nuclear power simply don't find it feasible given the state of their nation. For states suffering from food, water scarcity, or a poor education system, their concerns likely aren't about nuclear technology. This may elicit help from nations in other ways apart from direct funding. This could be temporarily providing education, job training, or oversight.

The possibility of nuclear materials being put to the wrong use is a great concern many developed nations share. In many cases, developed nations will provide enriched uranium or other fissile materials to developing nations who can't source it within their borders.<sup>29</sup> The process for determining if they can be trusted with such materials is strict, but the threat of a potential new nuclear-capable state is daunting.<sup>30</sup> However, with the perfecting of thorium-based reactors, this concern may be one of the past. This is because thorium cannot undergo the same chain reaction as uranium or plutonium, which makes them so destructive.<sup>31</sup> Though thorium reactors can be a more considerable investment than other reactor types, they pay off in the long run since thorium itself is more abundant.<sup>32</sup>

Nations' stances on the topic vary based on their history with nuclear power and wealth. Established

nations with positive backgrounds in nuclear technology, such as the US, France, Russia, and China, are primary advocates for advancing nuclear power. However, these powerful nations are also interested in influencing any nation they finance or give materials to. Some developed nations are also entirely opposed to nuclear power for one reason or another. The most notorious example of this is Germany, which uses its large stake in multilateral banks to block the financing of nuclear power for developing nations.<sup>33</sup> Furthermore, some developing nations are interested in adopting nuclear technology themselves and use mutual support to do so. Some developing nations don't see the need for nuclear energy and peacefully decide not to implement it. In between these main blocs, some nations hold different stances in different contexts.

In modern-day, there are several facets to establishing nuclear reactors in developing states. Primarily, there are the safety regulations, inspections, and all the other regulatory requirements. Many of these are internationally controlled and have large costs as well. Moreover, the country must find and maintain qualified workers to run the plant. Behind all of this, there are financing issues. Developed nations or private investors could influence developing countries, as the use of overly strict regulations or abusive financing practices could diminish the sovereignty of developing nations. All these requirements have already stalled nuclear development programs in nations such as the Philippines, India, and many countries in sub-Saharan Africa.<sup>34</sup> To reach a consensus on the issue, nations, big and small, must work through the problem and plan comprehensively to work out a solution addressing all aspects.

---

<sup>28</sup> Ibid.

<sup>29</sup> Goldemberg, José. "Nuclear Energy in Developing Countries." American Academy of Arts & Sciences, 20 Sept. 2019, [www.amacad.org/publication/daedalus/nuclear-energy-developing-countries](http://www.amacad.org/publication/daedalus/nuclear-energy-developing-countries).

<sup>30</sup> "Safeguards to Prevent Nuclear Proliferation." World Nuclear Association, May 2021, [world-nuclear.org/information-library/safety-and-security/non-proliferation/safeguards-to-prevent-nuclear-proliferation](http://world-nuclear.org/information-library/safety-and-security/non-proliferation/safeguards-to-prevent-nuclear-proliferation).

<sup>31</sup> "Thorium." World Nuclear Association, May 2024, [world-nuclear.org/information-library/current-and-future-generation/thorium](http://world-nuclear.org/information-library/current-and-future-generation/thorium).

<sup>32</sup> Ibid.

---

<sup>33</sup> Lloyd, Juel. "How Multilateral Banks Are Holding Back the Developing World." The Breakthrough Institute, The Breakthrough Institute, 6 Oct. 2023, [thebreakthrough.org/blog/how-multilateral-banks-are-holding-back-the-developing-world](https://thebreakthrough.org/blog/how-multilateral-banks-are-holding-back-the-developing-world).

<sup>34</sup> "Emerging Nuclear Energy Countries." *World Nuclear Association*, Apr. 2024, [world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries](http://world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries).

## QUESTIONS TO CONSIDER

1. Should developing nations be trusted with nuclear technology? How developed or under-developed does a nation need to be to receive aid?
2. How can nations safely transport materials to places with little infrastructure?
3. What is needed to foster a more accepting culture of nuclear energy?
4. How should standards be set and regulated for nuclear infrastructure? Who should be in control?
5. How can developing nations allocate resources and financial assistance to help meet energy needs? How should the wants of the lenders be balanced with the needs of the nation?

## HELPFUL SOURCES

“Emerging Nuclear Energy Countries”

<https://world-nuclear.org/information-library/country-profiles/others/emerging-nuclear-energy-countries>

“Advantages and Challenges of Nuclear Energy”

<https://www.energy.gov/ne/articles/advantages-and-challenges-nuclear-energy>

“The Nuclear Non-Proliferation Treaty (NPT)”

<https://history.state.gov/milestones/1961-1968/npt>

Nuclear energy in developing countries

<https://www.amacad.org/publication/daedalus/nuclear-energy-developing-countries>