



JointMUN
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Briefing Paper – International Atomic Energy Agency
The future of Nuclear Power

The International Atomic Energy Agency

The issue of nuclear power and its future within the international arena has always posed challenging questions to both proponents and opponents of its use. The implications of nuclear power intimately affect areas such as environmental sustainability, human safety, and nuclear proliferation, and as such the issue has adopted an important position in global affairs, most notably maintained through the International Atomic Energy Agency (IAEA).

The IAEA, originally created in 1957, is the key institution charged with both the promotion of peaceful applications of nuclear energy, and the advocacy of appropriate safety regulations, in light of the dangers that nuclear power inevitably poses to both humans and the environment. Although the agency was originally created independently of the United Nations, its role in the international arena has led to close cooperation with the member states of the United Nations (UN), and the 151 members of the IAEA are members of the UN also, with notable non-members including North Korea.

Furthermore, fifteen nations who currently do not have nuclear capabilities nor access to these under the Nuclear Non-Proliferation Treaty (NPT), have proposed plans for the future construction of facilities, including North Korea and Iran.

Nuclear power concerns as a result of the failure of the Fukushima I Nuclear Power Plant

Nuclear power is essentially the generation of heat and electricity through the process of nuclear fission. As of 2010, nuclear power provides 6% of the world's energy and 13-14% of its electricity, thus being a significant source of useful energy in the 21st century. It is most prominently utilised by such nations as the United States, Japan and France, with nuclear power providing approximately 19% of all electricity generated by the US. Thirty-one countries currently have nuclear power stations in operation, including Russia, Germany, India and Pakistan, with twenty seven of these nations anticipating future expansion of their nuclear power capabilities through the construction of further stations.

In Japan, following an earthquake and tsunami in March 11 2011, the Fukushima I nuclear plant experienced ongoing failures and release of radioactive materials in which its boiling water reactors experienced cooling problems, radioactivity release, explosions of buildings, partial core meltdowns. This was the first time a nuclear emergency was declared in Japan in which a 10km evacuation zone was ordered.

The Fukushima Daiichi nuclear power complex was central to falsified report scandals since 2002. As well, the IAEA and Japan has expressed concern about the ability of Japan's nuclear plants to withstand seismic activity even though Japan's Nuclear and Industrial Safety Agency believe it was safe. When the IAEA inspected the plant on 30 March, 20MBq/m² of iodine-131 were found at the Fukushima power points, plans were announced of a large scale study of the environmental and health effects.

As a result, embassies of various countries advised their nationals to leave Tokyo. The incident has raised fundamental questions regarding nuclear power programs around the world and the safety and viability of this energy option in the decades to come.

Questions to consider

- How can IAEA inspectors role be expanded?
- To what extent does a Member State retain policy and legislative autonomy over its nuclear plant facility safety aspects?
- What role does the frequency and intensity of environmental disasters shape nuclear plant emergency policy and responses from the national and international community? Which other UN body could the IAEA ideally work with to reduce potential and radiological incidents and emergencies?
- Should there be further severity on the claims of IAEA member states introducing nuclear power programmes, particularly those from Least Developed Countries?

Useful Resources

- IAEA Convention of Early Notification of a Nuclear Accident
- IAEA Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- IAEA Convention on Nuclear Safety
- IAEA Resolution GC(53)/24 Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety
- Paris Convention on Third Party Liability in the Field of Nuclear Energy
- Vienna Convention on Civil Liability for Nuclear Damage



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Sarah Nguyen (University of Sydney) and Stephanie Triefus (Macquarie University)

The future of Nuclear Power

The International Atomic Energy Agency,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war and conditions for a safer world,

Reaffirming its commitment to the 1968 Treaty on the Non-Proliferation of Nuclear Weapons, 1996 Comprehensive Nuclear Test Ban Treaty and 2005 Convention of the Suppression of Acts of Nuclear Terrorism,

Noting that comprehensive measures have been and are being taken to ensure a high level of safety in nuclear activities, aimed at preventing nuclear accidents and minimizing the consequences of any such accident, should it occur,

Further reaffirming the need for all Member States to fulfill their obligations in relation to arms control and disarmament and to prevent proliferation in all its aspects of all weapons of mass destruction,

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency (Agency) safeguards on peaceful nuclear activities,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States,

Concerned about the current situation at the Fukushima nuclear power plant in Japan,

1. *Ensures* that Member States take appropriate steps to maintain the safety in the construction and management of nuclear installations and ensure all improvements are made to upgrade the safety of the nuclear installation, and will be shut down if upgrading is not achieved;
2. *Calls* for stringent legislative and regulatory safety framework surrounding nuclear facilities, including provisions concerning construction of nuclear facilities in areas prone to natural hazards;
3. *Calls* upon all Member States to ensure that quality assurance and safety assessment programmes are established and implemented and reviewed under the authority of a country's regulatory body;
4. *Supports* Member States to ensure appropriate on-site and off-site emergency plans in the event of a radiological emergency;
5. *Calls upon* Member States, with the coordination of the Agency to facilitate prompt financial, medical and humanitarian assistance in the event of a nuclear accident to minimize the consequences of the effects of radioactive releases on life, property and the environment;
6. *Encourages* member states to expand research and development of other renewable energy sources so as not to rely on nuclear energy, with a view to eventually reducing the number of nuclear facilities in use;
7. *Decides* to remain actively seized of the matter.