

Country Report of Japan¹
Current Activities for the Peaceful Use of Nuclear Energy in Japan

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Your Excellencies, distinguished delegates, ladies and gentlemen.

It is a great pleasure for me to introduce the current activity of Japan for the peaceful use of nuclear energy to the ninth Ministerial-Level Meeting of the Forum for Nuclear Cooperation in Asia.

Japan is promoting the research, development and utilization of nuclear energy, aiming at both a larger contribution of nuclear power to electricity generation and wider and deeper applications of radiation and radioisotopes in diverse areas, in accordance the Framework for Nuclear Energy Policy decided by the Atomic Energy Commission in 2005.

As for nuclear power generation, fifty-five commercial nuclear power plants are currently in operation in Japan and their combined capacity is forty-nine GWe. They are supplying about one-third of electricity and twelve percents of primary energy in Japan. They are contributing to the enhancement of Japan's energy security and playing an important role as measures against global warming. Furthermore, three units are under construction and three more units are under licensing review. Electric utility companies have announced that they will start to operate nine units within ten years or so.

As you may remember, Japan suffered an earthquake in the vicinity of Kashiwazaki-Kariwa nuclear power plants in July 2007. The earthquake significantly exceeded the design basis for the reactors. This fact reminded us the reality that our scientific understanding of the mechanisms that determine the frequency and magnitude of earthquakes is incomplete. Nevertheless, the reactors were safely shut down and the safety-related equipment survived the event well, thereby demonstrating that the designs had ample safety margins. We have since then been making rigorous efforts to reconfirm the seismic safety of not only the plants in question but all the plants in Japan, reflecting lessons learned from this experience in seismology, structural design and emergency preparedness.

We believe that any country that utilizes nuclear energy has obligation to pursue continuous improvement in all areas related to nuclear safety, taking into consideration of important research results published and operating experience obtained from existing plants all over the world. From this belief Japan hosted an IAEA workshop on the seismic safety in the Kashiwazaki-Kariwa region in June and will actively support the newly established IAEA International Seismic Safety Center.

¹ Presented at the occasion of the 9th FNCA Ministerial-level Meeting held in Manila, The Philippines, November 28, 2008.

The safe transport of radioactive material is an essential aspect of the peaceful use of nuclear energy. Based on the right of freedom of navigation under international law, Japan will continue to conduct transport of nuclear materials, while employing the most stringent safety measures in accordance with international standards. Japan will also engage in dialogue with shipping and coastal States, building confidence and enhancing mutual understanding.

As for nuclear security, Japan has initiated projects to help bolster nuclear security, mainly in the Asian region, with its contributions such as those to the IAEA Nuclear Security Fund. Japan has also actively been participating in the drafting of the IAEA guidelines on nuclear security.

Japan attaches great importance to strengthening the nuclear non-proliferation regime, and stresses the importance of achieving the universal application of the IAEA's safeguards system, including Comprehensive Agreement and Additional Protocol. In particular, Japan believes that the universalization of the Additional Protocol is the most realistic and effective way to strengthen the IAEA safeguards. Japan will continue to promote this universalization where possible, and to this end, will continue to host ASTOP (the Asian Senior-level Talks on Non-Proliferation) meetings and IAEA seminars on this matter.

Japan is promoting the research and development of Generation IV reactors and fast reactors, in particular, and medium and small reactors as well which will contribute to the peaceful use of nuclear energy and nuclear non-proliferation in future, operating experimental fast reactor Joyo, prototype fast breeder reactor Monju, and High Temperature Test Reactor (HTTR) as a basis for this activity.

A growing number of countries have expressed their interests in nuclear power programs as a means to addressing climate change and energy security concerns. Considering the importance of developing infrastructure for assuring nuclear nonproliferation/safeguards, nuclear safety and nuclear security or 3S in these countries, Japan proposed an international initiative on 3S-based nuclear energy infrastructure and launched it at the G8 Hokkaido Toyako Summit July this year. As a follow-up activity to this initiative, Japan, together with the IAEA, successfully held a regional seminar on 3S August in Hanoi, Vietnam.

Japan will continue to expand its assistance to those countries planning to introduce nuclear power generation, supporting the 3S-related infrastructure development, capacity building and the establishment of a legal framework.

The promotion of the utilization of radiation is another important area, because radiation technology is used in many countries to advance development in diverse fields such as agriculture, medicine, industry and science. In order to explore wider and deeper application of utilization in diverse areas, Japan has constructed and operated radiation facilities such as TIARA, HIMAC, next-generation heavy ion accelerator facility, RI (radioactive isotope) Beam Factory, J-PARC etc., for diverse users. Under the FNCA framework, eleven projects in eight fields are currently in progress. The

results of these projects encourage us to continue our contribution to further progress in these projects and starting of new projects.

In conclusion, Japan is continuing to pursue peaceful utilization of nuclear energy for the benefit of the people. Japan is and will be continuing to cooperate with countries in the region also in the spirit of partnership for the advancement of nuclear science and technology and the effective utilization of such advancement including nuclear power generation for social and economic development in each country.