

# **Opening Remarks: Presentation by Ministers on Their Countries' Nuclear Policies**

## **Speech by Minister Sanae Takaichi**

### **1. Introduction**

I am Sanae Takaichi, state minister for science and technology policy.

In Japan, the Cabinet Office (CAO) is responsible for the country's nuclear policies in general. The Cabinet Office decides basic policies such as the Framework for Nuclear Energy Policy and coordinates activities among the ministries and agencies concerned such as the Ministry of Economy, Trade and Industry (METI), the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Ministry of Foreign Affairs (MOFA).

Today, I am honored to have the opportunity to meet with ministers and responsible officials for major countries' nuclear policies. Now, the world's view of nuclear energy stands a turning point. In this context, I believe it is quite important for me, as an official responsible for Japan's nuclear policy, to participate in discussions on what role nuclear energy should play in the world of tomorrow, and I hope today's discussions will produce fruitful results.

### **2. Movements toward Nuclear Renaissance**

As known, an expected increase in global energy consumption poses immediate and real threats to energy security and efforts to mitigate global warming. We must quickly take effective measures to tackle these issues. As the usefulness of nuclear energy was pointed out in IPCC fourth assessment report that was issued recently, the broad utilization of nuclear energy having performance of safety and cost should be seriously

considered now more than ever as effective energy source of ensuring stable energy supply and simultaneously reducing carbon dioxide emissions.

Many Asian countries, where a sharp increase in energy consumption is expected in particular, pin high hopes on nuclear power generation as a new energy source. For example, the introduction of nuclear power generation is being discussed at a ministerial meeting of the Forum for Nuclear Cooperation in Asia, which comprises Japan and nine other countries as members. Among the members of this forum, Japan, China and South Korea are already utilizing nuclear power and other members such as Indonesia, Vietnam and Malaysia have expressed their intention to introduce it. The Philippines, Thailand and Australia have begun considering nuclear power as a future option.

As moves to introduce nuclear power generation are growing in Asia as well as elsewhere around the world, it is necessary to remain vigilant against the negative characteristics of nuclear energy by tackling problems such as North Korea's nuclear weapon test and possible terrorist attacks using nuclear weapons. Such problems remind us of the importance of increasing efforts to enhance the framework for nuclear nonproliferation, safeguard nuclear materials and ensure the safety of nuclear energy.

### **3. Japan's Nuclear Policy**

Since 1955, Japan has been promoting the utilization of nuclear energy in order to enhance the welfare of human society and improve the living standards of the Japanese people. In doing so, we have strictly limited research and development related to nuclear energy to peaceful purposes. We have willingly accepted the IAEA's safeguards-related activities, and we have been actively involved in the development of technologies related to such safeguards.

Japan now has 55 nuclear power generation facilities, and it is the only non-nuclear-armed country under the aegis of the NPT (Nuclear Nonproliferation Treaty) to operate a nuclear fuel cycle for commercial purposes. Japan's efforts and achievements concerning the peaceful use of nuclear energy have been recognized by the IAEA as well as other countries.

Furthermore, Japan hopes to maintain a ratio of nuclear power generation-to-total electricity generation within the 30 to 40% range at the lowest, even after 2030 when the widespread replacement of existing nuclear power plants will begin. Japan is also promoting research and development concerning nuclear fuel cycles using fast-breeder reactors in order to ensure a stable energy supply and to reduce radioactive waste. We hope to introduce the technology for the fast breeder reactor and its fuel cycle on a commercial basis by around 2050.

#### **4. View of GNEP Scheme**

The GNEP scheme, as I understand it, is a global scheme of promoting activities, including especially research and development , for the following three points. 1<sup>st</sup> one is to promote the utilization of nuclear energy while at the same time discourage the proliferation of nuclear materials and technologies. 2<sup>nd</sup> point is to ensure a stable supply of energy which is clean and reliable and does not emit greenhouse gases harmful to our climate. 3<sup>rd</sup> point is to reduce radioactive waste.

As I said at the beginning of my speech, it is quite important to promote the utilization of nuclear energy as a means to cope with the issues of energy security and global warming, both of which must be tackled by all people around the world. In particular, it is important to ensure that countries seeking to introduce nuclear power generation are able to utilize nuclear energy safely and without endangering non-proliferation efforts. It is also important that Japan and other GNEP

partners support these countries by arranging such environment for utilization.

Japan has been promoting nuclear fuel cycles centered around nuclear plants while at the same time seeking to ensure nuclear non-proliferation and maintain safety in the nuclear energy industry. This stance is essentially consistent with the objectives of the GNEP scheme, and therefore I believe that Japan's capabilities and experiences will contribute to the realization of this scheme.

## **5. Japan's Contribution to GNEP**

*(Development of advanced Fuel Cycles and Fast Reactors)*

Under the GNEP scheme, spent fuel will be recycled in order to use the resource effectively and reduce radioactive waste by utilizing technologies highly resistant to proliferation, and research and development into reprocessing and fuel production technologies necessary for said recycling process will be promoted. In addition, research and development into advanced recycling reactors (ARR) that employ MOX fuel will be conducted.

Japan has been engaged in research and development into fast reactors as long-term activities. We have also gained significant experience from the "Joyo" experimental reactor, the "Monju" prototype reactor and the Tokai reprocessing plant. Since last year, Japan has been engaged in research and development aimed at establishing the fast breeder reactor cycle in particular as the key technologies of national importance. I believe that Japan can contribute to the GNEP scheme by taking advantage of the experience we have gained and the research and development activities we have implemented.

### *(Small and Medium-Size Reactors)*

Another objective of the GNEP scheme is to develop small and medium-size reactors well suited for the size of electricity generation systems in countries aiming to introduce nuclear energy. I believe that advanced technologies developed by Japanese companies will contribute to the development of such reactors.

### *(Safeguard Technology)*

Moreover, Japan appreciates the fact that the GNEP seeks to further improve technology pertaining to safeguard measures and apply said technology to the facilities concerned.

Japan has consistently maintained a policy of using nuclear energy strictly for peaceful purposes and has conducted safeguard activities under the framework of the IAEA. In 2004, the IAEA concluded that all nuclear materials owned by Japan were safeguarded and being used for peaceful purposes. As a result, Japan has been gradually shifting to an integrated safeguard system. I believe that Japan can make significant contributions to the GNEP scheme based on the technologies and know-how it has acquired through its safeguarding activities.

### *(Establishment of Nuclear Fuel Service)*

The GNEP scheme envisions a reliable service for the supply of nuclear fuel.

Should countries seeking to introduce nuclear power generation build their own enrichment plants, the risk of proliferation is expected to increase. In light of this issue, IAEA Secretary-General Mohamed ElBaradei proposed the Multilateral Nuclear Approaches, MNA, in October 2003. Based on this proposal, Japan and other countries have presented a series of proposals concerning the assurance of nuclear fuel supply, and it

has become necessary to develop a new approach aimed to ensuring nuclear nonproliferation while at the same time promoting the utilization of nuclear energy.

A framework for the nuclear fuel supply service along the lines envisioned within the GNEP scheme should be considered in line with these activities, and Japan intends to actively make contributions to efforts to establish the framework for such a service.

*(Specific Collaboration)*

Because of the importance of these activities, Japan has been collaborating with other countries in the necessary research and development through international organizations and bilateral cooperation. Last month, the governments of Japan and the United States signed the Japan-U.S. Joint Nuclear Energy Action Plan. Under this agreement, Japan and the United States will cooperate in research and development related to the GNEP scheme and the construction of new nuclear power plants, among other activities.

## **6. Conclusion**

As I have explained, what the GNEP seeks to achieve coincides with the objectives of Japan's nuclear policy in many areas. I would like to conclude my speech by stating the following: Japan embraces the aims of the GNEP scheme and intends to actively make contributions to their realization.

Thank you for listening.

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