

## Development of Nuclear Nonproliferation Technology to Support Peaceful Use of Nuclear Energy

### New efforts to develop new nuclear security technologies

At the Nuclear Security Summit in April 2010, the Japanese government announced that Japan would promote research cooperation with the U.S. for the development of technology that would contribute to advances in the measurement and control of nuclear material, as well as the development of technologies related to nuclear material detection and nuclear forensics for the identification of the origin of illicitly trafficked nuclear material. Moreover, the announcement included the establishment of the Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN) under the Japan Atomic Energy Agency (JAEA) with the aim of improving infrastructure and assisting in the development of human resources and of improving infrastructure. The focus of the ISCN is particularly on Asia in order to strengthen nuclear security. We are working towards the realization of these pronouncements.

### Nuclear nonproliferation technology development for Japan and international applications

We have developed technologies for nuclear nonproliferation, including proliferation-resistant technologies, advanced safeguards systems, and nuclear security technologies. In the field of safeguards environmental sample analysis, we have been providing technical support to the International Atomic Energy Agency (IAEA) through the IAEA network Laboratories.

### Contributions to the international community based on our technology and experience

We contribute to the establishment of international monitoring systems for nuclear tests. As part of activities

relating to the comprehensive nuclear-test-ban treaty (CTBT), we have operated radio nuclide monitoring stations, transmitted data worldwide, and built a national data center.

### Contribution to the development of human resources

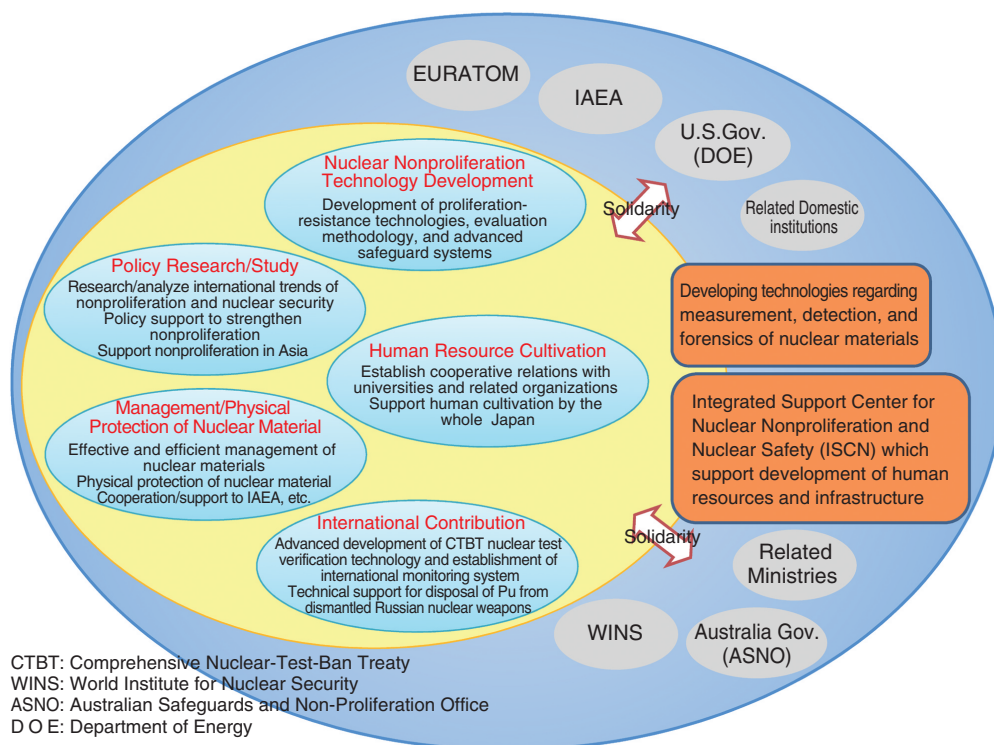
The ISCN, established in December 2010, new effort by the government, has conducted training courses and seminars on nuclear security and safeguards for nuclear experts, both in their countries and in Japan, in cooperation with the IAEA and the U.S.

### Domestic and international contributions utilizing management and experience of handling nuclear materials

We have had an effective system for the management of our nuclear materials. Moreover, we assist in streamlining inspections, for example, by providing technical support to the Japanese government and IAEA. We also provide support to the IAEA for physical protection, apart from responding appropriately in the case of revisions of Japanese laws.

### Role of recognized think tank in Japan as a resource center for Asia

We have researched and analyzed international trends in nonproliferation and nuclear security in order to realize both peaceful use of nuclear energy and nonproliferation. In Asia, Vietnam, for example, we have provided support in nonproliferation infrastructure development through the ISCN by implementing measures that are in accordance with a country's specific circumstances and by sharing our experience.



**Fig.11-1 JAEA activities pertaining to scientific and technical development for nuclear nonproliferation**

We have two primary missions with regard to nuclear nonproliferation: to support the government in developing nonproliferation policies through research and study and to support government and international organizations by developing nuclear nonproliferation technology.