

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

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

We have developed technologies for nuclear nonproliferation including proliferation - resistance technologies and advanced safeguards systems as well as nuclear security technologies. In the field of safeguards environmental sample analysis, we have been providing technical support to the IAEA through the IAEA Network Lab.

### New efforts to develop new nuclear security technologies

At the Nuclear Security Summit in April 2010, then Prime Minister Hatoyama announced that Japan would promote research cooperation with the U.S.A. in the development of technology contributing to the advancement of the measurement and control of nuclear material, as well as technologies related to nuclear material detection and nuclear forensics, which provide identification of the origins of illicitly trafficked nuclear material. Moreover, the announcement included the establishment of a regional center this year under JAEA with the aim of providing human resources development assistance and improving infrastructure, particularly in Asia, in order to strengthen nuclear security. We are proceeding towards the realization of these pronouncements.

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

We contribute to the establishment of international nuclear testing monitoring systems. As activities relating to the

Comprehensive Nuclear Test Ban Treaty, we have been operating radionuclide monitoring stations and transmitting data worldwide, as well as building a national data center.

### Contributions for cultivating human resources

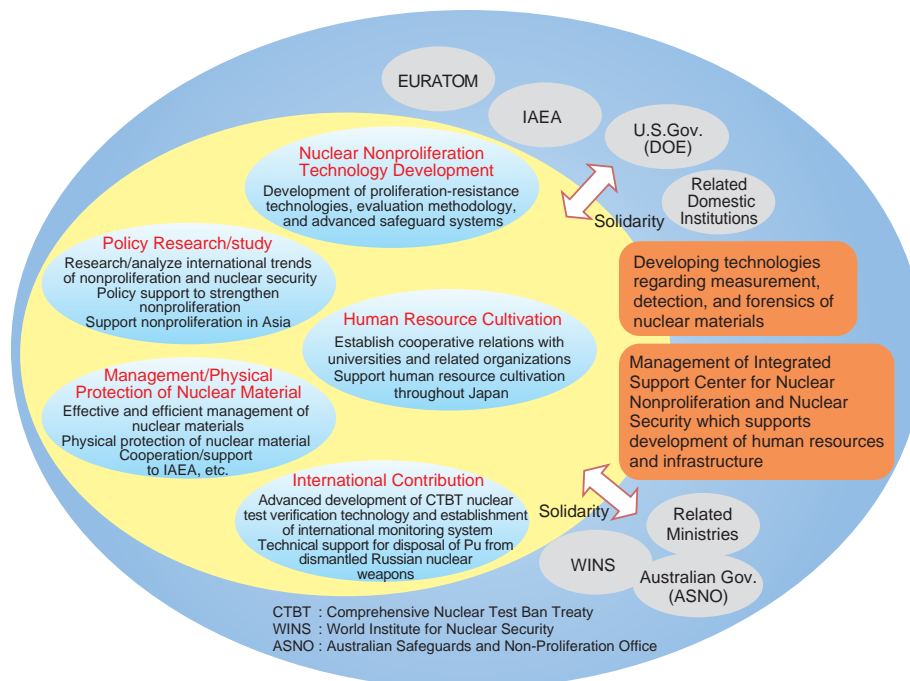
In order to contribute to developing human resources related to nuclear nonproliferation, we offer safeguards training in cooperation with the IAEA. We have also been promoting joint efforts to cultivate researchers at universities, especially the University of Tokyo.

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

As an institution that handles large volumes of nuclear materials, our own nuclear materials are strictly controlled. Moreover, we assist in streamlining inspections, such as by providing technical support to the Japanese government and to the IAEA. We also provide support to the IAEA in the field of physical protection, as well as responding appropriately in the case of revisions of Japanese laws.

### From a recognized think-tank in Japan to a resource center for Asia

We research and analyze international nonproliferation and nuclear security trends in order to realize both the peaceful use of nuclear energy and nonproliferation. In Asian countries, such as Vietnam, Thailand, Indonesia, etc., we have been providing support in nonproliferation infrastructure development by implementing measures matched to the country's particular circumstances and by sharing our experience.



**Fig.13-1 JAEA activities in scientific and technical development for nuclear nonproliferation**

We have two primary missions regarding 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.