

# Japan's Activity for Cooperation with Asia-Pacific region in Nuclear Security, Non-Proliferation and Safeguards

Asia-Pacific Safeguards Network (APSN)

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# 1. History of Japan's Safeguards

- Since 1977 when the Comprehensive Safeguards Agreement came into force, Japan has cooperated with IAEA in safeguards approaches and technology development.
- Japan has a big and complicated nuclear fuel cycle as the largest recipient of the IAEA's safeguards activities, having developed advanced SG equipment which is necessary in RRP and J-MOX etc.



Japan has made a lot as most developed states in SG through 50 years of peaceful use of nuclear energy.

## 2. Japan's role in implementing Safeguards responsibility

1. **Secure sustainability of safeguards in Japan and the World**
  - To assure peaceful nuclear activities in Japan,
  - To promote peaceful nuclear activities in the world esp. in Asian Region, because of the globalized nature of nuclear activities.
  
2. **Pursue the most advanced safeguards system in the world as a pioneer and practitioner**
  - To sustain adequate safeguards for the most complicated nuclear fuel cycle in non-nuclear weapon states from the point of safeguards implementation,
  - To fulfill Japan's role as the largest recipient of international safeguards activities.

### 3. Human Resource Development for Asia-Pacific region

Through Japan's experiences, we are promoting human resource development as our contribution

Assist, establish, maintain and expand the human capital base in the field of safeguards for continuous peaceful use of nuclear energy.

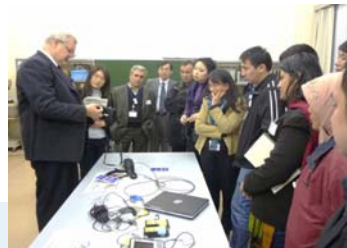
#### Points

- Establish education mechanisms to develop human capitals for safeguards
- Assist in Safeguards infrastructure building for developing states through SSAC training courses

## 4-1. Objectives of SSAC Training Course

The **SSAC Training Course for Asian and Pacific region** is held every year with the following purposes:

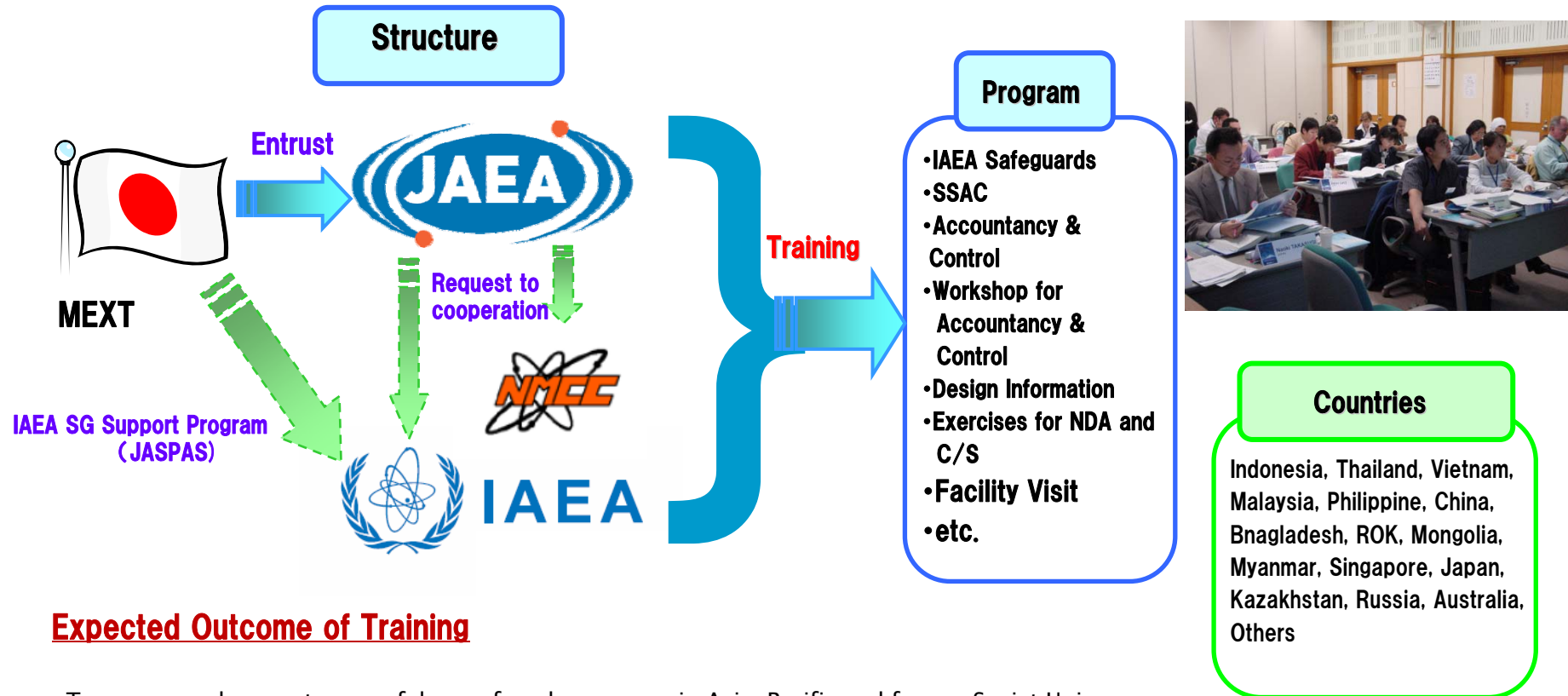
- To provide participants with **institutional and operational concepts and technology** in the areas of nuclear material accountancy and control systems.
- To enable participants to **initiate, operate and maintain such systems** in their countries to meet national safeguards objectives.
- To meet **international standard required by the IAEA**.



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## 4-2. Outline of SSAC Training Course



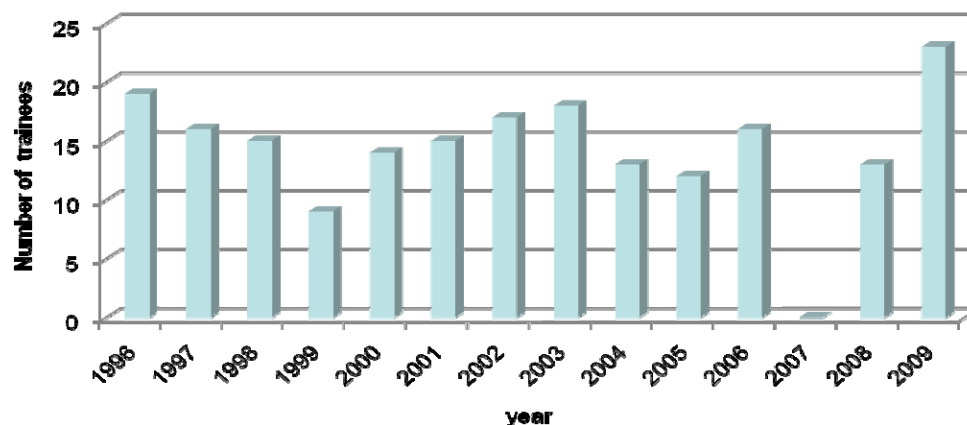
### Expected Outcome of Training

- To ensure and promote peaceful use of nuclear energy in Asia, Pacific and former Soviet Union
- To contribute to IAEA Safeguards implementation with improvement of knowledge for safeguards accountancy control
- To promote exchange of safeguards related information in the region.

## 4-3. SSAC Training Course (Actual Achievement)

About 200 participants from 32 countries between 1996–2009.

Number of trainees(1996-2009)



Country	Number of trainee/Country	Number of Countries	Number of trainee
China	18	1	18
Indonesia	16	1	16
Russia	15	1	15
Ukraine	14	1	14
ROK	13	1	13
Armenia, Japan, Kazakhstan, Malaysia, Thailand, Vietnam	10	6	60
Belarus	8	1	8
Philippine	6	1	6
Bulgaria, Lithuania, Uzbekistan	5	3	15
Czech, Romania, Slovakia	4	3	12
Australia, Bangladesh, Latvia, Myanmar	3	4	12
Hungary, Mongolia	2	2	4
Azerbaijan, Estonia, Georgia, Kyrgyzstan, Singapore, Tajikistan, UAE	1	7	7
<b>Total</b>		<b>32</b>	<b>200</b>



# 5. Japan's New Effort on Nuclear Security, Non-Proliferation and Safeguards

# Background (1)

Ensuring the “3S”, Safeguards, Security and Safety



G8 Hokkaido Toyako Summit Leaders Declaration (July 2008)

- *Fundamental principles for the peaceful use of nuclear energy*
- *An international initiative proposed by Japan on a 3S-based nuclear energy infrastructure will be launched*

URL: [http://www.g8summit.go.jp/eng/doc/doc080714\\_\\_en.html](http://www.g8summit.go.jp/eng/doc/doc080714__en.html)

“Japan-U.S. Joint Statement toward a World without Nuclear Weapons” , U.S.-Japan Summit meeting on November 13, 2009

Nuclear Non-Proliferation / Peaceful Uses of Nuclear Energy

*The GOJ and the USG intend to expand nuclear nonproliferation, safeguards, and security cooperation that may include areas such as . . . human resource development, training and infrastructure assistance for countries interested in nuclear energy . . .*



## Background (2)

### *Japan's National Statement at the Washington Nuclear Security Summit* (Excerpts)

Ministry of Foreign Affairs of Japan, [http://www.mofa.go.jp/policy/un/disarmament/arms/nuclear\\_security/2010/national\\_statement.html](http://www.mofa.go.jp/policy/un/disarmament/arms/nuclear_security/2010/national_statement.html)

#### **(A) Establishment of Integrated Support Center for Strengthening of Nuclear Security in Asia**

**“Japan will this year establish a regional center for the strengthening of nuclear security, tentatively named the "Integrated Comprehensive Support Center for Nuclear Non-Proliferation and Nuclear Security for Asia" under the Japan Atomic Energy Agency (JAEA), with the aim of institutionalizing support for nuclear security on a permanent basis and contributing to strengthened nuclear security in Asia and other regions in line with opinions expressed at the aforementioned seminar in January.”**

#### **(B) Development of Technology related to Measurement and Detection of Nuclear Material and Nuclear Forensics based on International Cooperation**

#### **(C) Contributions to IAEA Nuclear Security Programs**

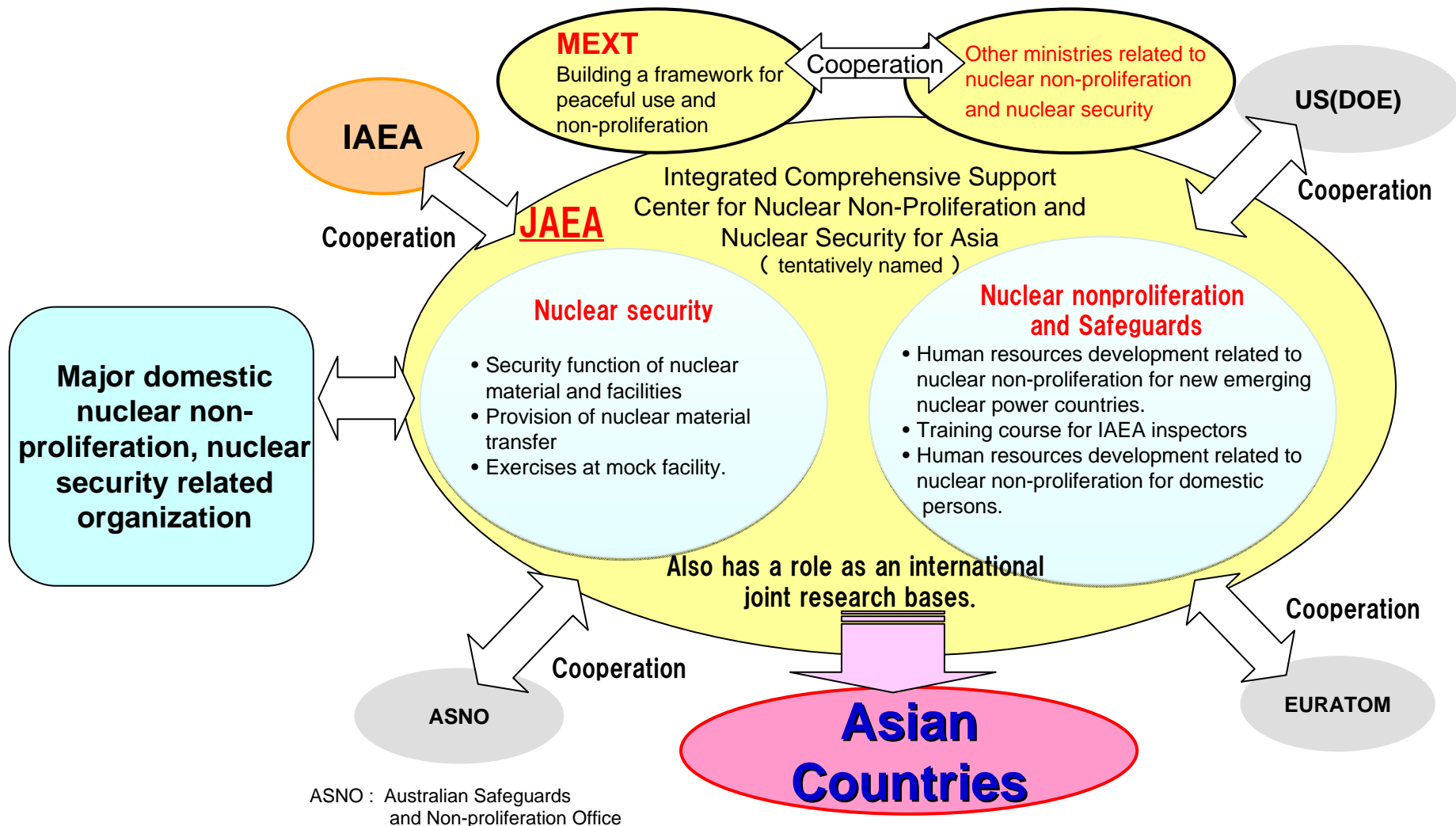
#### **(D) Hosting of a WINS Conference**



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# Structure of Integrated Comprehensive Support Center for Nuclear Non-Proliferation and Nuclear Security for Asia (tentatively named)



**Support for capacity-building efforts including education and training and for infrastructure development in Asian countries in particular.**

Japan, and invited IAEA and US experts will serve as lecturers.  
Mock physical protection facilities and/or mock safeguards systems will be built for training

## Outline of Asia Integrated Support Program on Nuclear Nonproliferation and Nuclear Security (Tentative)

The Asia Integrated Support Program will provide training courses on nuclear security, nuclear nonproliferation, safeguards using mock-up nuclear facilities and class room lectures. Distinguished lecturers will be invited from U.S., IAEA and others. The Program will also provide assistance for infrastructure development on those for nuclear emerging states.

### Asia Integrated Support Program on Nuclear Nonproliferation and Nuclear Security

**Nuclear Security**

**Nuclear Nonproliferation  
Safeguards**

**Human Capital  
Development**

**Infrastructure  
Development**

**International  
Coordination and  
Collaboration**



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# Summary of Human Resource and Capacity Building Assistance

## 1. Training course on nuclear security

### 1 Expected participants

Nuclear Operators, Radioactive material users, Police, Coast Guards, Custom

### 2 Program contents

- (A) The design and evaluation process of a physical protection system in nuclear facility and a radioactive material handling facility
- (B) The design and evaluation process of a physical protection system in nuclear material transportation and radioactive material transportation
- (C) Detection of and response to an illegal act in which a nuclear material and a radioactive material out of regulatory control are involved

## 2. Training course on SG and SSAC

### 1 Expected participants

Nuclear facility operators, Government staff who have involved establishment of state system of accounting for, political officer, etc.

### 2 Program contents

- (A) IAEA system of safeguards
- (B) The national system of safeguards
- (C) Material accounting system
- (D) Domestic or IAEA Inspector training

## 3. Training Course on the international nuclear non-proliferation framework

### 1 Expected participants

Personnel of organizations which operate (plan to operate) nuclear facilities

Government officials who are responsible for the development of domestic legislation in the field of nuclear non-proliferation and nuclear security

### 2 Program contents

- (A) History and recent global trend of peaceful use of nuclear energy and nuclear non-proliferation
- (B) International framework to ensure nuclear non-proliferation
- (C) Japan's efforts to ensure compatibility between peaceful use of nuclear energy and nuclear non-proliferation



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## 6. Summary

We'd like to contribute for Asia-Pacific region as follows:

- **Promoting peaceful uses of nuclear energy in the Asian and Pacific region while securing nuclear nonproliferation and nuclear security**
- **Contribution for human capital development and infrastructure development in the area of nuclear nonproliferation and nuclear security**
- **Welcome all the member state of APSN to join in the nearly established training center!**

