

*Open Seminar on 5th Anniversary of Workshop of Nuclear Security  
and Safeguards Project, September 8, 2015  
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# **Introduction of Five Years' FNCA Project Activities on Nuclear Security and Safeguards Project (NSSP)**

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&**

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# Background of the Forum for Nuclear Cooperation in Asia (FNCA)(1)

- ◆ FNCA is a Japanese government-led cooperation framework for the peaceful use of nuclear technology in Asia.
- ◆ Forum for Nuclear Cooperation in Asia (FNCA) was established in 2000 under the initiative of Japan, where 12 member countries are cooperating to promote application of nuclear technology in the fields of human health, agriculture, industry, nuclear power, environment, nuclear safety, and human resource development on an equal partnership.
- ◆ The Nuclear Security and Safeguards Project (NSSP) which started in 2011 within the framework of FNCA, aims to cooperate with FNCA member countries in order to strengthen their infrastructure for nuclear security and safeguards.

# Background of the Forum for Nuclear Cooperation in Asia (FNCA)(2)

## ◆ FNCA Member Countries ; 12

Australia, Bangladesh, China, Indonesia, Japan, Kazakhstan, Korea, Malaysia, Mongolia, Philippines, Thailand and Vietnam.

## ◆ FNCA Projects;

- At present, FNCA's 10 projects are being conducted in various nuclear energy fields.
- Each project promotes information exchanges, joint research, debates on common challenges and holds a workshop annually.
- Each project also reports information exchanges, research results and provides guidelines/manuals on which activities in Asian countries should be based.

# The FNCA Framework



# Resolutions of Ministerial Level Meeting regarding NSSP(1)

## ◆ 11<sup>th</sup> Meeting (November 18, 2010, China)

Enhancing mutual effort for nuclear energy infrastructure development, in particular for nuclear safety, security and nonproliferation/safeguards, recognizing that this infrastructure is essential for the safe and peaceful use of nuclear energy



## ◆ 12<sup>th</sup> Meeting (December 16, 2011, Japan)

Cooperating to establish sound nuclear infrastructure such as nuclear safety, security and safeguards/non-proliferation, including through the activities under the FNCA projects

## ◆ 13<sup>th</sup> Meeting (November 24, 2012, Indonesia)

Assuring the visibility of project activities and outcomes to relevant ministers in member countries to sustain ongoing support

## Resolutions of Ministerial Level Meeting regarding NSSP(2)

### ◆ 14<sup>th</sup> Meeting (December 19, 2013, Japan)

Encouraging each country's government and its nuclear stakeholders to build a nuclear security culture in line with international best practices as a response to nuclear security concerns arising in the world

### ◆ 15<sup>th</sup> Meeting (November 19, 2014, Australia)

Continuing to enhance building nuclear security culture through HRD activities with the recognition of the importance of nuclear security in the Asian region where further development of nuclear utilization is expected

**Topics**; As follow-up on the 14th Ministerial Level Meeting,

Presentations and discussions in this meeting were made on nuclear security culture development, and the importance of involving top management in nuclear security culture development

## **Establishment of Nuclear Security and Safeguards Project**

- ◆ **NSSP was established in JFY 2011**, regarding the Resolutions of the 11th & 12th FNCA Ministerial level Meetings.
- ◆ The project is aimed at sharing experience in, knowledge of, and information on nuclear security and safeguards implementation and exchanging views on policies, strategies and frameworks for better performances in these areas.

### **◆ The project is expected to;**

- 1) raise the awareness of the importance of nuclear security and safeguards,
- 2) facilitate information sharing in these areas,
- 3) promote capacity building efforts in these areas, and
- 4) enhance the regimes of nuclear security and safeguards by sharing information on technical tools and requirements of nuclear security and safeguards.

**The IAEA has been invited to the workshop as observers. JAEA/ISCN has fully supported the activities of NSSP.**



# 1<sup>st</sup> Workshop (February 22 - 24, 2012, Japan)(1)

## Agenda

- **Session 1, Nuclear Security**: International Initiatives for Assuring Nuclear Security
- **Session 2: Safeguards** -Trends in IAEA Safeguards Implementation 2012 & Importance of Additional Protocols (AP) for Nuclear Nonproliferation
- **Session 3,4-Country Reports & Session 5-Country Report Summary**
  
- **Session 6,7,8,9,10: Round Table Discussions**
  - ✓ Nuclear Security
  - ✓ Safeguards
  - ✓ Nuclear 3S (Safety, Safeguards, Security)
  - ✓ Collaboration with the IAEA, APSN and Other Multilateral Frameworks
  - ✓ Human Resource Development (HRD) for Nuclear Security and Safeguards





# 1<sup>st</sup> Workshop (February 22 - 24, 2012, Japan)(2)

## Outcome

- ◆ **Country Reports:** Importance of nuclear security and safeguards to promote the peaceful use of nuclear power was emphasized, and each member country provided the experience and knowledge of nuclear security and safeguards implementation.
- ◆ **Discussions:** Each member country agreed on the importance of cooperation with each other in strengthening the infrastructure of nuclear security and safeguards, in collaboration with other multilateral frameworks such as the IAEA, the Asia-Pacific Safeguards Network (APSN).
- ◆ **Round- Table Discussions:** implementation of nuclear 3S (Safety, Safeguards, Security), collaboration with other multilateral frameworks, opportunity to share information and views on HRD. Discussions showed how important it is to share experiences and knowledge among each member country in implementing nuclear security and safeguards.

Each member country agreed to cooperate with each other for the enhancement of nuclear security and safeguards, in collaboration with other multilateral frameworks effectively.

## 2<sup>nd</sup> Workshop (December 18 - 21, 2012, Vietnam)

- ◆ **Country Reports** :Activities for nuclear security and safeguards.
- ◆ **Reports and Discussions** : International developments and initiatives towards enhancing nuclear security regime, summary of the 2nd Nuclear Security Summit, necessary infrastructure for effective SSAC, and national regulatory capacity building efforts for safeguards.
- ◆ **Round-Table Discussions**: Nuclear 3S and capacity building for nuclear security and safeguards, and exchanged about methods to achieve interface among 3S
- ◆ **AP Open Seminar** : Collaboration with APSN
  - IAEA presentation: Importance of AP, AP Declaration and Complementary Access (CA)
  - Country reports: Experiences and efforts in AP implementation, followed by sharing of good practices of the AP
  - Discussion: Assistance necessary for countries which are going to ratify AP in the future.



# Open Seminar on Additional Protocol

## Co-organized by FNCA& APSN

December 21, 2012, Hanoi, Vietnam as a Host Country

### ◆ Agenda

- **Session 1: Importance of Additional Protocol (AP)**

Background of the establishment of AP, Purposes of AP, Why AP is important in what ways in the context of nuclear nonproliferation, Q&A

- **Session 2: AP Declarations**

The requirements for state's AP declarations and differences from those for its reporting under Comprehensive Safeguards Agreement,

Important points in IAEA's "Guidelines an Format for Preparation and Submission of Declarations Pursuant to Articles 2 and 3 of the Model Protocol Additional to Safeguards Agreement.", Q&A

- **Session 3: Complementary Access (CA) under AP**

Purposes of CA and activities carried out under CA, What is managed access and what procedures are involved in managed access, Necessary procedures for CA preparation and implementation, Q&A

- **Session 4: Experience-Sharing on AP Implementation**

Presentations: By Vietnam, Philippines, Indonesia, Australia, and Kazakhstan

- **Session 5: International Support Activities for AP Universalization**

- **Session 6: Discussions on Efforts towards Effective Implementation of AP**



## 3<sup>rd</sup> Workshop (February 26-28, 2014, China)

3<sup>rd</sup> WS focused on HRD, Good Practices in enhancing Nuclear Security Culture, Safeguards(State-Level Approach Implementation), and 3S 's interface (safety, safeguards, security).



- ◆ **Presentations:** Progress of activities for nuclear security and safeguards in the respective countries including nuclear security culture and capacity building
- ◆ **Reports from the IAEA:** International Conference on Nuclear Security(July 2013) and 2014- 2017 Nuclear Security Plan
- ◆ **Round-Table Discussions:** HRD, Good Practice in Enhancing Nuclear Security Culture, and 3S 's interface. In the discussions on nuclear security culture, based on the Chair's statement at the 14<sup>th</sup> FNCA Ministerial Level Meeting held in December 2013, it was proposed that initiatives and best practices of nuclear security culture development can be shared among FNCA member countries by utilizing the FNCA website, toward the development of nuclear security culture in the Asian region.

# 4<sup>th</sup> Workshop (November 5-7, 2014, ROK)

◆ **Country Reports:** Recent development and improvements in implementation of nuclear security and safeguards, nuclear security culture, status of relevant legal frameworks.

◆ **Discussions on Capacity Building:**

All countries noted their cooperation with international or regional organizations and other countries to strengthen SGs and security capacity. Most of the countries stated that they have taken initiatives to develop human resources by organizing training courses, seminars, and workshops, as appropriate, with the cooperation of the IAEA and other organizations.

◆ **Round-Table Discussions:**

- Centers of Excellence (CoEs) were established in Korea, Japan, and Indonesia and one will be established in China, 2015. Participants discussed about the future role of CoEs and cooperation between them for effective and efficient education and training in nuclear security as well as nuclear nonproliferation.
- The participants agreed to share and update more information on their national nuclear security and safeguards. Inter alia, information security will be more focused in the next workshop for protecting confidential information security culture in the Asian region.



## Summary of the 4<sup>th</sup> Workshop on the Project

### Day 1: Session 1 & 2-Country Reports

#### Summary of Independence of Regulatory Authority

◆ **Independent:** Australia (ASNO), Indonesia (BAPETEN), Japan (NRA), ROK (NSSC), Bangladesh (BAERA)

◆ **Semi-Independent**\*: Kazakhstan (NNC), Malaysia (AELB), Mongolia (NRRRA), Thailand (OAP), Vietnam (VARANS)

\*The regulatory agency is under a governmental body or ministry to which a nuclear promotion agency belongs

◆ **No Independence:** Philippines (PNRI)

#### Recent Development

Malaysia, Philippines, Thailand, Vietnam: Developing acts to establish independent regulatory bodies

## Country Reports; Summary of Safeguards Implementation of International Treaties and Agreements

- Member of **NPT** (Nuclear Nonproliferation Treaty): 12/12 states
- **CSA** (Comprehensive Safeguards Agreement) in Force: 12/12 states
- **AP** (Additional Protocol) in Force: 10/12 states
- **IS** (Integrated Safeguards): 5/12 states

	NPT Member	CSA in Force	AP in Force	I S
Australia	○	○	12 Dec. 1997	○
Bangladesh	○	○	30 Mar. 2001	○
China	○	VOA in force	28 Mar. 2002	n/a
Indonesia	○	○	29 Sep. 1999	○
Japan	○	○	16 Dec. 1999	○
Kazakhstan	○	○	9 May 2007	
Malaysia	○	○	(Signed: 22 Nov. 2005)	
Mongolia	○	○	12 May 2003	
Philippines	○	○	26 Feb. 2010	
ROK	○	○	19 Feb. 2004	○
Thailand	○	○	(Signed: 22 Sep. 2005)	
Vietnam	○	○	17 Sep. 2012	



## Country Reports; Summary of Nuclear Security Implementation of International Treaties and Conventions

- **CPPNM** (Convention on the Physical Protection of Nuclear Material): 10/12 states
- **CPPNM Amendment\***: 7/12 states
  - \*IAEA Recommendation INFCIRC 225/Rev5 consistent with the Amendment
- **Nuclear Terrorism Convention** (International Convention for the Suppression of Acts of Nuclear Terrorism): (11/12 states committed)

Ratification: 5 states, Accession: 1 state, Acceptance: 1 state, Signature: 3 states

	CPPNM	CPPNM Amendment	Nuclear Terrorism Convention
<b>Australia</b>	21 Jan 1989 in force	ratification 17 Jul 2008	Ratification 16 March 2012
<b>Bangladesh</b>	10 Jun 2005 in force		accession 07 Jun 07
<b>China</b>	09 Feb 1989 in force	ratification 14 Sep. 2009	ratification 8 Nov 2010
<b>Indonesia</b>	08 Feb 1987 in force	ratification 27 May 2010	*Understands the Convention's importance and may start ratification process
<b>Japan</b>	27 Nov 1988 in force	ratification 17 Jun 2014	acceptance 02 Oct 07
<b>Kazakhstan</b>	02 Oct 2005 in force	ratification 26 Apr 2011	ratification 31 Jul 08
<b>ROK</b>	08 Feb 1987 in force	Ratification 29 May 2014	Ratification 29 May 2014
<b>Malaysia</b>			signature 16 Sep 05
<b>Mongolia</b>	08 Feb 1987 in force		ratification 06 Oct 06
<b>Philippines</b>	08 Feb 1987 in force		signature 15 Sep 05
<b>Thailand</b>			signature 14 Sep 05
<b>Vietnam</b>	03 Nov 2012 in force	ratification 03 Nov 2012	

## Country Reports; Summary of Training Programs: Capacity Building(1)

	Provider of training	Security	SG	Others	Cooperation with
<b>Australia</b>					IAEA, US/DOE, JAEA
<b>Bangladesh</b>	BAEC	○		Border control, nuclear engineering	IAEA, US/DOE, Russia
<b>China</b>	SNSTC	○	○		IAEA, US/DOE
<b>Indonesia</b>	BAPETEN	○	○		US/DOE, APSN
<b>Japan</b>	ISCN	○	○		IAEA, US/DOE, EC/JRC
<b>Kazakhstan</b>	NSTC				US, UK, Russia
<b>Korea</b>	KINAC/INSA	○	○	Export control	IAEA, US/DOE
<b>Malaysia</b>	AELB	○		Border control, emergency preparedness	IAEA
<b>Mongolia</b>	NEA	○		Border control	US/DOE
<b>Philippines</b>	PNRI	○	○	Border control	IAEA, US/DOE, ANSTO
<b>Thailand</b>	OAP, DFT	○	○	Export control	IAEA, ASNO, US/DOE, JAEA
<b>Vietnam</b>	VARANS	○	○	Rad detection	IAEA, US/DOE, JAEA

## **Country Reports; Summary of Nuclear Security (and Safeguards) Training Centers Capacity Building (2)**

### **◆ COEs in operation**

Japan: ISCN (2010), ROK: INSA (2014), Indonesia: I-CONSEP (2014)

### **◆ COEs under construction**

China: COE under SNSTC (2015), Kazakhstan: Nuclear Safety Training Center

### **◆ COEs planned to be established**

Vietnam: Technical Support Centre for Safeguards and Security,  
Philippines: National Security Support Center

# Presentation Regarding FNCA/NSSP

**INMM 56<sup>th</sup> Annual Meeting**

**July 12-16 2015,**

**Indian Wells,**

**California, USA**



- ◆ **Title :Current Activities and Future Challenges of FNCA's Nuclear Security and Safeguards Project (NSSP)**
- ◆ **From Masao SENZAKI, Project Leader of NSSP /FNCA & Senior Fellow, Japan Atomic Energy Agency (JAEA)**
- ◆ **Outline of Presentation**
  - Background &Framework of FNCA
  - Resolutions of Ministerial Level Meeting regarding NSSP
  - Establishment & Activities of NSSP
  - Future Challenges, others

# FNCA/NSSP Web Menu

[http://www.fnca.mext.go.jp/english/nss/e\\_introduction.html](http://www.fnca.mext.go.jp/english/nss/e_introduction.html)

- ◆ Project Review
- ◆ Introduction of the Project Leaders
- ◆ Country Report Summary
- ◆ Domestic Authorized Agency for 3S
- ◆ Table of the Information on Nuclear  
Security Culture Development
- ◆ Outcomes of WS



# Future Challenges (1)

## 1. 2015-2016 Action Plans

- ◆ To update the summary of country reports on nuclear security and safeguards, tabulate the information on nuclear security culture, and tabulate the information on regulatory authorities for nuclear 3S on the FNCA websites
- ◆ To report on current/planned regulations for protecting confidential information
- ◆ To have a continuous discussion on information security at the next workshop
- ◆ To co-host of an open seminar on nuclear security culture and safeguards awareness with APSN for collaboration

Note: We already jointly hosted an open-seminar on Additional Protocol with APSN at the 2<sup>nd</sup> FNCA WS in Vietnam.

## **Future Challenges (2)**

### **2.Enhancing Knowledge and Information**

Some member countries have the plans for construction of nuclear power plants. Enhancement of knowledge of and information about nuclear security and safeguards has been emphasized as an urgent priority. In this regard, member countries fully exchange information on these fields, collaborating with the IAEA, in order to encourage and promote 3S by design and of culture as well as sharing good practices.

### **3.Coordination with other FNCA's Initiatives**

Coordination and Harmonization of Various Capacity Building Support Initiatives in the FNCA Framework are important. ISCN takes a leading role for the collaboration and cooperation of COEs among Japan, ROK, China, and other countries.

### **4.Collaboration with International Organization**

To more strengthen the collaboration between FNCA/NSSP and international organization (IAEA, APSN, others)



# Thank you for your attention

TOP About FNCA FNCA Meeting Coordinators Panel Project Brochure / Newsletter



## About FNCA

FNCA is a Japan-led cooperation framework for peaceful use of nuclear technology in Asia. The cooperation consists of FNCA meetings and the project activities with the participation of Australia, Bangladesh, China, Indonesia, Kazakhstan, Korea, Malaysia, Mongolia, Philippines, Thailand and Vietnam.



## what's new

- Apr 9, '15 16th FNCA Coordinators Meeting (Mar 4th - 6th, 2015 Tokyo)
- Mar 24, '15 Electron Accelerator Application Project Workshop (Feb. 9 - 12, 2015 Indonesia)
- Mar 23, '15 Biofertilizer Project Workshop (Nov 24 - 27, 2014 Malaysia)
- Mar 23, '15 Mutation Breeding Project Workshop (Jan. 27 - 30, 2015 China)

## The FNCA Framework



Nuclear Infrastructure Strengthening

Nuclear Security and Safeguards

-- Select a Project --

## MENU



- Project Review
- Introduction of the Project Leaders
- Country Report Summary
- Domestic Authorized Agency for 3S
- Table of the Information on Nuclear Security Culture Development

## Workshop

## Nuclear Security and Safeguards Project

At present, many Asian countries have been considering the introduction of nuclear power behind the trend of a "Nuclear Renaissance". For this reason, dramatic increase of nuclear material is expected, and nuclear security and nuclear safeguards in order to promote peaceful use of nuclear power will become more important. This project aims to remind FNCA countries of the importance of nuclear security as well as nuclear safeguards, and to support human resource and infrastructure development through information exchange and discussion on approaches by FNCA countries.



Forum for Nuclear Cooperation in Asia

**FNCA WEB: <http://www.fnca.mext.go.jp/english/index.html>**