

# Sustainable Development of Nuclear Security Capacity: Human Resource Development



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**Open Seminar on Nuclear Security Capacity Building**

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# Global Efforts for Nuclear Security: The Nuclear Security Summits (2010-2016)

The Summits demonstrated the political commitment of participating countries at the highest level.



2010 Washington DC, USA



2012 Seoul, Republic of Korea



2014 The Hague, The Netherlands



2016 Washington DC, USA

# Significant Progress in Global Nuclear Security through the Summit Process

Over 300 national security commitments were made, over three-quarters have been implemented.

- Nuclear material removed or eliminated
- Treaties ratified and implemented
- Reactors converted
- Regulations strengthened
- **COEs and NSSCs launched**
- Technologies upgraded
- **Capabilities enhanced**

# Strengthening Nuclear Security Capability beyond 2016

- 2016 Washington Nuclear Security Summit: the last Summit in the current format
- Need to sustain the momentum of the Summits – not to slow down or halt the global/regional/national efforts on capacity building
- 5 Action Plans in support of the key enduring institutions and initiatives related to nuclear security: UN, IAEA, INTERPOL, GICNT and Global Partnership
  - IAEA will play the leading role to promote political commitment, enhance awareness and keep momentum on strengthening the global nuclear security architecture

# Human Resource Development for Sustainable Nuclear Security Enhancement

## Human resource - foundation of a state's nuclear security infrastructure

- Urgent needs for building human capacity in the region
  - Law maker, policy maker
  - Regulatory authority: inspectors
  - Licence holders
  - Response forces
  - Local government officials
  - Private sectors: industries, hospitals, academics, etc.
  - Public / media

# Effective Human Capacity Building

- Need a long-term human resource development plan or strategy for sustainable development
- Reach out to the wide variety of stakeholders in nuclear security
- Increase opportunities for training/education
- Use limited resources (training opportunities, lecturers, course topics, etc.) effectively
- Meet the different needs from each stakeholder
- Control quality of training/education
- Develop training tools/facilities



Promotion of International Cooperation – Work together

# Key Players: Center of Excellence and Training Centers

## Center of Excellence (COE) and training centers

- Develop human resources through tailored training program
- Develop a network of experts
- Provide technical and scientific support

## Establishment of COEs in the Nuclear Security Summit Process

- National commitments
- Joint Statement (24 states in 2012 to 30 states and 2 international organizations in 2016)
- COE networks for cooperation

# Variety of Activity Scope of COEs/NSSCs

## Organizational characteristics:

- Governmental institution (e.g., Regulatory Body)
- Private institution (e.g., Licence Holders, academics, etc.)

## Target audience:

- International / regional
- Domestic
  - ✓ focusing on the single organization
  - ✓ multiple organizations

## Training topics:

- all aspect of nuclear technology: safety, radiological material management, security, and safeguards
- limited scope of nuclear security: physical protection, nuclear security culture, response force training, material detection/forensics

## Curriculum and materials:

- Original courses with in-house lecturers
- Hosting courses developed by the IAEA or other international partners



# Network of Training Centres: NSSC Network

## Nuclear Security Support Centres (NSSC) Network

- Organized by the IAEA
- NSSC: a means to ensure the sustainability of nuclear security in a state
  - ✓ Develop human resources through tailored training program
  - ✓ Develop a network of experts
  - ✓ Provide technical and scientific support
- Promote high level nuclear security training
- Facilitate cooperation and assistance activities, to optimize the use of available resources
- Contribute to the development of nuclear security training standards
- **Asia Regional Network (ARN) - Japan, Republic of Korea, China**

# Asia Regional Network (ARN)

**Japan:** Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN)

**Republic of Korea:** International Nuclear Nonproliferation and Security Academy (INSA)

**China:** State Nuclear Security Technology Center (SNSTC)

## ARN Activities

### **1. Exchange information on each other's training activities**

- Annual meeting at IAEA NSSC Network, side-meeting of other initiatives, tele-con

### **2. Share Good Practices among COEs**

- Mutual dispatch of observers/participants to each other's training courses
- Site visit to training facilities

### **3. Share Resources among COEs**

- Mutual dispatch of lecturers/instructors

# 2016 Washington Summit: Action Plan for the IAEA

- Advocate for the IAEA to coordinate the cooperation and complementary activities between Centres of Excellence (COEs) and other relevant centres, including through the Nuclear Security Support Centre (NSSC) and International Nuclear Security Education Networks, to promote their sustainability.
- Advocate for the IAEA to develop for COEs/NSSCs a process for sharing good practices, requesting peer review and harmonizing of their course content on the basis of the Nuclear Security Series.
- Support regional networks on nuclear security in conjunction with the IAEA.

# 2016 Washington Summit: Joint Statement on Nuclear Training and Support Centres

- Strengthening NSSC Network
  - Join the Network and take part in the IAEA NSSC Network activities
- Establishment of regional networks
  - Asia Regional Network (ARN) as the model
- Strengthening nuclear security training programmes
  - Improve the quality of training by conducting peer review exchanges with other nuclear security COEs/NSSCs
  - Share experiences of nuclear security training with other COEs/NSSCs
- Sustainability
  - build mechanisms to ensure the sustainability of COEs/NSSCs
- Cooperation
  - Engage industry and civil society, promote public confidence in nuclear security

# Regional Cooperation on Human Capacity Building

Regional Platform for Cooperation:

- **Forum on Nuclear Cooperation in Asia (FNCA): Nuclear Security and Safeguards Project**
- Asia Regional Network (ARN) of IAEA NSSC Network
- ASEAN Centre for Energy (ACE): ISCN-ACE Seminar
- ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM)
  - ✓ Sharing experiences of member states on nuclear security human capacity building
  - ✓ Raising awareness of the issue in the region
  - ✓ Hosting workshops (practical, awareness raising, information sharing)
  - ✓ Promoting nuclear security culture
  - ✓ Meeting on the regular basis

# Other International Framework (1)

## International Nuclear Security Education Network (INSEN)

- Partnership between IAEA and educational and research institutions
- Network for higher education in nuclear security
  - ✓ Development of education materials
  - ✓ Mutual faculty exchanges, joint development and implementation of in-depth training program
  - ✓ Joint research and development activities to share scientific knowledge and infrastructure
  - ✓ Student exchange programs to foster international cooperation and exchange of information
- INSEN-NSSC cooperation
  - ✓ Sharing point of contacts
  - ✓ Sharing trainings and education materials

## Other International Framework (2)

### Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)

- ✓ Established in 2002: G-8 initiative
- ✓ nuclear security, biosecurity, scientist engagement, and implementation of 1540

### COE and CBRN Sub-working Group Network

- ✓ Determine and promote potential areas of coordinated, strategic training among CBRN training centers
- ✓ Match-making activities: information sharing of training, promote collaboration among COEs
- ✓ Collaboration with IAEA INSEN, EU CBRN COEs

### 2016 Washington Summit: Action Plan for GP

- ✓ Provide assistance to and coordinate with COEs
- ✓ Work collaboratively with the NSSC Network

# Other International Framework (3)

## World Institute for Nuclear Security (WINS)

- ✓ Sharing good practices in nuclear security
- ✓ Workshops, seminars, professional development

## WINS Academy

- ✓ Certification program
- ✓ e-Learning
- ✓ “Demonstrable competence”





# FNCA-ISCN-Indonesia Open Seminar on Nuclear Security Capacity Building

FNCA: a platform for information/good practices sharing

- Mapping existing/planned capacity building activities in the region
- Identifying training needs
- Identifying areas of cooperation among the Member States

Open Seminar

- Further exploring the role of COEs/NNSCs to strengthen nuclear security capacity building in a sustainable manner
- A great opportunity to discuss the issue with the policy makers, regulators and practitioners on nuclear security in Indonesia
- Continuing the regional efforts on strengthening nuclear security beyond 2016



# Thank you for your attention.

**ISCN Website**

<http://www.jaea.go.jp/04/iscn/index.html>



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