



Nuclear Security Summits: From Washington and Seoul to the Hague

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Scope of the Problem



- On a global basis, there are roughly 1,440 metric tons of highly enriched uranium (HEU) and 500 metric tons of plutonium.
- There are nearly 40 countries with HEU or plutonium stocks.
- 435 commercial nuclear power reactors operate in 31 countries.
- 56 countries operate a total of about 240 research reactors, and a further 220 nuclear reactors power ships and submarines.
- There have been 18 documented cases of theft or loss of HEU or plutonium, and perhaps others not yet discovered.
- Currently, over 60 nuclear power reactors are being built globally, while about 160 reactors are planned and over 320 more are proposed.



Gaps in the Nuclear Security Regime

- **Lack of uniformity leading to vulnerabilities**
 - Domestic laws and regulations, international agreements, UN Security Council resolutions, ad hoc voluntary co-operative measures, IAEA recommendations
- **The “reactionary” development path in response to crises and other challenges**
 - Discrepancies, duplication, uneven protection across borders, different accountability measures
- **Incomplete and porous legal framework**
 - Low standard of universality, slow ratification process, lack of monitoring and enforcement structures
- **No mandatory nuclear standards or external verification systems**
 - IAEA services at the request of governments only; INFCIRC/225 as a recommendation.
- **A weak nuclear security mandate for IAEA**
 - A voluntary fund (around 30 million a year), long-term unpredictability of funding levels



Washington Nuclear Summit

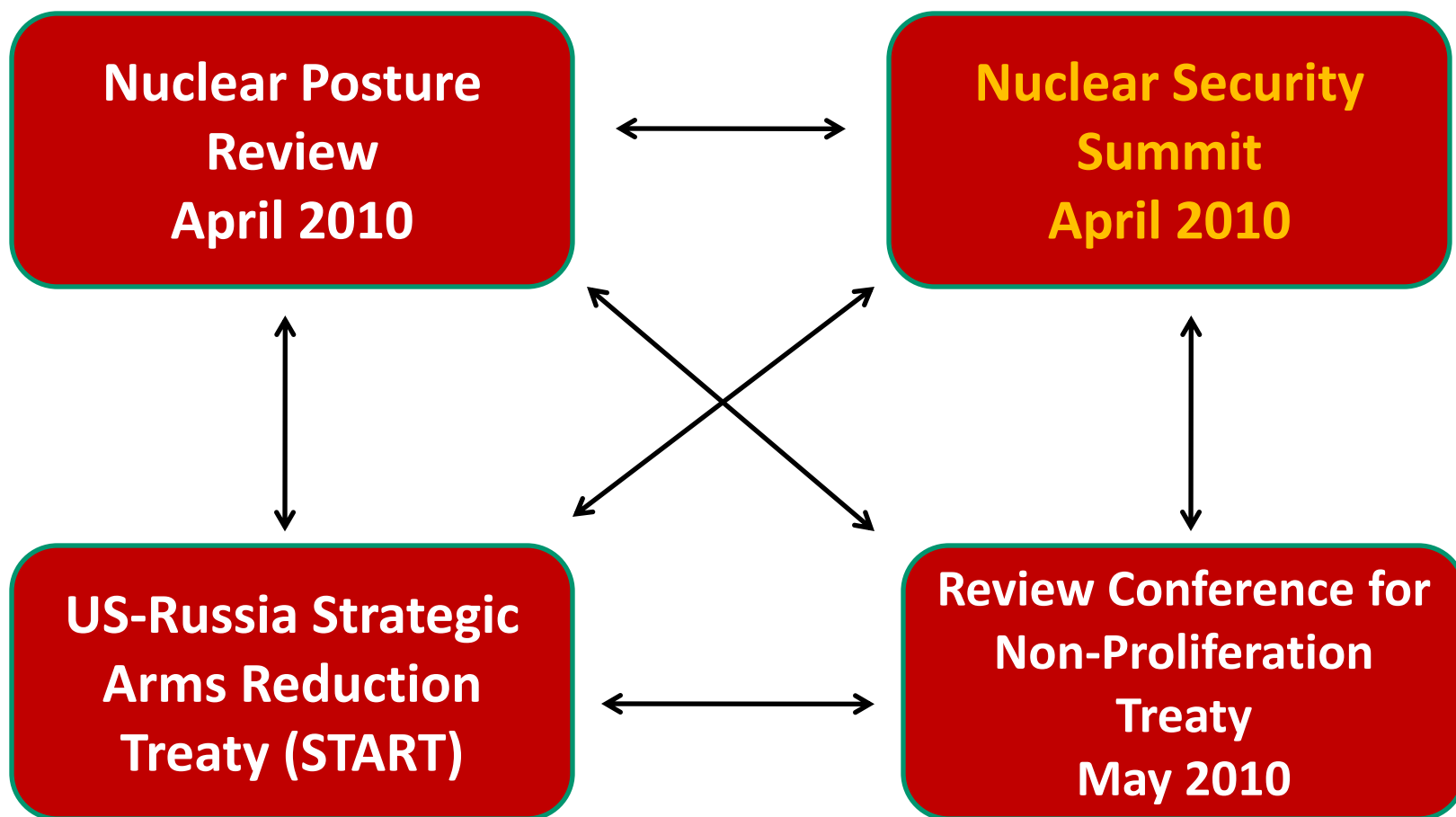
BACKGROUND AND INITIAL OBJECTIVES

- President Obama's strategy (April 5, 2009 in Prague):
 - Propose measures to reduce and eventually eliminate existing nuclear arsenals
 - Strengthen the Nuclear Non-Proliferation Treaty (NPT) and halt proliferation of nuclear weapons
 - Develop a new framework for international cooperation on nuclear energy
 - **Prevent terrorists from acquiring nuclear weapons or materials**





International Context





Comparing the Summits

Washington Summit, April 2010

- **47 states and 3 international organizations (UN, IAEA, and EU)**
- **Parallel Events: Industry Forum, NGO symposium**
- **Documents:**
 - Communiqué
 - Work Plan
 - National Commitments (“house gifts”)
- **Focus on HEU and Plutonium (weapon usable material)**

Seoul Summit, March 2012

- **53 states (new: Azerbaijan, Denmark, Hungary, Gabon, Hungary, Lithuania, Romania) and 4 international organizations (new: INTERPOL)**
- **Parallel events: Industry Forum, NGO Symposium**
- **Documents:**
 - Communiqué
 - Statements
 - National Commitments
- **New items included safety-security and radiological terrorism**

Seoul Nuclear Security Summit





Seoul Nuclear Security Summit

We, the leaders, gathered in Seoul on March 26-27, 2012, renew the political commitments generated from the 2010 Washington Nuclear Security Summit to work toward strengthening nuclear security, reducing the threat of nuclear terrorism, and preventing terrorists, criminals, or other unauthorized actors from acquiring nuclear materials.

Seoul Communiqué

What is nuclear security?

“The prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer, or other malicious acts involving nuclear material, other radioactive substances, or their associated facilities.”

IAEA Advisory Group on Nuclear Security



Seoul Nuclear Security Summit

- **Seoul Communiqué (11 areas)**
 - Global nuclear security architecture
 - Role of the IAEA
 - Nuclear materials
 - *Radioactive sources*
 - *Nuclear security and safety*
 - *Transportation security*
 - Combating illicit trafficking
 - Nuclear forensics
 - Nuclear security culture
 - *Information security*
 - International cooperation



Seoul Nuclear Security Summit

- **Statements:**
 - Statement on Nuclear Information Security (31 states):
 - Conduct a national assurance exercise
 - Full national implementation of export control regimes that exist in regulating material and technology transfers
 - Encouragement and facilitation of ethical codes or other self-governance pledges
 - Development of government processes to monitor and control the export of nuclear information, knowledge, and expertise from academic institutions
 - Security of Radioactive Sources (ROK-Vietnam- IAEA Pilot Radioactive Sources Tracking System)
 - Activity and Cooperation to Counter Nuclear Smuggling
 - Information sharing, through INTERPOL's recently established Radiological and Nuclear Terrorism Prevention Unit



Seoul Nuclear Security Summit

- **Statements**
 - National Legislation Implementation Kit on Nuclear Security (Indonesia's initiative supported by 18 states)
 - Development of a single and friendly reference kit involving all relevant organizations, with the IAEA as coordinator
 - Transport security (5 states)
 - Improving levels of procedure of physical protection
 - Improving levels of hardware of physical protection
 - Building the system of protecting the confidentiality of information
 - The first working group meeting to be held in Japan by 2013
 - Nuclear Training Centers



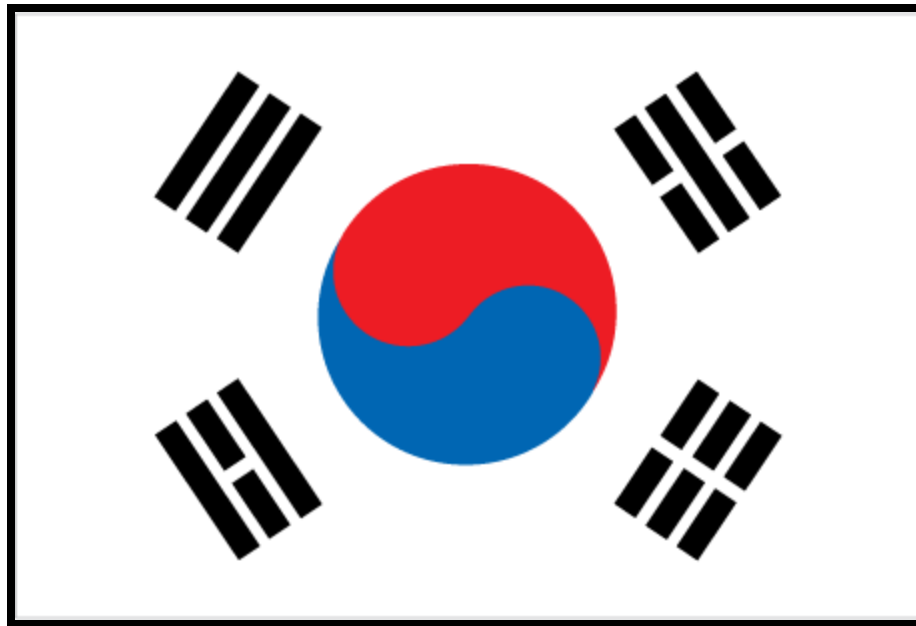
Seoul Nuclear Security Summit

- **Statements:**
 - HEU Minimization and Medical Isotopes Production (4 states)
 - Conversion of European production industries to non-HEU- based procedures by 2015
 - Contribution of the Global Initiative to Combat Nuclear Terrorism (GINCT) to Enhancing Nuclear Security
 - Nuclear Detection Working Group
 - Nuclear Forensics Working Group
 - Response and Mitigation Working Group



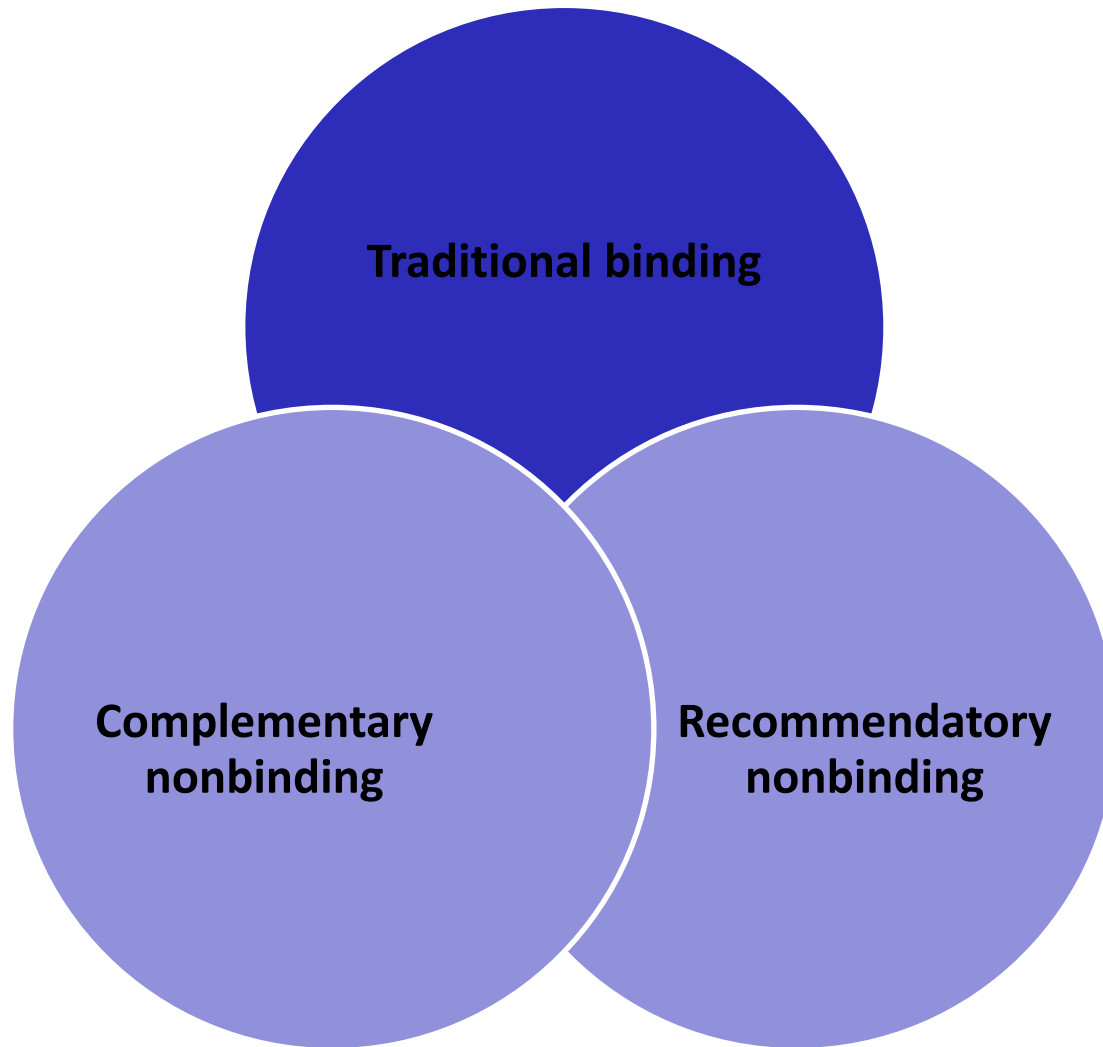
Why South Korea?

- A power center in an emerging multi-polar world
- Demonstrate commitment to nuclear security as a major exporter of nuclear technologies
- Promotion of indigenous nuclear power technologies
- DPRK factor





Legal Framework: Three Interacting Clusters





Legal Framework: Three Interacting Clusters

Traditional binding instruments

- **Under IAEA auspices:**
 - 1980 Convention on Physical Protection of Nuclear Materials (CPPNM)
 - 2005 Amendment to CPPNM (not in force, 64 ratifications)
 - 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (other safety related instruments)
- **Under UN General Assembly auspices:**
 - 1997 International Convention for the Suppression of Terrorist Bombing
 - 2005 International Convention for the Suppression of Acts of Nuclear Terrorism (a total of 14 conventions and 4 protocols of which 15 are in force and 3 are not: 2005 Amendment to CPPNM, the 2010 Convention (unlawful acts), and Protocol for Civil Aviation (unlawful seizures))
- **Under UN Security Council auspices (Chapter VII)**
 - UNSCR 1373 (2001)
 - UNSCR 1456 (2003)
 - UNSCR 1540 (2004)



Legal Framework: Three Interacting Clusters

Complementary nonbinding

- **Global Initiative to Combat Nuclear Terrorism (GICNT)**
- **Proliferation Security Initiative**
- **Nuclear Suppliers Group**
- **G8 Global Partnership**
- **Summits (Washington, April 2010 and Seoul, March 2012)**
- **Political declarations of national leaders in the uni- and multilateral contexts**

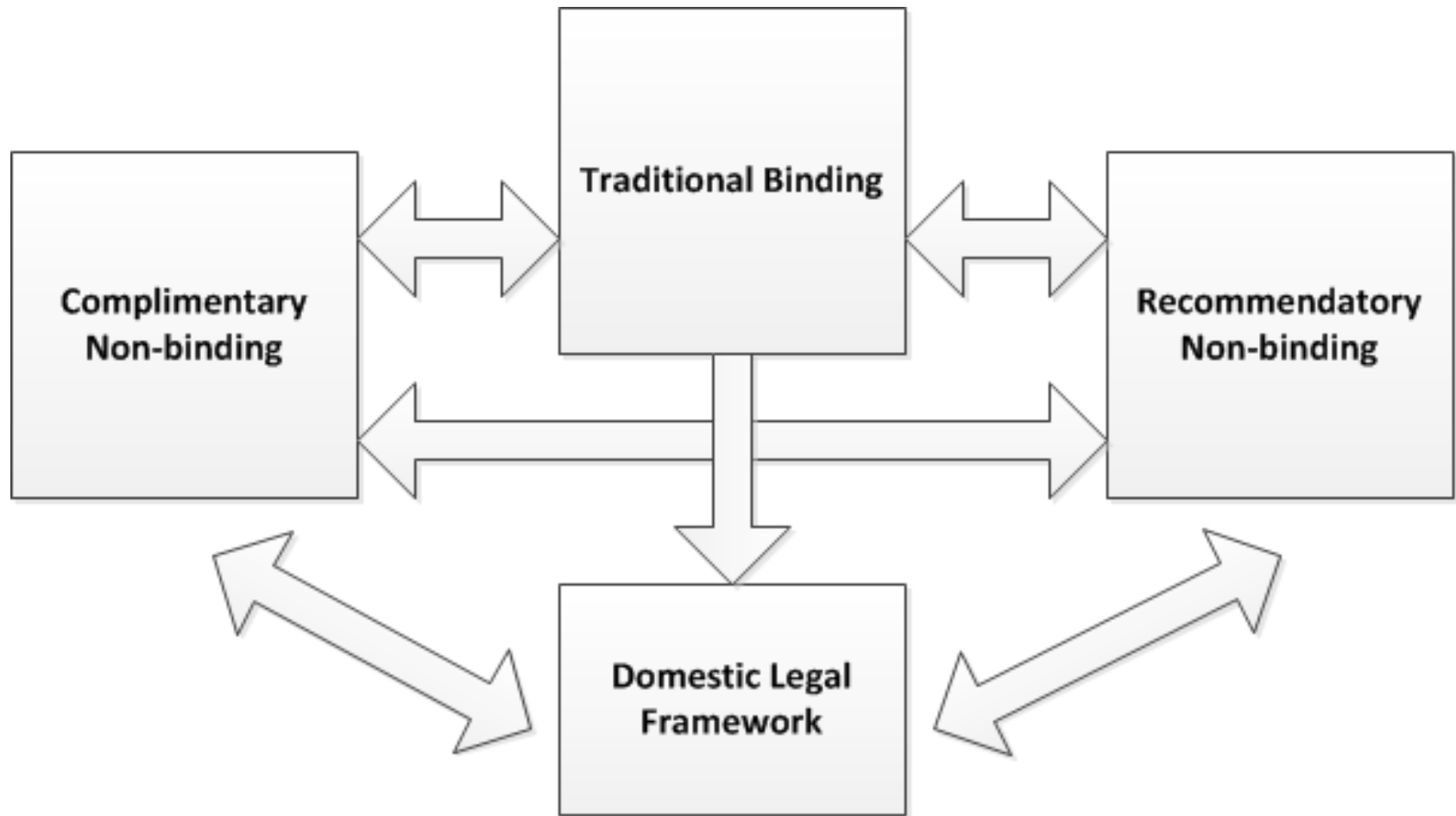


Legal Framework: Three Interacting Clusters

Recommendatory nonbinding

- **UN General Assembly and Security Council Resolutions**
- **2004 Code of Conduct on the Safety and Security of Radioactive Sources (IAEA)**
- **2005 Guidance on the Import and Export of Radioactive Sources (IAEA)**
- **1999 INFCIRC 225/Rev.5 (corr.), The Physical Protection of Nuclear Materials and Nuclear Facilities (IAEA)**
- **Nuclear Security Series documents (IAEA)**
- **Others**

Legal Framework: International and Domestic





The 2014 Nuclear Security Summit: The Netherlands

What's next?





Key Agenda Items for the 2014 Summit

- **HEU minimization (conversion of research reactors HEU -> LEU; HEU and Pu removal and disposition)**
- **The entering into force of the Amendment to the Convention on Physical Protection**
- **Support for the IAEA (IPPAS missions; a mandate change?)**
- **Control of radioactive sources (ideas of a legal instrument for other fora)**
- **Improved nuclear forensics capability**
- **Nuclear security culture as a cross-cutting element of security**
- **Involvement of all stakeholders including the industry, academia, and the public**
- **New items yet to be specified (export control, 3Ss – safety, security, safeguards, etc.)**



Beyond 2014

- **Building a more robust and sustainable nuclear security architecture as part of a global nuclear governance**
- **Options**
 - Transition of the Nuclear Security Summit agenda to the International Atomic Energy Agency (IAEA)
 - Continuation of the Summit model of selective multilateralism but at a lower level
 - Introduction of a regional model which would enable all countries within defined geographic areas to maintain the momentum and develop appropriate infrastructures
 - Conclusion of a framework agreement on nuclear security or a code of conduct for nuclear security
 - A combination of the above



Thank You

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