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Role of the IAEA and other International Organizations in the
Non-Proliferation Regime. IAEA Safeguards at a Glance

MGIMO UNIVERSITY, MOSCOW, OCTOBER 2015



International Control

1945

Hiroshima and Nagasaki



Use of first atomic bombs showed the urgency to bring nuclear energy under effective international control and to ensure that it would be used for peaceful purposes only

Early Initiatives



Jan 1946

United Nations Atomic Energy Commission

Mandate to develop proposals for the elimination of nuclear weapons and for the control of atomic energy



June 1946

The Baruch Plan

Nuclear disarmament with international control over nuclear activities

Atoms for Peace



Dec 1953

Atoms for Peace

To create an international organization responsible for promoting safe and peaceful uses of nuclear energy and verifying that nuclear technology is not misused

THE IAEA



1957
IAEA

- Intergovernmental organization
- Independent from the United Nations
- Direct access to the Security Council
- Headquarters in Vienna
- Established by the Statute
- 162 Member States (October 2015)

The IAEA at a glance (September 2015)

- 162 Member States
- 58 Years of Service since 1957
- 2550 Professional & Support Staff
- 342 M€ Regular budget + 170 M€ EB contribution, including 62 M€ for TCF
- 2 Liaison office (NY, Tokyo) and 8 int'l labs
- 1 M Monthly visit to the Agency's web
<http://www.iaea.org/>
- 1092 Technical Cooperation projects

Safeguards agreements in force with 182 States (126 with AP also), involving more than 2100 safeguards inspections per year

Around 200 Publications and newsletters issued per year.



IAEA Main Activities



Technology &
Applications

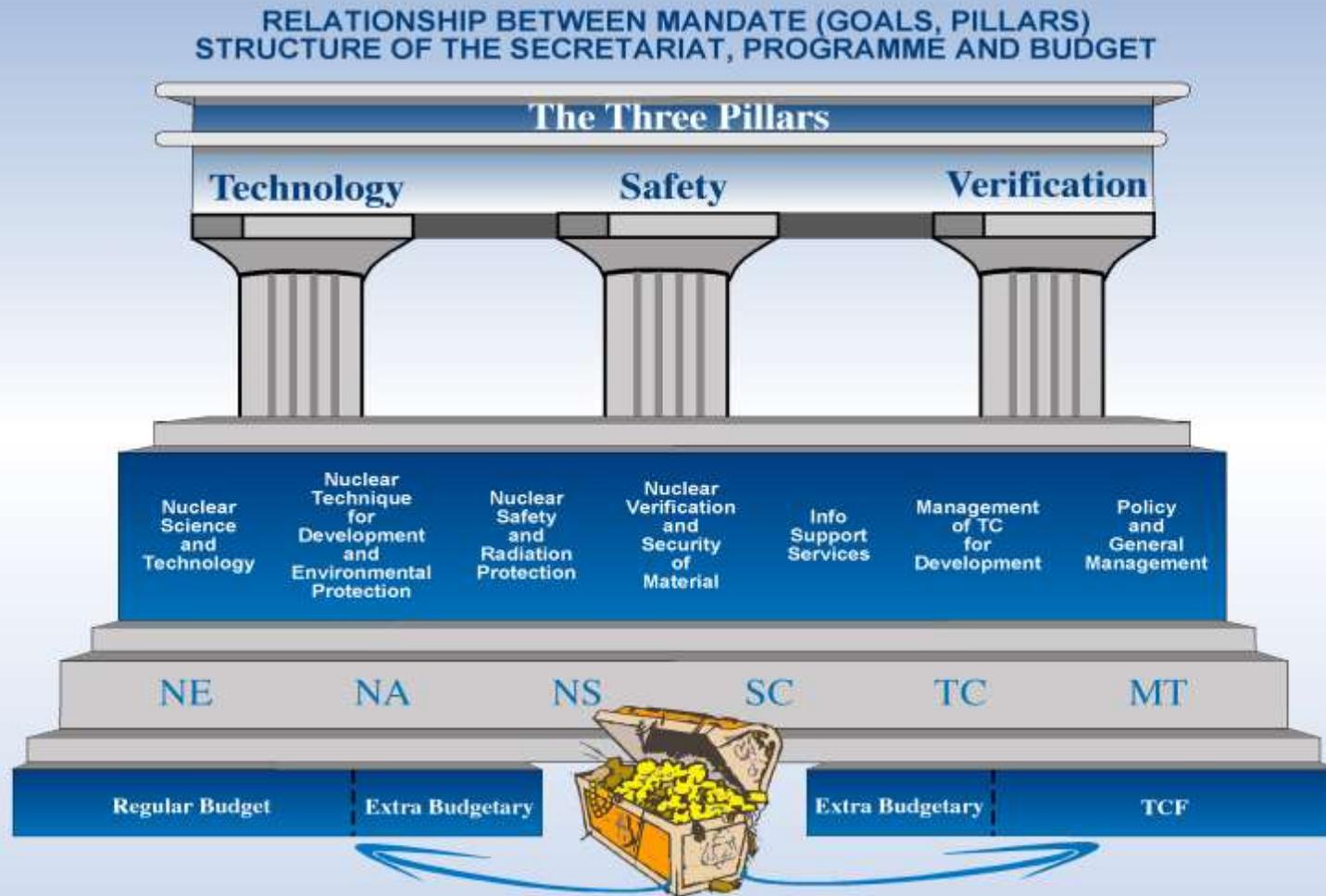


Safety &
Security



Verification &
Safeguards

Three “Pillars” of the IAEA



NE - Nuclear Fuel Cycle & Waste Technology

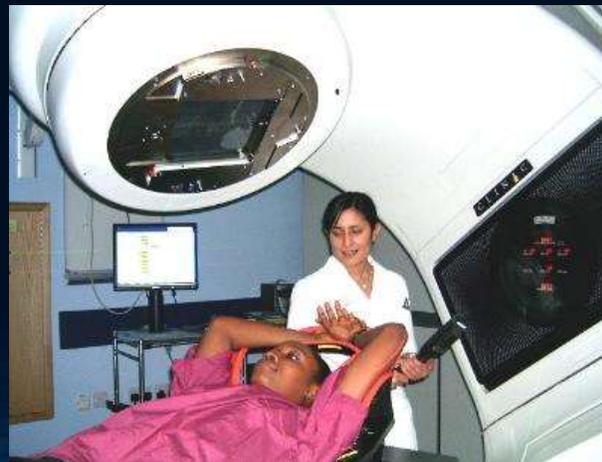
- Nuclear Fuel Cycle & Materials
- Waste Technology
- Research Reactors



Nuclear Sciences and Applications

Major Programme on Nuclear Techniques for Development and Environmental Protection:

- Food and Agriculture
- Human Health
- Water Resources
- Protection of the Marine and Terrestrial Environments
- Physical and Chemical Applications





Safety and Security



Two sets of activities priorities:

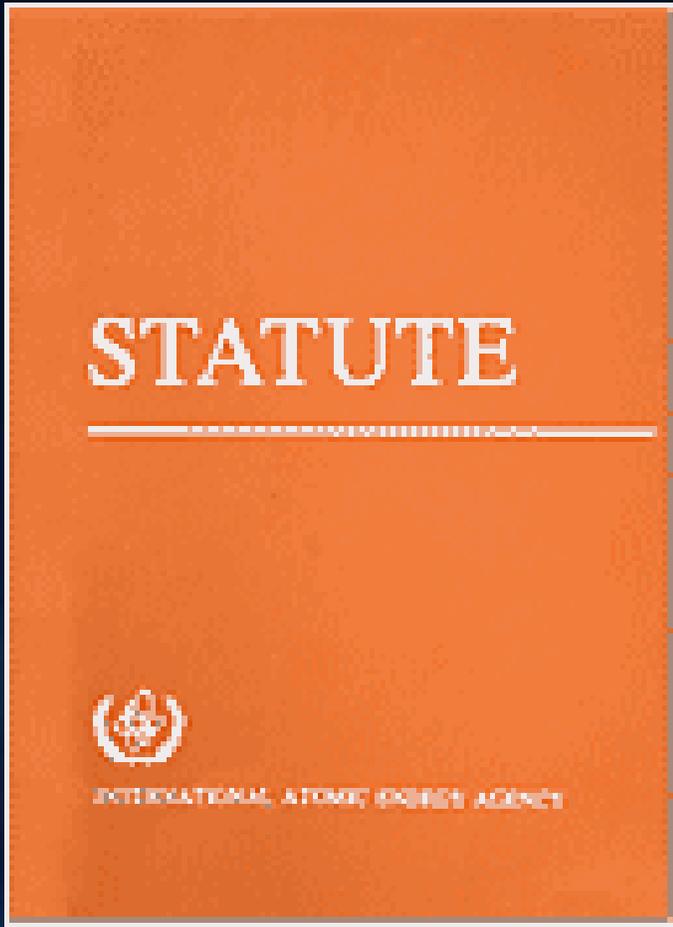
- In the **safety area**, they cover nuclear installations, radioactive sources, radioactive materials in transport, and radioactive waste. A core element is setting and promoting the application of international safety standards for the management and regulation of activities involving nuclear and radioactive materials.
- In the **security area**, they cover nuclear and radioactive materials, as well as nuclear installations and transport. The focus is on helping Member States to prevent, detect, and respond to terrorist or other malicious acts - such as illegal possession, use, transfer, and trafficking - and to protect nuclear installations and transport against sabotage.

Safeguards & Verification

- The IAEA is the world's nuclear inspectorate, with more than four decades of verification experience. Inspectors work to verify that safeguarded nuclear material and activities are not used for military purposes.
- The IAEA inspects nuclear and related facilities under safeguards agreements with more than 145 States around the world. Most agreements are with States that have internationally committed themselves not to possess nuclear weapons. These agreements are concluded pursuant to the global *Treaty on the Non-Proliferation of Nuclear Weapons (NPT)*, for which the IAEA is the verification authority.



IAEA Statute



IAEA authorized to establish and administer safeguards:

- **Article III.A.5**
 - Agency assistance
 - Any bilateral or multilateral arrangements at the request of the parties
 - Any nuclear activities of a State at its request
- **Article XII**
 - Fundamental features of IAEA safeguards

What are IAEA Safeguards?



Key technical means for verifying compliance by States with legally binding undertaking not to use nuclear material or facilities to develop nuclear weapons or other nuclear explosive devices

Treaties Requiring Safeguards

- Bilateral nuclear cooperation agreements
- Multilateral treaties:
 - **1970: NPT** – near universal
 - Regional treaties establishing NWFZs:
 - 1967: Tlatelolco
 - 1986: Rarotonga
 - 1997: Bangkok
 - 1996: Pelindaba
 - 2008: Central Asia
 - **All NWFZ Treaties entered into force**

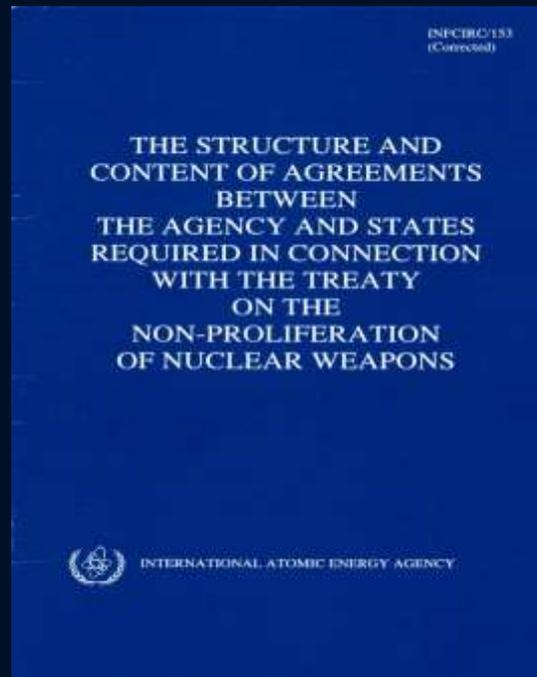


Types of Safeguards Agreements

- **Item Specific (INFCIRC/66/Rev.2)**
 - Safeguards system prior to the NPT
- **Comprehensive Safeguards Agreements (CSAs)**
INFCIRC/153 (Corr.)
 - Comprehensive safeguards in connection with the NPT and NWFZ Treaties
- **Voluntary Offer Agreements (VOAs)**
 - China, France, Russia, UK and US (NPT NWSs)

Comprehensive Safeguards Agreements

The Structure and Content of Agreements between the Agency and States required in connection with the Treaty on the Non- Proliferation of Nuclear Weapons INFCIRC/153 (Corr.)



Small Quantities Protocol (SQP)

State **eligibility** for SQP (GOV/INF/276, Annex B):

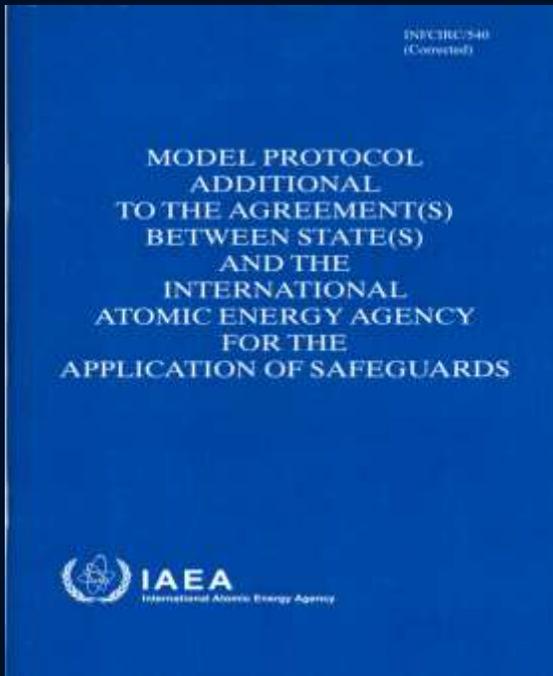
- Little or no nuclear material and
- No nuclear material in a nuclear facility

Holds in abeyance most of State's reporting and access requirements

Does not hold in abeyance:

- Obligation not to divert nuclear material to proscribed uses
- Requirement to establish SSAC
- Report annually imports and exports of nuclear material

Model Protocol Additional
to the Agreement(s) between State(s) and
the International Atomic Energy Agency
for the Application of Safeguards
INFCIRC/540 (Corr.)



... to strengthen the **effectiveness** and improve the **efficiency** of the safeguards system as a contribution to global nuclear non-proliferation objectives ...

Complementary Access: Where and Why

- Any place on a site *Art. 5.a.(i)*
- Other places where nm declared to be *Art. 5.a.(ii)*

Decommissioned facilities/LOFs
Art.5.a.(iii)

- Other locations declared by State (R&D, functionally related) *Art. 5.b.*
- Other locations for ES *Art. 5.c.*

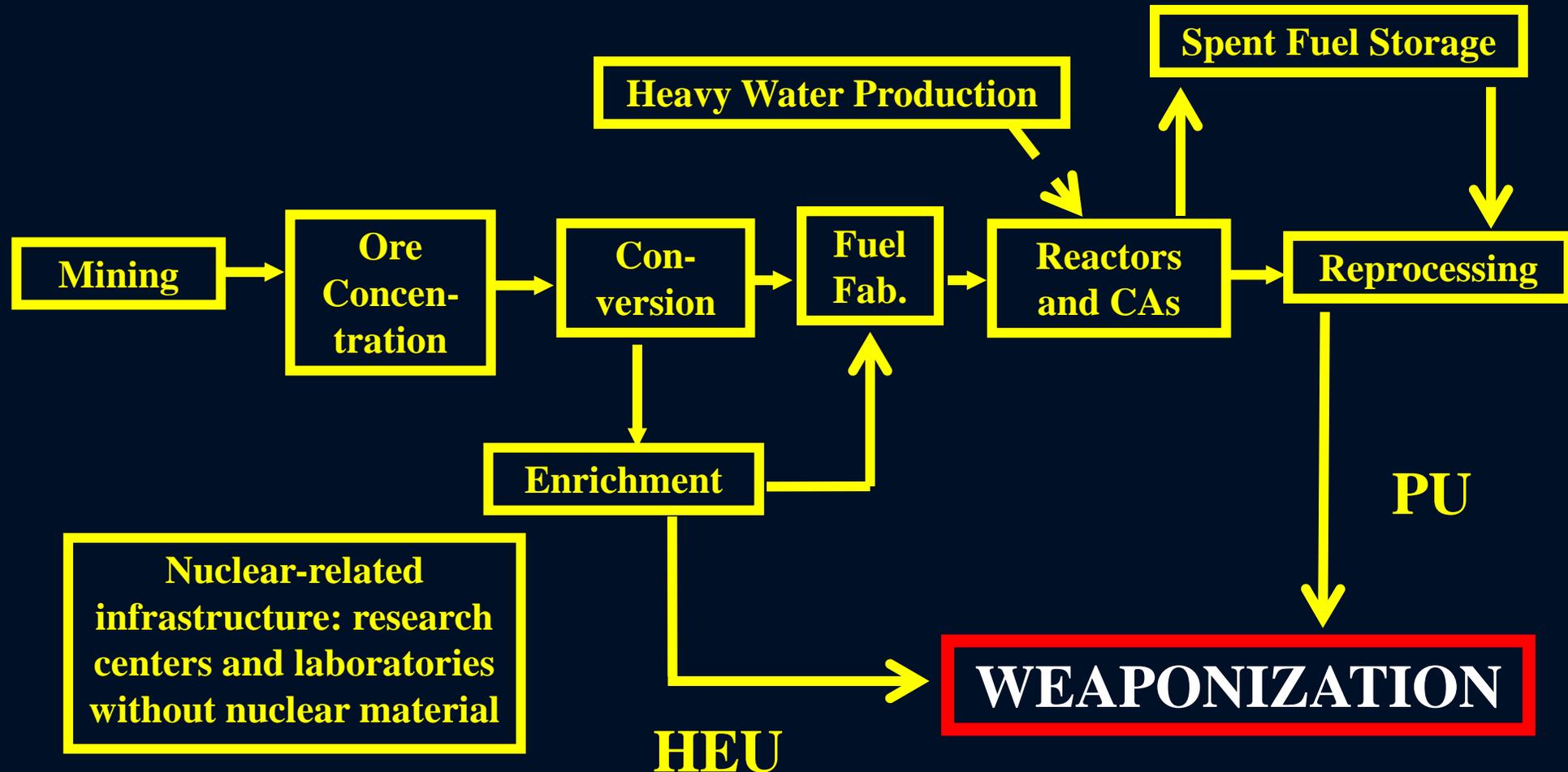
To assure the absence of undeclared nuclear material and activities**
(Art. 4.a.(i))

To confirm decommissioned status
(Art. 4.a.(iii))

To resolve questions or inconsistencies
(Art. 4.a.(ii))

** includes resolution of questions and inconsistencies

Safeguards Coverage: CSAs with APs





CTBTO



The Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans nuclear explosions by everyone, everywhere: on the Earth's surface, in the atmosphere, underwater and underground .

- **183** countries have signed the Treaty, of which **164** have also ratified it (as of September 2015), including three of the nuclear weapon States: France, the Russian Federation and the United Kingdom. But 44 specific nuclear technology holder countries must sign and ratify before the CTBT can enter into force. Of these, eight are still missing: China, Egypt, India, Iran, Israel, North Korea, Pakistan and the USA. India, North Korea and Pakistan have yet to sign the CTBT.
- the Organization is called the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). It was founded in 1996, has over 260 staff from over 70 countries, and is based in Vienna.
- The International Monitoring System (IMS) will, when complete, consist of 337 facilities worldwide to monitor the planet for signs of nuclear explosions (seismic, hydroacoustic, infrasound and radionuclide). Over 85 percent of the facilities are already up and running.

Global Initiative to Combat Nuclear Terrorism (GICNT)



- Voluntary partnership working to strengthen global capacity to prevent, detect and respond to nuclear terrorism
- 85 States and 4 official observers are part of the GICNT
- IAEA is an observer to the GICNT
- Conducted >35 multilateral activities to strengthen the plans, policies, procedures and interoperability of partner nations
- Implementation and Assessment Group (IAG) coordinates all GICNT activities
 - Nuclear Forensics Working Group
 - Detection Working Group
 - Response and Mitigation Working Group

UN SC Resolution 1540 highlights



- **Unanimously adopted on 28 April 2004 under Chapter VII of the UN Charter**
- **Proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security**
- **Obligations upon all States ; modalities of implementation are decided by each State (principle of national sovereignty)**
- **Measures aimed at combating the involvement of non-States actors into proliferation activities and at enforcing domestic controls over weapons of mass destruction related materials**

Resolution UNSC1540 and IAEA activities

- [Security Council] *Recognizing* that most States have taken... effective measures to account for, secure and physically protect sensitive materials, such as those required by the Convention on the Physical Protection of Nuclear Materials and those recommended by the IAEA Code of Conduct on the Safety and Security of Radioactive Sources; **(Preamble)**

- [Security Council] *Decides also* that all States ...shall:
 - (a) Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage or transport;
 - (b) Develop and maintain appropriate effective physical protection measures;
 - (c) Develop and maintain appropriate effective border controls and law enforcement efforts to detect, deter, prevent and combat, including through international cooperation when necessary, the illicit trafficking and brokering in such items in accordance with their national legal authorities and legislation and consistent with international law; **(OP 3)**

- [Security Council] *Calls upon* all States:
 - (c) To renew and fulfil their commitment to multilateral cooperation, in particular within the framework of the International Atomic Energy Agency...; **(OP 8)**



*Thank you for your attention!
Questions?*