



**IAEA**

International Atomic Energy Agency

# NUCLEAR SECURITY

**IAEA:** working to build  
a **global response** to a **global threat**



## THE WORLD TODAY

The threat of nuclear terrorism is real. Individuals and groups could acquire and use nuclear or other radioactive material with malicious intent. States have national responsibilities to combat this global threat by securing vulnerable materials, combating illicit trafficking and preventing malicious acts.

## IN A NUTSHELL

Nuclear security is the means and ways of preventing, detecting, and responding to theft, sabotage and unauthorized access to or illegal transfer of nuclear material and other radioactive substances, as well as their associated facilities.

## WHAT ARE POSSIBLE SCENARIOS?

The IAEA assists States to prevent illegal access to plutonium or high-enriched uranium for use in any type of explosive device. Risks addressed by States are:

- *Theft of nuclear materials, including those used in nuclear weapons*

As well as

- *Theft of other radioactive materials*
- *Sabotage against nuclear materials and facilities*

The IAEA is working to protect people, property and the environment against malicious use of nuclear or other radioactive material.





The **IAEA helps** to ensure that measures are taken to control and protect nuclear and radioactive materials from falling into the wrong hands.



## THE IAEA'S ROLE

The IAEA delivers training, technical assistance, and equipment to States, and provides international guidance on improving nuclear security.

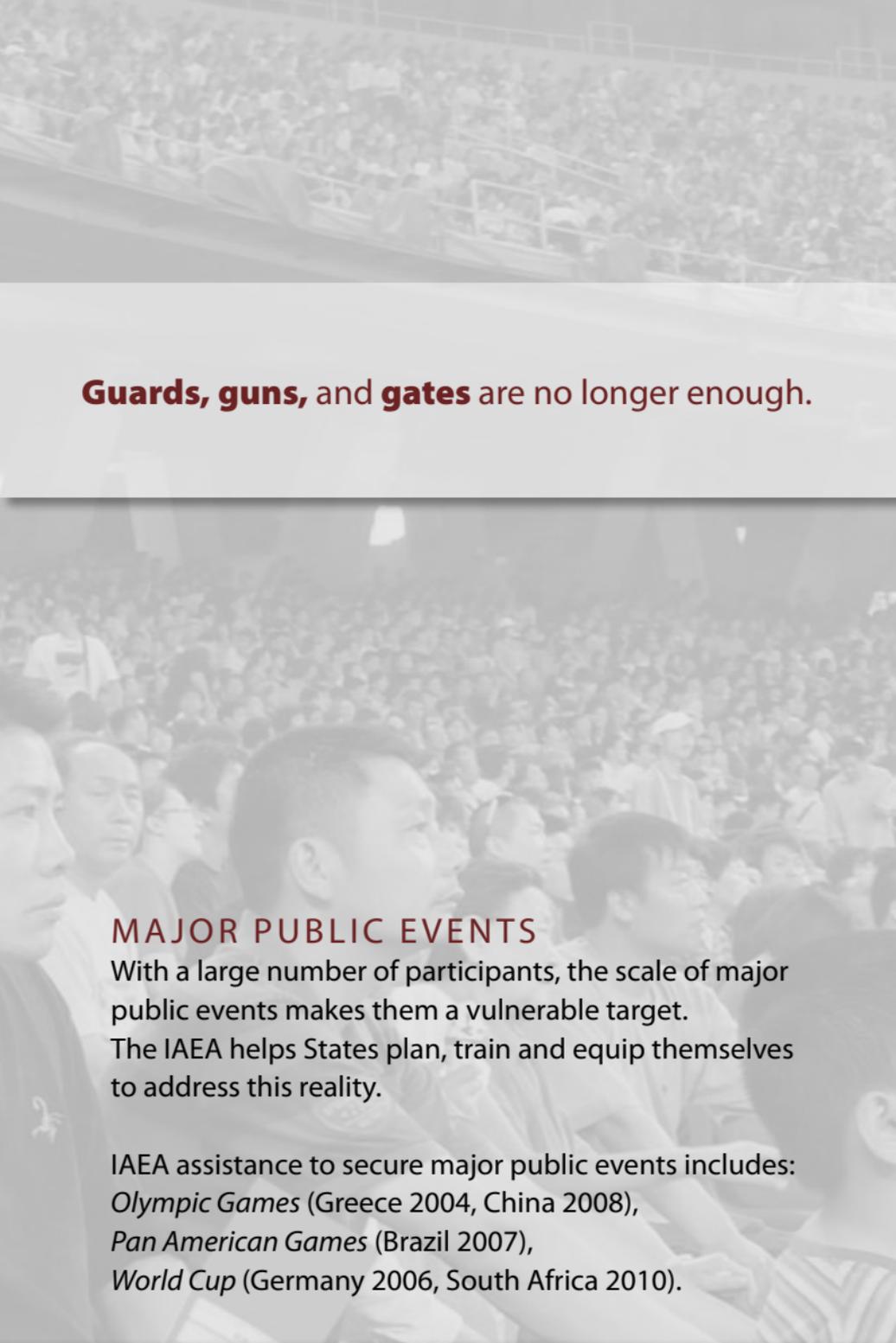
Prevention is the first line of defence. It includes upgrading the protection of nuclear facilities, storage and transport. If such protection fails, States need a robust second line of defence. They must be able to detect any illicit activities and to respond to any event. This includes effective border control with user friendly equipment at border crossings, training customs officials and efficient cooperation between law enforcement officials.

If there is a nuclear related emergency, States must be prepared and equipped to respond to any scenario. The IAEA's Incident and Emergency Centre (IEC) is on call to help. It coordinates round-the-clock specialized support and provides assistance to States in the case of an emergency, including from nuclear security incidents.

IAEA nuclear security activities include:

- *Risk reduction (such as repatriating research reactor fuel and strengthening border monitoring)*
- *International legal instruments and supporting their implementation*
- *Internationally accepted guidance and benchmarks for nuclear security*
- *Information exchange*
- *Human Resource Development programmes*
- *Research and development*





**Guards, guns, and gates** are no longer enough.

## MAJOR PUBLIC EVENTS

With a large number of participants, the scale of major public events makes them a vulnerable target.

The IAEA helps States plan, train and equip themselves to address this reality.

IAEA assistance to secure major public events includes:

*Olympic Games* (Greece 2004, China 2008),

*Pan American Games* (Brazil 2007),

*World Cup* (Germany 2006, South Africa 2010).





## MONITORING ILLICIT NUCLEAR TRAFFICKING

The IAEA tracks nuclear or other radioactive material outside of proper protection and control. A network of 110 States voluntarily contributes information to the Illicit Trafficking Database (ITDB). Information is also gathered from open-source reports. The IAEA then identifies general patterns in trafficking and assists States in minimizing the risk.





## **IAEA** Assistance to Reduce the Risk of Nuclear Terrorism includes:

- *Accountability and control of nuclear and radioactive sources*
- *Facility and transportation security upgrades*
- *International legal instruments support*
- *Nuclear security needs assessment, analysis and coordination*



## PARTNERS ON NUCLEAR SECURITY

- UN Security Council Resolution 1540 Committee
- UN Counter Terrorism Implementation Task Force
- United Nation's Office on Drugs and Crime (UNODC)
- International Civil Aviation Organization
- International Crime Police Organization (Interpol)
- International Maritime Organization (IMO)
- Sub-Committee of Experts on the Transport of Dangerous Goods
- United Nations Interregional Crime and Justice Research Institute (UNICRI)
- Universal Postal Union
- World Customs Organization (WCO)
- Organization for Security and Cooperation in Europe (OSCE)
- Europol
- G8 Global Partnership
- Global Initiative to Combat Nuclear Terrorism
- Global Threat Reduction Initiative
- The World Institute for Nuclear Security (WINS)



# Nuclear Security Culture

**IAEA** international guidance on nuclear security covers issues like security culture, design basis threat methodology, and nuclear forensics methodology.

## Publications:

- *Nuclear Security Fundamentals (objectives, concepts, principles)*
- *Recommendations (best practices that should be adopted by States)*
- *Implementing Guides (further elaboration of recommendations)*
- *Technical Advice (Reference Manuals Training Guides, Service Guides)*



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Nuclear security evaluation missions and technical visits are important tools in helping States assess their nuclear security needs and devising plans of action.

**International Nuclear Security Advisory Services**

help identify a State's broad nuclear security requirements and the measures needed to meet them.

**International Physical Protection Advisory Services**

serve as the Agency's chief tool for evaluating existing physical protection arrangements in States.

**SSAC Advisory Services**

provide States with recommendations and suggestions for improving their systems for accountancy and control (SSACs) of nuclear material.

**International Teams of Experts**

are a primary mechanism in assisting States to implement international legal instruments relevant to enhancing protection against nuclear terrorism.

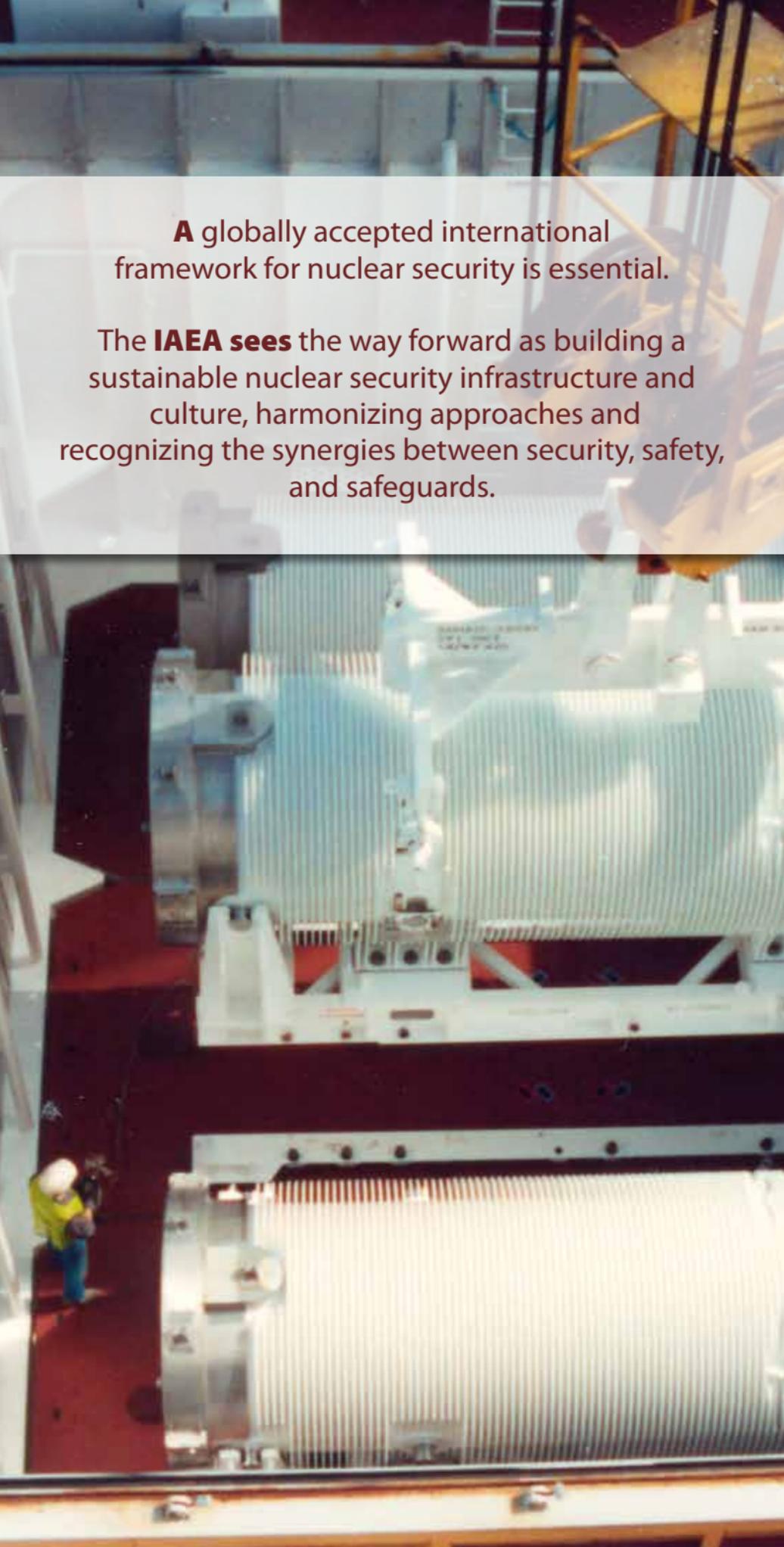
**Integrated Regulatory Review Service**

helps States to improve the effectiveness of national regulatory bodies and implement national safety legislation and regulations.

**Integrated Nuclear Security Support Plan**

delivers a holistic approach to nuclear security capacity-building.





**A** globally accepted international framework for nuclear security is essential.

The **IAEA sees** the way forward as building a sustainable nuclear security infrastructure and culture, harmonizing approaches and recognizing the synergies between security, safety, and safeguards.

## Programme In Numbers (2002–2009)

*Funding received:* US \$116 million

*Training provided:*

400 workshops and courses to over 9000 individuals from 120 States

*Field visits conducted:* 200+ to more than 350 sites

*ITDB cases confirmed:* 1383

*Research reactor fuel repatriated:* 1040 kg

*Radioactive material secured:*

4700+ sources in more than 35 States

*Radioactive sources repatriated:* 170+ to supplier States

*Physical protection upgrades conducted:*

100+ sites in 30 States

*Detection equipment provided:*

3000+ instruments to 55 States

IAEA Office of Nuclear Security  
Vienna International Centre  
PO Box 100, 1400 Vienna, Austria  
E-Mail: [info@iaea.org](mailto:info@iaea.org)

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