

Sri Lanka's Multi-Agency Approach to the Secure Transport of Radioactive Materials: Lessons for Emerging Nuclear Infrastructures.

Background

The secure transport of radioactive materials is a global security priority due to risks of theft, sabotage, and potential misuse in terrorism. Sri Lanka, a strategic hub in the Indian Ocean with a growing radiological industry, has developed a localized, risk-informed transport security framework. This approach integrates international best practices with domestic capabilities, offering practical insights for countries with emerging nuclear infrastructures.

Methods

Sri Lanka's security framework evolved from decades of institutional development, beginning with IAEA membership in 1957, the establishment of the Atomic Energy Authority (1969), and the enactment of the Atomic Energy Act No. 40 of 2014, which created the Sri Lanka Atomic Energy Regulatory Council (SLAERC). Recognizing the need for sovereign capacity, a Radiological Security Incident Response Team (RSIRT) was established within the Special Task Force (STF) of the Sri Lanka Police in 2011, supported by training from the U.S. Global Threat Reduction Initiative (GTRI).

A multi-agency approach was institutionalized, involving SLAERC (regulation), STF (escort and tactical response), State Intelligence Services (threat assessment), Customs and Ports (border control), and the National Disaster Management Centre (emergency preparedness). Mission-specific security plans incorporate risk assessments, specialized transport vehicles, armed convoys, drone surveillance, redundant communications, and pre-established safe houses.

Results

Sri Lanka's framework demonstrates effective integration of safety and security. Measures such as tamper-evident packaging, joint training, and shared communication protocols balance regulatory transparency with operational secrecy. Regular scenario-based drills simulate adversary tactics including ambushes, diversions, and drone surveillance, ensuring system resilience.

Key outcomes include:

- Establishment of sovereign capability for radiological transport security.
- Significant cost savings compared to outsourced international services.
- Enhanced inter-agency coordination and intelligence sharing.
- Increased national resilience against insider and external threats.
- Contribution to global non-proliferation by ensuring lifecycle protection of high-activity sources.

Conclusion

Sri Lanka's multi-layered, risk-informed approach provides a scalable model for countries with developing nuclear infrastructures. By combining localized innovation, inter-agency collaboration, and international support, the framework strengthens both national security and global non-proliferation efforts. Lessons from Sri Lanka's experience can inform other middle-income nations seeking to build sustainable, cost-effective, and internationally aligned transport security systems for radioactive materials.

strong text

Country or International Organization

Instructions

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