

Strengthening Capacity to ensure the safe and secure Transport of Radioactive sources: Lessons for Ethiopia and African Region

Synopses

In order to ensure the safe and secure transportation of radioactive sources, especially in newcomer nuclear states where their usage is rapidly expanding, it is crucial for every state to take full responsibility. Developing sustainable capacity at both national and regional levels is essential to address transportation risks such as unauthorized access, theft, sabotage, and delays that could compromise safety and security. This study focuses on a capacity-building approach towards enhancing transport security, which incorporates regulatory enhancements, training for operators and first responders, inter-agency communication, and regional collaboration mechanisms.

Ethiopia imports and utilizes a variety of radioactive materials for medical, industrial, and agricultural purposes. Mapping the transit routes revealed gaps in escort services, limitations in GPS tracking, and a lack of awareness among customs officials. These gaps emphasized the necessity for capacity building as a fundamental aspect of sustainable security.

The Method and Model discussed here comprised four key elements and it was recommended by author for Ethiopia and other developing countries:

1. Training and Awareness Programs- Mass training on radiation safety, security protocols, and emergency response for transport operators, regulators, and customs personnel have resulted in an increase in approved operator.
2. Simulation Exercises- Multi-agency drills enhanced communication protocols and decreased emergency response times.
3. Institutional and Regulatory Enhancement-Developing standard operating procedures reduced transport clearance delays while risk-informed route planning enhanced predictability.
4. Regional Collaboration- Ethiopia engaged in discussions with neighboring countries and participated in African Regional Cooperative Agreement (AFRA) activities, laying the groundwork for a regional transport security training center.

These paper underscore the importance of viewing capacity development as an ongoing and sustainable process that must be ingrained within institutional frameworks. Furthermore, this approach aligns with global standards such as the IAEA SSR-6 and Nuclear Security Series No. 9, which emphasize compliance at both international and national levels.

The study concludes with three major recommendations:

1. Institutionalize National Programs by integrating transport security components into the regular training curriculum for customs, law enforcement, and healthcare personnel.
2. Establish Regional Training Centers to facilitate cost-effective and standardized training within the African Union and AFRA frameworks.
3. Address Emerging Threats like cybersecurity in transport security training programs to account for the growing reliance on computerized monitoring systems.

This research indicates that the method discussed here can serve as a model for Ethiopia and African nations. By prioritizing human capital, enhancing institutional readiness, and fostering regional cooperation, achieving secure transport is feasible even in resource-constrained environments.

Country or International Organization

Instructions

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Track Classification: Track 1 Legislative and Regulatory Framework for Safe and Secure Transport