INTER-AGENCY COLLABORATION IN COMBATING ILLICIT TRAFFICKING OF RADIOACTIVE MATERIALS IN KENYA

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Abstract

An effective nuclear security infrastructure in a country requires an appropriate integration and coordination of responsibilities among the government agencies. In Kenya, the Radiation Protection Board is the national competent authority on matters of radiation safety, security of radioactive and nuclear materials, control of consumer products contaminated with radioactivity, and other related matters. To effectively carry out these mandate, the Board set up the department of Nuclear Security and Coordination Centre (NSCC). The centre coordinates activities of other agencies to ensure effective surveillance to combat illicit trafficking of radioactive and nuclear materials in the country and through the border posts. Kenya is strategically located to serve some land locked countries within the East and Central African region. These countries import radioactive sources some of which pass through the Kenyan territory destined for use in industrial and other facilities. This has led to a challenge in tracking the movement of radioactive materials from their points of entry to the end users in other countries. However, through the coordination of agencies, coupled with a robust legislative and regulatory framework, some of the previously identified challenges have been addressed. The paper gives an overview on how these government agencies coordinate in ensuring that illicit trafficking of radioactive and nuclear materials is eliminated in the country. Some of the challenges identified were highlighted and possible solutions recommended.

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1. INTRODUCTION

Nuclear security focuses on the prevention of, detection of and response to criminal or intentional unauthorized acts involving or directed at nuclear materials, other radioactive materials, associated facilities or activities. Consequently, as described in (1) a comprehensive approach to nuclear security by states should deal with the related issues in a holistic manner, that include: Adoption of all relevant international legal instruments; development of a nuclear security infrastructure, including a legal, regulatory and institutional framework and a national nuclear security strategy; and the implementation of nuclear security measures for nuclear material and facilities. Furthermore, to effectively implement the necessary nuclear security systems and measures, an appropriate nuclear security regime in a country should provide an appropriate interaction and coordination of responsibilities of all relevant state agencies.

The nuclear security detection architecture should integrate the nuclear security systems and measures needed to implement a national strategy for the detection of nuclear and other radioactive material out of regulatory control. The systems and measures should be implemented within a concept of operations and be supported by communications, law enforcement, intelligence agencies, and systems of regulatory compliance as well as human resources (e.g. enforcement officials, experts, local and national response teams, other authorities) to ensure their effectiveness (1).

In its report published in (2) the IAEA reported that more than 70 states have collected and shared information on trafficking incidents and other unauthorized movements of radioactive sources and other

radioactive material. The ITDB includes confirmed incidents involving radioactive material other than nuclear material. In most of these cases, the radioactive material was in the form of sealed radioactive sources, but some incidents with unsealed radioactive samples or radioactively-contaminated materials such as contaminated scrap metal also have been reported to the database and are included in the statistics. It is worth noting that the great majority of detected trafficking incidents appear to involve opportunists or unsophisticated criminals, motivated by the hope of profit.

Nevertheless, it is apparent that an important fraction of cases involved persons who expected to find buyers interested in the radioactive contents of stolen sources and their ability to cause or threaten harm. Customs officials, border guards, and police forces have detected numerous attempts to smuggle and illegally sell stolen sources.

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Nuclear security concerns in Kenya include theft and trafficking of radiological and nuclear materials, and there have been cases of prosecution proceedings and conviction in our Courts of Law. In addition, the presence of active terrorist groups on the territory of Kenya coupled with the existence of borders difficult to monitor make the threat of trafficking of nuclear and radiological material a realistic and recurring one.

2. NUCLEAR REGULATORY FRAMEWORK IN KENYA

The Radiation Protection Board (Board) is a statutory body and a national function established by the Radiation Protection Act (Act) – Cap 243 of the Laws of Kenya – as a Semi-Autonomous Government Agency under the Ministry of Health. The Act makes provision for the control of activities involving ionizing radiation and provides for the protection of workers who are occupationally exposed to radiation to the patients, members of the public, the environment and future generations from the hazards associated with the use of radiation and for connected purposes (3).

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The Board is mandated to carry out regulatory activities related to; radiation safety, nuclear security & nuclear safeguards, radiation protection, radioactive waste management and monitoring for radio-contamination (consumer products and the environment). As a result of Nuclear Security Challenges (including nuclear terrorism), the Radiation Protection Act was recognized as a security related act and was therefore amended by the Security Laws (Amendment) Act of 2014 to incorporate other law enforcement agencies in the Board membership. These include the National Intelligence Service, Kenya Defense Forces, Directorate of Criminal Investigation, and Kenya Revenue Authority.

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3. NUCLEAR SECURITY COORDINATION CENTRE (NSCC)

In Kenya the Radiation Protection Board is the competent authority tasked with ensuring radiation safety, security of radioactive and nuclear materials, safety of radioactive waste and other related matters. Through the office of Nuclear Security Coordination Centre (NSCC), the Board coordinates other government agencies involved in security matters like ensuring effective surveillance to combat illicit trafficking across the border ports and within the country.

The NSCC, formerly known as Nuclear Security Support Center, has been in operation since the year 2012. The Center has managed to bring together key stakeholders from different discipline in several occasions, to deliberate inter alia on nuclear security matters, in an effort of ensuring Kenya attains a sustainable nuclear security regime.

A six (6) member Technical Working Committee (TWC) was also formed to deliberate on many emerging issues of nuclear security following the rising global security threats.

The nominated TWC were representative from: the National Disaster Operation Center; National Intelligence Service; Kenya Airports Authority; National Environmental Management Authority; chairman for RWM&NS and the NSCC.

3.1. Roles and responsibilities of NSCC

The Center is responsible for developing realistic and workable Action Plans based on monitoring, evaluation and data analysis. This requires coordination among key stakeholders in order to identify needs, gaps, patterns, and

3.1.1. Identification, coordination and strengthening of National Radiological/Nuclear threat and risk mitigation capacities, and post accident recovery strategies;

Threats and risks associated with exposure or contamination from nuclear or other radioactive materials are of great concern. This is due to harmful effects that may adversely affect humans and the environment. These risks may be as a result of natural, accidental or intentional occurrences. Being aware that security threats are on the rise globally, NSCC has embarked on capacity building to strengthen national strategy to prevent, prepare, respond and recover from nuclear/radiological events.

3.1.2. Maintain inventories for Radiological and Nuclear resources

The NSCC plays a leading role in identifying and prioritizing gaps and needs in relation to RN resources. Nuclear security inventories such as equipment, technology, and experts, need to be maintained and regularly updated. This assists in recognizing existing capabilities, information sharing amongst stakeholders and thereby finding counter measures. This improves inter-agency cooperation as well as helps in optimizing the use of existing resources while avoiding duplication of efforts

3.1.3. Search and secure orphan Radiological and Nuclear sources in the country

Radioactive sources out of regulatory control pose dangers to life and environment and therefore needs to be searched and put under secure control. These may be as a result of naturally occurring, disposed, or lost sources. The Center in liaison with the department of Radioactive Waste Management & Nuclear Security, and development partners safely secure such sources.

3.1.4. Facilitate Nuclear Forensic Services

Kenya currently does not offer nuclear forensic services. Nuclear Forensic involves a combination of traditional forensic, which already exists in the country, and incorporates core capabilities, which are more specific to nuclear/radiological incidents.

3.1.5. Perform needs assessment in nuclear security;

Determining existing national capabilities in nuclear security is greatly essential. The NSCC plays an important role in leading and coordinating the need assessment in the country, thereby identifying and collects information on areas for potential improvement. The Center needs to employ a practical methodology that national authorities may use to locate their own gaps and needs for preventing and minimizing RN threats and risks. Involving development partners in identified areas would be a potential point to consider.

3.1.6. Liaison with development partners such as IAEA, US-NRC, US-DoE, EU-CBRN, among others and drawing up MoUs where applicable

Kenya has been working together with local and international development partners in an effort to building a legal and regulatory framework, prevent, detect, respond and sustain nuclear security. This has been in the form of expert assistance, training, donations among many others. The NSCC is the right entity in liaising with the development partners in regards to many nuclear security initiatives that exist. Some of these initiatives include; NSSC, MEST, INSSP, INSServ, IPPAS, CBRN, GTRI, INSEP, IRRS, ISS, ITDB, NSGC, INES, RBPU, EXBS, STC, MPI, IAEA-TCP, NS related Agreements, among others. Practically in many occasions, development partners have to enter into a memorandum of understanding (MoU) with the Kenyan government. Such MoU exists with IAEA, US-DoE, EU-CBRN among others.

3.1.7. Development and operationalization of an Integrated Nuclear Security Support Plan (INSSP) for Kenya with the IAEA;

Kenya has developed the INSSP, where specific functions, activities and roles have been assigned to relevant key nuclear security stakeholders. This was as a result of an IAEA-INSSP mission that took place in Nairobi on 8th to 10th October 2013 in collaboration stakeholders. The NSCC is recognized as the relevant body to implement the plan. It ensures that all involved agencies and stakeholders understand their specific roles and tasks within the plan.

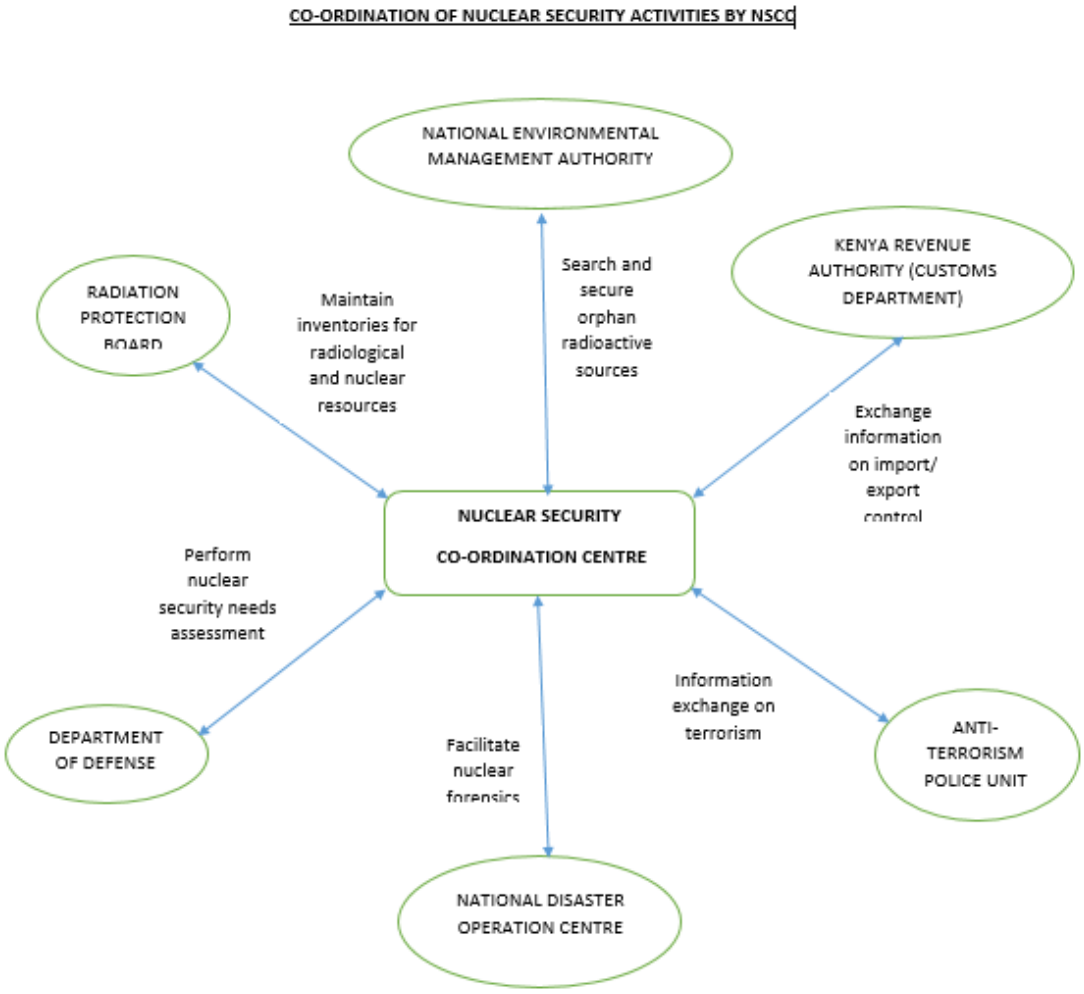

Figure 1 Coordiantion of Nuclear Security Activities by NSCC

3.2. Nuclear Security activities implemented by the NSCC

The following are some of the initiatives that have been initiated by the Board through the office of NSCC to enhance the national nuclear security regime in Kenya: (4)

3.2.1 Risk Mitigation in Chemical Biological Radiological And Nuclear Explosives (CBRNE)

(a) CBRNE Commodity Identification Training

Since 2012, the Board has partnered with the U.S. Customs and Border Protection and US Department of Energy (DoE) to support law enforcement and security officials in awareness and recognition of commonly available commodities that can be readily used to make improvised weapons to attack innocent civilian populations. To this end Chemical Biological Radiological and Nuclear explosives (CBRN) Commodity Identification Training (CIT) and Weapons of Mass Destruction (WMD) CIT courses have been conducted for law enforcement and customs officials. Six hundred (600) law enforcement and 300 customs officials from Kenya, Uganda, Tanzania, Burundi and Ethiopia have been trained on CBRNe CIT and WMD CIT.

(b) **CBRN Centre of Excellence for Eastern & Central Africa**

The Chemical, Biological, Radiological and Nuclear (CBRN) Center of Excellence (CoE) is an initiative of the EU and is jointly implemented by the United Nations Interregional Crime and Justice, European Union Joint Research Center, and host governments. The aim of the programme is to create regional initiatives dedicated to improving national policies and international cooperation in the area of CBRN risk mitigation. The aims and objectives of the initiative is to ensure a world free of threats and risks emanating from CBRN materials, devices, and associated facilities through regional CBRN CoEs by promoting requisite policies and developing necessary technical capabilities in participating states/regions.

(c) Nuclear Security at Inland Container Depot Nairobi

Radiation Portal Monitors have been installed at ICDN to screen imports and exports for nuclear and radioactive materials. These devices can detect various types of radiation emanating from nuclear devices, dirty bombs, special nuclear materials, natural sources, and isotopes commonly used in medicine and industry.

(d) Nuclear Security at JKIA

The Board is partnering with Kenya Airports Authority (KAA) and other security agencies to strengthen detection, interdiction and deterrence of nuclear and other radioactive materials at our international airports. Five (5) Radioactive Isotope Identification Devices (RIID) and two hundred and five (205) Personal Radiation Detectors (PRDs) are in use in both Mombasa and Nairobi. The board provides 24/7 technical reach-back capacity.

(e) Control of Nuclear and other Radioactive Materials

Radioactive materials are classified as United Nations Category VII of dangerous goods. Handling of dangerous goods requires specialized expertise and radiation detection equipment as well as response capabilities. In view of this the Board issues import/export licenses for radioactive and nuclear materials and does offer verification capacity at the major ports of entry/exit in real time.

(f) MoU between Kenya Civil Aviation Authority and the Board

The Board has a working MoU with KCAA to ensure that transportation and handling of radioactive material, in the aviation industry, is undertaken in a structured manner and in accordance with all national and international safety and security requirements.

4. CONCLUSION

In conclusion, the different initiatives have greatly contributed to ensure detection and interdiction of nuclear and other radioactive materials at Kenyan points of entry/exit. However, coordination and inadequate legal framework have been identified as major challenges.

In addressing these challenges, the Nuclear Regulatory Bill 2018 was presented and approved by Cabinet and now it is in the National Assembly undergoing the promulgation process.

The import of the Bill is to transform the Radiation Protection Board to a comprehensive regulatory body to regulate issues of radiation safety, nuclear security and safeguards.

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