## RADIOACTIVE WASTE MANAGEMENT A KENYAN PERSPECTIVE

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## MAIN SOURCES OF RADIOACTIVE WASTE

Disused sealed radioactive sources and Norm

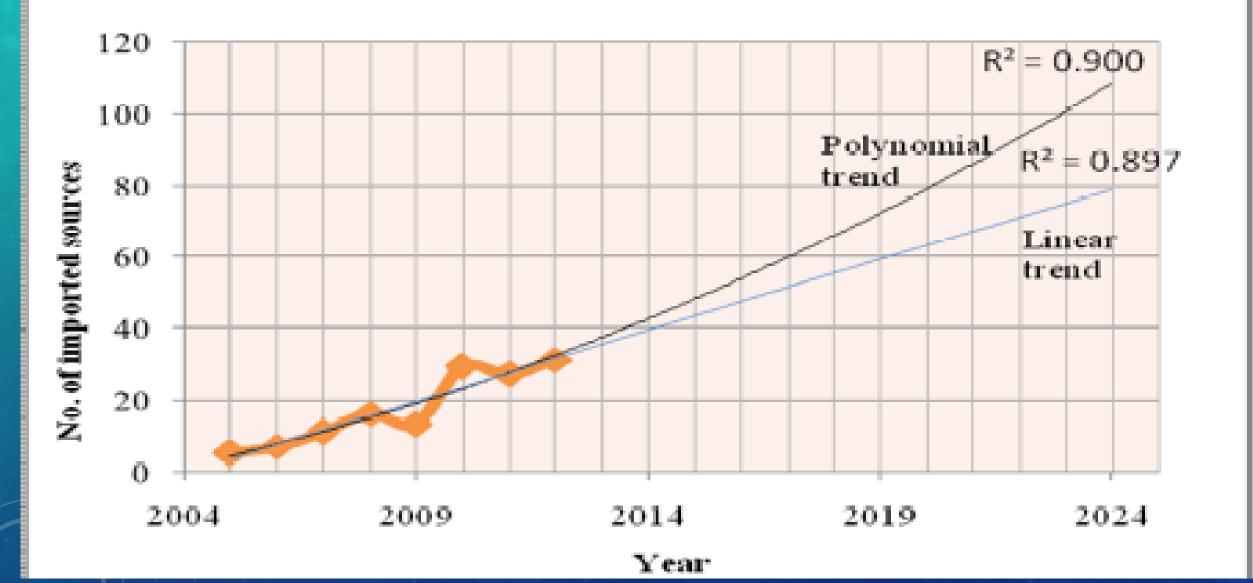
- Hospitals
- Industry
- Research

No research reactors or spent fuel

## NATIONAL WASTE INVENTORY

SOURCE (No.)		SOURCE (No.)		SOURCE (No.)	
Cs 137 (56)		Ra 226 (120)		125 (15)	
Mo 99 (4)		Ni 63 (5)		Fe 59(1)	
Am 241 (82)		Cf 252 (3)		Cr 50 (3)	
Co 60 (33)		DU 238 (5)		H 3 (3)	
Kr 85 (6)		Cd 109 (11)		S 35 (4)	
lr 192 (31)		Fe 55 (11)		C14 (114)	
Sr 90 (27)		Th 232 (4)		P32 (11)	
Th228 (6)		Ba 133 (22)		131 (11)	
Na 22 (8)	Mn 54(2)	Co 57 (12)	Sr 89 (2)	Tc 99 (12)	Y 90 (17)

### **INCREASE IN IMPORTATION OF SOURCES SINCE 2005**



NATIONAL POLICY / NATIONAL PLAN FOR MANAGING RW

The Radiation Protection Board (RPB)

Established by an act of parliament in 1984

- oversee matters of radiation safety,
- security of radioactive materials,
- control of contamination of food and environment
- Maintains a register of radiation facilities and workers, dealers in radioactive devices and materials

Presently there is no National Policy on management of radioactive waste

- Radioactive waste is conditioned and stored at a location operated by the Materials and Testing Research Laboratory (MTRD).
- DSRS are also stored by the Radiation protection board

#### INSTITUTIONAL FRAMEWORK FOR MANAGING RW (REGULATOR, OPERATOR, TSO)

Regulator-Radiation protection board ;

Provides guidelines, standards and regulations

Operator/Generator ;

Safety and security of generated radioactive waste
Technical support organizations

> Materials testing and research Laboratory (MTRD)

Kenya Nuclear Electricity Board (KNEB)

Institute of Nuclear Science and Technology (INST)

#### Resources (human and financial)

- > Trained human resource is available however the financial implications of sustaining them is limited.
- Limitations in equipment acquisition and training

#### MANAGEMENT OPTIONS CONSIDERED FOR DSRS, NORM, LLW,



#### Return to supplier

Near Surface repository And Disposal facilities

#### **Effluent Discharges**

REUSE

# Are there viable options for reuse of radioactive waste ?

## CONCERNS, PROBLEMS, CHALLENGES IN MANAGING RW

- Security
- Local TSOs
- Illegal trafficking of sources
- Lack of a National policy



