



TITLE OF PAPER:

Assessment of Radioactivity Levels of Foodstuffs Entering Mombasa Port, Kenya.

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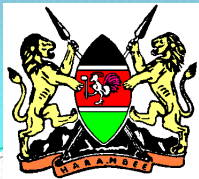
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RADIO ANALYSIS OF SAMPLES.



- ❖ Mombasa port- busiest port in Eastern Africa
- ❖ Radiation analysis of environment samples and food stuff is vital for protection of public health
- ❖ Requires rapid, reliable and practical techniques for analysis of various radionuclides
 - ❑ Measures taken by the Kenya Government after the Fukushima Daiichi Nuclear accident
 - a) Monitor Radiation exposures to the public and the general environment through various exposure pathways
 - b) Major exposure pathways that are of great concern include foodstuff: milk & milk products , grain & rice, meat, aquatic organisms & sea foods and vegetables



LAB EQUIP. USED FOR ANALYSIS



❖ Small radiochemical lab consisting of:

- Portable survey instruments for measuring incoming samples
- Alpha spectrometer system consisting of: Silicon surface barrier detection in a vacuum chamber, multi-channel analyzer, high speed printer
- Portable thin-window Geiger Muller beta-gamma survey instrument
- Liquid scintillation counter
- Fully integrated gamma spectrometry system for qualitative & quantitative determination of emitters
- System comprises of a germanium detector, shield, MCA, high speed printer and plotter



Other equip.

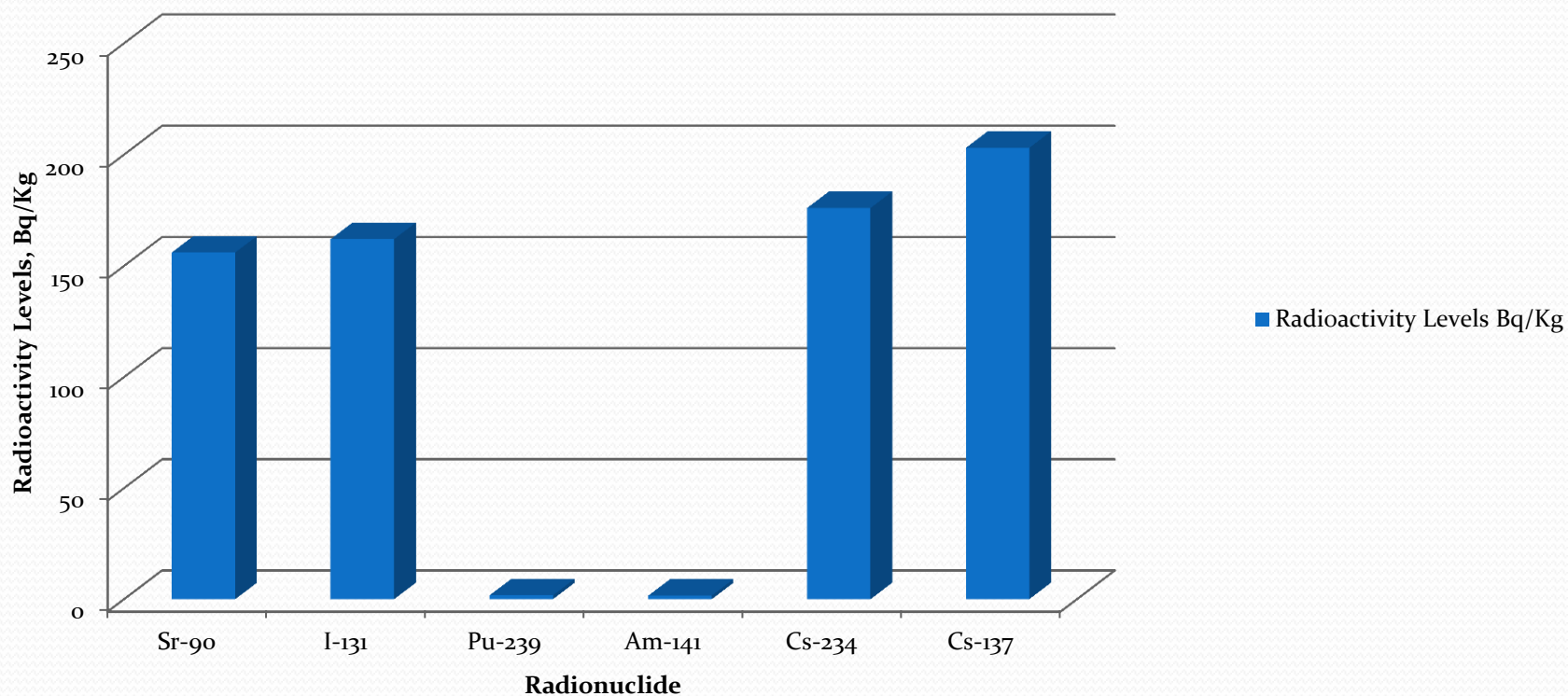
❖ Other special equipment for sample collection and preparation for lab. use include:

- a) Refrigerator for preserving samples
- b) Freezer for storing samples
- c) Evaporator
- d) Large drying oven



❖ Average Radioactivity Levels of Radionuclides in Analyzed Foodstuffs

Table 1.





PERSONNEL & LOCATION



□ Personnel

- a) 1 Lab manager
- b) 3 Chemists
- c) 1 Secretary
- d) 1 Field technician
- e) 1 Maintenance and service technician

□ Location

- a) Located within the Government chemist lab. That is routinely used for analyzing food, water and other environmental samples.
- b) The work of this Lab is mainly for screening purposes.
- c) Consists of two rooms with a floor space of 25 square meters.



THANK
YOU.