

1. Introduction

1.1. Background and Goal of the present work

A country may have sound and internationally harmonized legal and regulatory frameworks to ensure the security of radioactive sources. But, this by itself does not guarantee and enable us to conclude that the radioactive sources are secured. What matters is their effective and efficient implementation. This study explores the different types of radiation protection and security potential challenges in implementing the legal and regulatory frameworks effectively and efficiently that may arise at different times and analyses the solutions to these different radiation protection and security challenges

1.2. Significance of study

The use of radiation and nuclear technology in the world and in various countries must be done in a manner that is based on the safety of human beings and the environment. The use of Radiation Nuclear Technology is to ensure the safe and secure use of Radiation and Nuclear Technology by identifying human error and challenges during operation as well as errors in technological advancement and attack, as well as directing solutions to errors in various services.

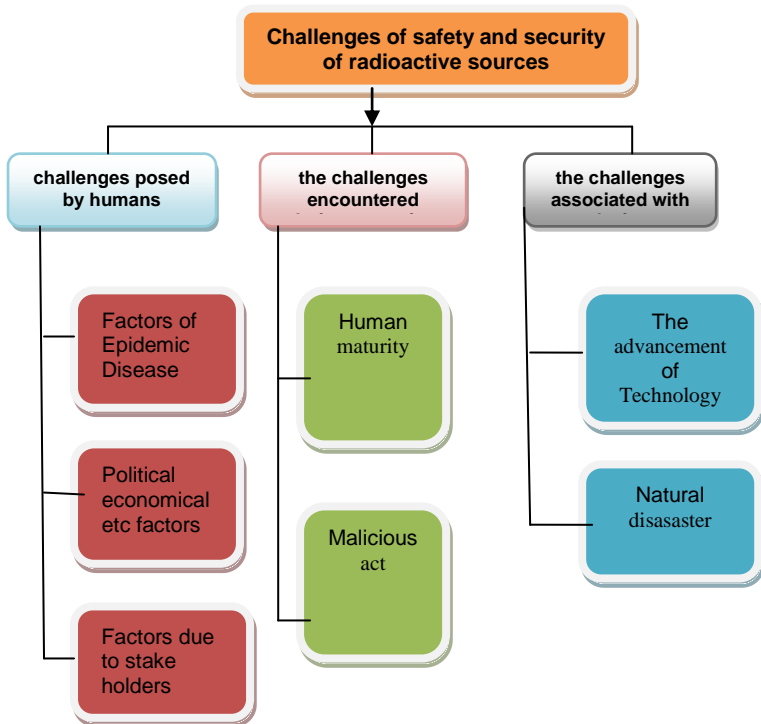
2. Method

Methodology for analysing used two approaches, the first one is questionnaires are only viable if they ask open-ended questions. Without numbers and scales, survey methods like written review are more difficult to evaluate. The second is and interview different personal both are perhaps the most popular method of safety and security culture assessment one major advantage is that these surveys represent an easy way to assess many people while allowing a quick turnaround of the data.

3. Result

3.1. Challenges of safety and security of Radioactive sources

Samples were collected from employees of the Ethiopian Radiation Protection Authority who were direct or in direct contact with the paper. Sixteen of the twenty samples produced completed the questionnaire and four did not complete the questionnaire. In summary, there are two possible ideas: One is to identify the challenges we face.



In general, the challenges listed below are political interference, lack of awareness and attention to licensors, weak enforcement actions, lack of commitment from stakeholders, lack of awareness of licensing radiation, and failure of customs and registrars to properly record their radioactive resources. Lack of commitment and oversight of regulatory bodies, lack of budget, lack of awareness of stakeholders, lack of accountability, lack of regulatory and regulatory compliance, lack of technology and infrastructure capacity, lack of security and protection culture. Awareness raising with community officials and policy makers and the difficulty in deciding on timely deployment of resources, inaccessibility of regulators, vulnerability to homeless radioactive materials, lack of commitment and efficient manpower and resources during storage and transportation.

6. Conclusions and Acknowledgements

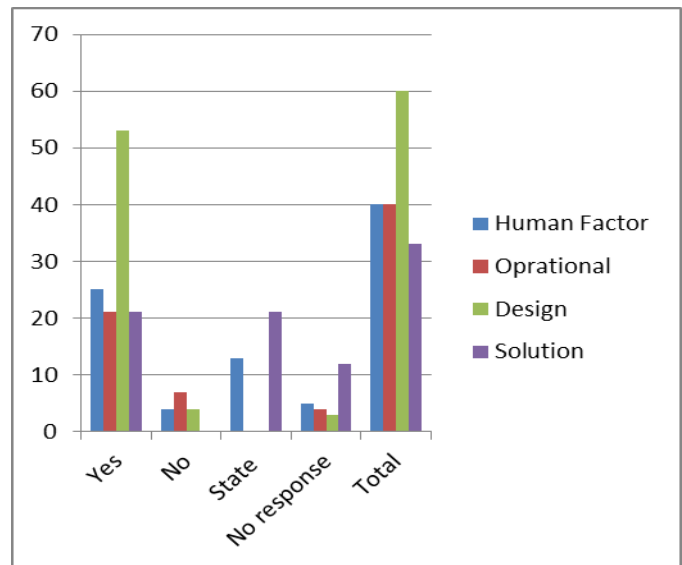
General In every movement, there is a need for assigning of determined leadership, competent and decisive leadership, intellectuals, patriots, and the right people. As a result, many activities provide accurate information on the safety and security of radioactive sources, the opportunity for attention, and the provision of appropriate information in the daily news. Finally I like to acknowledge to ERPA Managements and staff because they helped me from the beginning to the end and to IAEA willing to take the opportunity to participate in this meeting.

5. Discussion

When analysed, they are summed up in three concepts: the challenges posed by humans, the challenges encountered during operation, and the challenges associated with design. The basic idea is to suggest solutions to all the questions. A total of nine questionnaires were developed, three of which focused on the challenges faced by the people, two of which included errors during operation, and the last two focusing on technological design. The first question, however, invites individuals to analyse the challenges of radioactive Sources Safety and security. Ultimately, it forces everyone to discuss the possible solutions for yes or no answers.

challenges	Yes	No	State	No response	Total
Human Factor	25	4	13	5	40
Operational	21	7	0	4	40
Design	40	0	0	4	60
Solution	21	0	21	12	33

3.2. Fig 6.1 Analysis data from the sample



In every movement, there is a need for assigning of determined leadership, competent and decisive leadership, intellectuals, patriots, and the right people. As a result, many activities provide accurate information on the safety and security of radioactive sources, the opportunity for attention, and the provision of appropriate information in the daily news. Facilitate Opportunity for stakeholders involvement committed to the safety and security of the radioactive source, signing a strong memorandum of understanding with stakeholders and regulators.

5.1. Solution

Creating opportunities to provide appropriate training for the operators, strengthening the process, fulfilling the requirements and appreciate responsibilities, developing awareness, avoiding significant damage, and implementing operational requirements and obligations. The extent of the damage caused by radiation exposure depends on a number of factors. High risk of radiation exposure, creating a competent and trained operator, operators should ensure their psychological, mental and emotional well-being before surgery. Obviously simple and easy to understand because the instructions and procedures are always discussed around the table by the operator and the operator's mistake is intentionally or unintentionally following the correct procedure and protocol of the staff.

An accountability mechanism should be established among stakeholders beyond MOU. The cooperation among stakeholders is usually on voluntary basis which is not binding to discharge the tasks with ownership and accountability. The IAEA safety standards and Code of Conduct should be implemented by establishing appropriate Regulatory framework. Neighboring countries should install scanning machines and strengthen their boarders with trained security force. Moreover; they should cooperate with each other with MOU to enhance the safety and security of radioactive sources.