**TITLE: SUSTAINABILITY AND EFFECTIVENESS OF NATIONAL NUCLEAR REGIMES THROUGH PUBLIC AWARENESS ON SECURITY AND SAFETY OF RADIOACTIVE SOURCES.**

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**Introduction**

Uganda has a population of 46M people. Atomic Energy Council has 25 technical staff as a regulator. In terms of communication, the ratio is one regulator to 1.2Million members of the public. The 1.2 Million people are ignorant of nuclear energy applications/radioactive sources, their benefits and the associated dangers.

How do we convert the 46Million people into collaborators? A key concern for the future of mankind is public understanding of nuclear energy applications. Nuclear security regimes require states to protect people, property, society and the environment from the harmful consequences of nuclear security events.

**What is public awareness?** Public awareness is the public’s level of understanding about the importance and implications of a certain programme or an activity. It involves explaining issues and disseminating knowledge to people so that they can make their own decisions. Public awareness is important to increase enthusiasm and support, stimulate self-mobilization and action, and mobilize local knowledge and resources. Raising political awareness is important as policy makers and politicians are key actors in the policy process of adaptation.

**The Nuclear Industry**

It is important to note that, the nuclear industry is a broad and diverse sector that includes a wide variety of organisations that use radioactive materials for applications in medicine, research, education, agriculture, power generation, mining and industry.

**Who is responsible?**

Through public awareness the security of radioactive sources becomes a responsibility of every citizen. This requires stakeholders including the public to appreciate and be aware of the nuclear security threats around them. This is because a National Nuclear Security Regime comprises of the legal and regulatory framework, nuclear security systems and measures, and people and organisations. All this stakeholder share experiences and a threat can easily be handled. National commitment is essential to a strong nuclear security culture. Nuclear safety and security of radioactive materials is ultimately dependant on individuals, policy makers, regulators, employees and to some extent members of the public.

For the sustainability and effectiveness of national regimes, all key stakeholders need to report on their strategic objectives and reflect on how they impact on the public and environment with a clear oversight of nuclear safety and security performance. They also need to provide information to inform discussions on the wellbeing of their people, society and environment and lastly ensure effective internal communication with internal stakeholders to ensure that such personnel understand the organisations objectives, policies and procedures clearly. This degree of openness in communication influences the organisations security culture, develops the state’s reputation as a socially responsible actor and contributes to the sustainability of all nuclear enterprises through improved transparency but **while protecting** **the sensitive nuclear information like technical data, blue prints, designs and security procedures.**

**what is the role of public awareness on security and safety of radioactive sources?**

1. Awareness raising missions for key political leaders and decision makers in government is critical in supporting government policies, laws and improving budget allocations for regulatory bodies. In Uganda, our political leaders have gained enormous knowledge in this field through invitations to the IAEA. In turn government has supported our projects.
2. Public awareness is critical in supporting a strong Nuclear security regime. In safety, the humans are sensitized to understand the harmful effects of ionizing radiation while in security, awareness of internal employees enhances the protection of the material from malicious acts of individuals.
3. Through public awareness, the roles and responsibilities of each stakeholder are clearly identified. This enhances cooperation and coordination between stakeholders through stakeholder engagements hence improving nuclear safety and nuclear security of radiation sources at the national and regional level.
4. Public awareness defines regulatory functions of competent authorities with prudent management practices and enhanced measures.
5. Awareness supports staff of the regulatory body in the field of legislative drafting and nuclear law. Through internal and external relations, staff have a platform for discussion and exchange of information on plans, programs and technical solutions. It also fosters high level of security awareness with an appreciation of the threat and recognition of the need for nuclear security.
6. Through public awareness and stakeholder engagements, there is enhanced implementation of nuclear security systems and measures during major public events. An example in Uganda is the annual Martyrs day that gathers millions of people. Key security government organisations are trained by the regulator on equipment handling and other security areas.
7. Effective public awareness of citizens makes enforcement, regulation and conformity easier and cheaper. Effective, balanced public reporting and communication on key nuclear security information about the regulatory oversight creates resilient nuclear security culture and sustainable national nuclear regimes. It promotes awareness, safety of the people and the environment, enhances compliance and service delivery, promotes accountability and public acceptance.
8. Response to radiological emergencies; Continuous education is one of the major tools in raising public awareness. This later plays a big role in crisis communication during radiological emergencies. The public will be aware of the possible incidents associated with radioactive sources.
9. Public awareness promotes public acceptance, self-policing and clears misinformation in the public domain. self-policing encourages the public to look out for their own safety.
10. It also enhances good compliance from operators because of awareness to the public. The public will hold facilities accountable to wrong practices endangering lives.
11. Uganda possesses an interim radioactive sources store that became operational in 2019. The community first rejected it due to lack of enough public awareness and community involvement during the initial stages of the project. The approach used in communication was a top down approach which completely failed at that time. The regulatory body however improved on public awareness, changed the communications strategy and involved the key stakeholders in planning and there is definitely a positive change towards the regulator.

**Conclusion**

it’s very important to invest in public awareness. Continuous communication and public awareness in due course defines the fate of the nuclear sector both in the short term and certainly in the long term. sustainability and effectiveness of national nuclear regimes through public awareness on security and safety of radioactive sources is the way to go.

By law in Uganda, The Atomic Energy Act No 24 of 2008(AEA,2008) 9(n) authorises the regulator to establish appropriate mechanisms to inform the public about the regulatory processes and the radiation safety aspects of regulated practises. Atomic Energy Council Uganda carries out public awareness activities through; Publications on safety and security of radioactive sources, Stakeholder engagements and trainings, talk shows and Social media radiation safety campaigns. This has improved stakeholder communication, increased trust, credibility, reduced risk and led to improved transparency.