“Nuclear infrastructure development as a necessary pillar for projects sustainability”?

Presentation Made During the ATOMEXPO-2019

By

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Presentation Outline

- What are the Soft and Hard Infrastructure issues that are critical to the Nuclear Program Implementation?
- What Nuclear Infrastructure Assessment Results for Zambia?
- What has been our Approach to remedy the situation?
- What has been the key achievements of using this approach?

What are the soft and hard infrastructure issues related to implementation of Nuclear Program?

- ***Soft infrastructure issues*** relate to policies, regulatory framework, legislative framework, HRD and organizational arrangements (National Position, Nuclear Safety, Management, Funding and Financing, Safeguards, Radiation Protection, Nuclear Power Plant Utilization, Stakeholder involvement, Site Survey and Selection and Evaluation, Environmental Protection, Emergency Preparedness and Response, Nuclear Security, Nuclear Fuel Management, Radioactive waste, Industrial Involvement and Procurement)

- ***Hard infrastructure issues*** relate to physical elements related to the design, commissioning, operating and decommissioning of the Research Reactor and Nuclear Power Plant

What Nuclear Infrastructure Assessment Results?

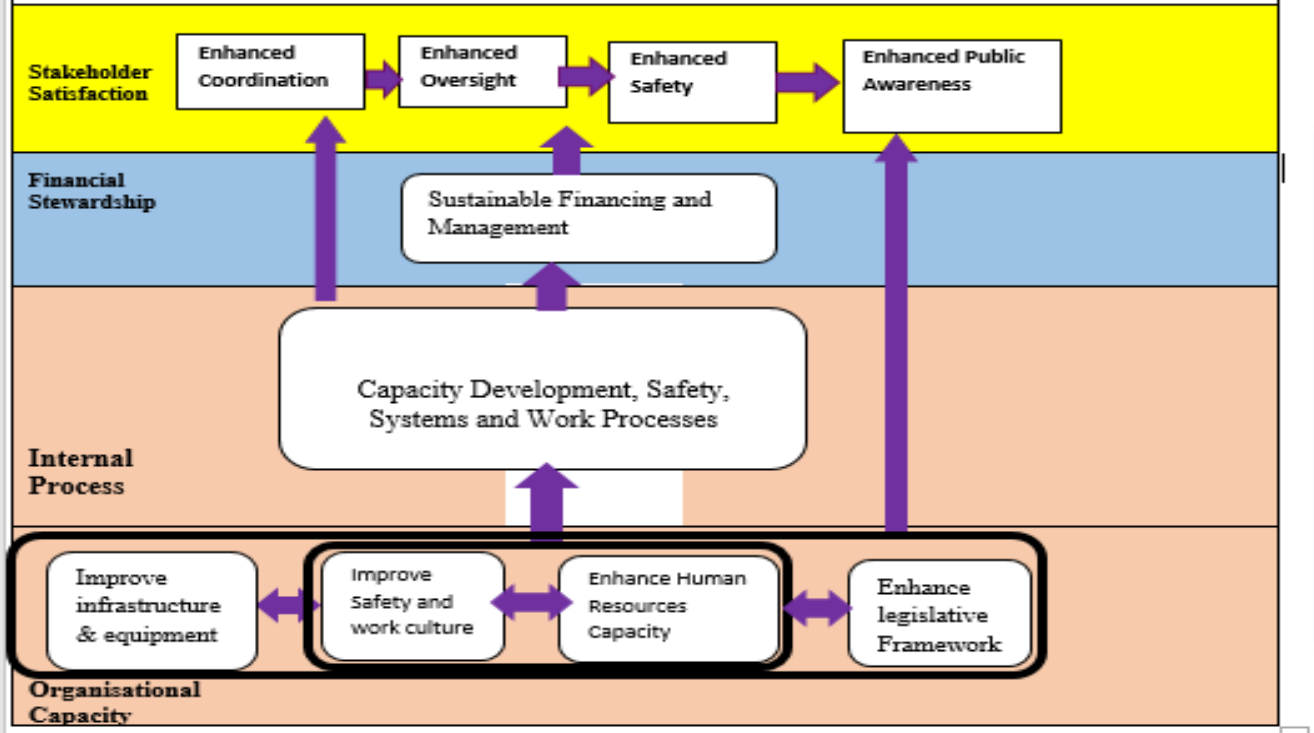
- As a way of developing the soft and hard infrastructure, the Zambian government sought the help of ROSATOM to carry out Comprehensive Nuclear Infrastructure Assessment using IAEA standards and methodology.

- Assessment of existing soft and hard nuclear infrastructure in the Republic of Zambia, identified ***critical gaps*** that require attention for a successful Nuclear Program implementation.

What has been our Approach to remedy the situation? Balanced Score Card for ZAMATOM

Vision	A Smart, Safe and Principle based Nuclear Industry		
Values	Safety; Transparency; Accountability; Professionalism; Innovation; Dynamic; Integrity; Confidentiality; and Teamwork.		
Strategic Theme	Oversight and Transformation Excellence	Service Excellence	Operational Excellence
Strategic Results	Effective and Efficient Nuclear Industry	Satisfied Clients	Quality Services
Mission	To coordinate, facilitate, dialogue, oversight and provide enabling environment for nuclear industry.		

STRATEGIC OBJECTIVES AND STRATEGY MAPS



Strategies Next Five Years (2020-2025), key milestones

- Develop a 100 years plan divided into five periods.
- Finalise Nuclear Energy Bill, 2019, which establishes ZAMATOM and the Radiation and Nuclear Safety Authority consistent IAEA.
- Develop comprehensive National Nuclear Energy Policy that meets international standards.
- Develop a sustainable financing model for the nuclear industry.
- ZAMATOM to develop owner/operator for Nuclear Research Centre and Nuclear Power Plant (NPP).
- Enforcement of Contracts, Project Development Agreements (PDA) and EPC Contracts.
- Develop and implement a comprehensive public awareness, communication and stakeholder engagement strategy.
- Facilitate construction of the Nuclear Research Centre and NPP after feasibility.
- Develop a smart grid to facilitate the uptake and distribution of electricity from NPP.
- Develop and implement a comprehensive staff development plan for the Nuclear Research Centre and NPP.
- Creation of forward and backward linkages overtime in the entire value chain of the nuclear industry

What has been our Approach to remedy the situation? Multi-Sector & Parallel Project Implementation (cont.)

Project 1: Interventions to Remedy-Soft Infrastructure

Joint Working Groups Year 1

Joint Working Groups Year2

Joint Working Groups Year 3

Joint Working Groups Year 4…

Project 2: Intervention To Remedy Hard Infrastructure

What has been the results of using this approach?

Soft Infrastructure

•A number of Soft Infrastructure have been put in place to ensure speedy implementation of the nuclear program. These include:

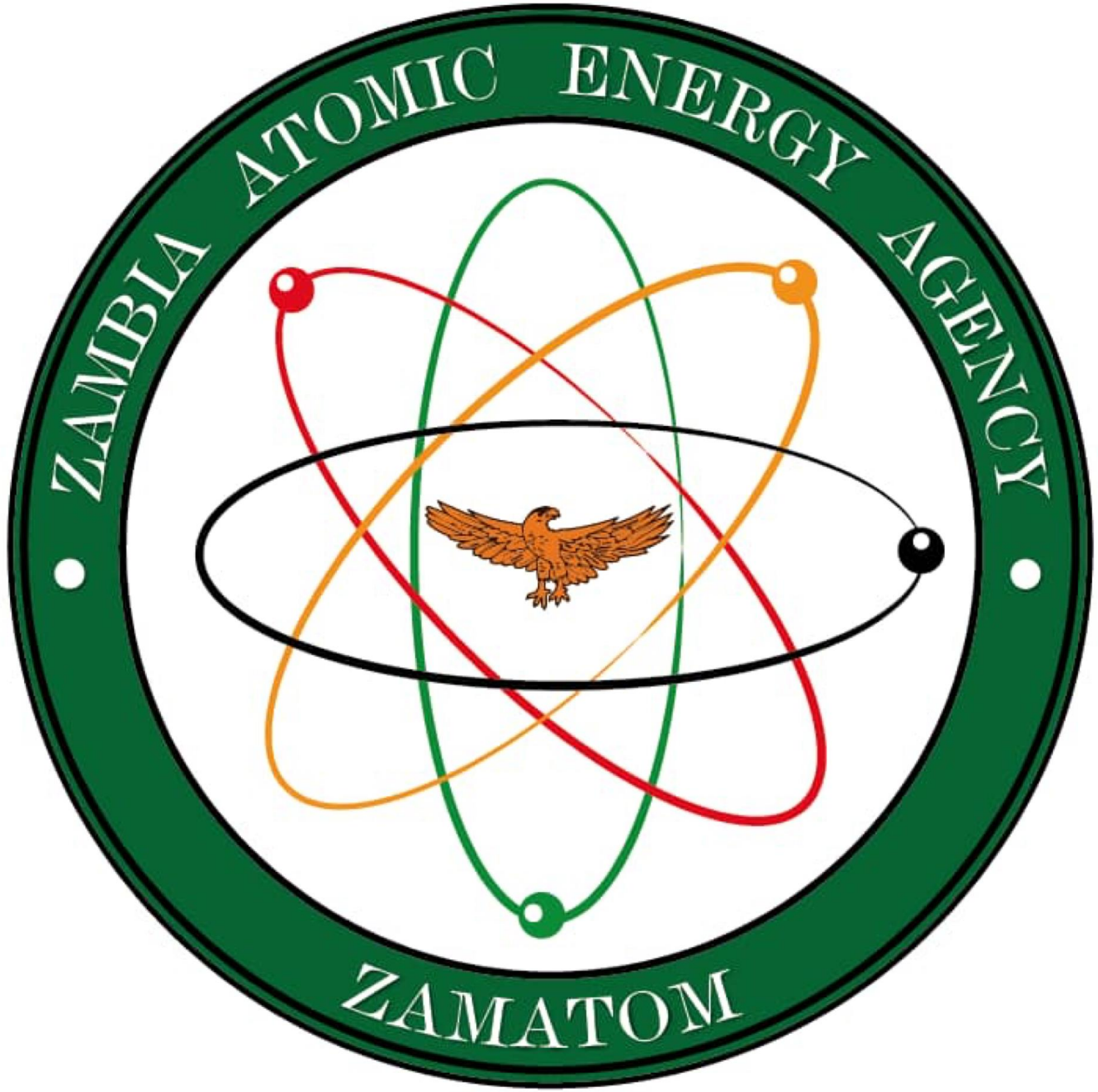
- Drafted layman's Comprehensive Bill on Nuclear Energy – 2019 (Using Russia as Benchmark)
- Developed and started implementing Human Resource development plan
- Multi-level and Multi sector Stakeholder engagement
- Initiated Strengthening of the key Regulators, (Zambia Environmental Management Agency (ZEMA and the Radiation Protection Authority (RPA))

Hard Infrastructure

•Site Survey and Selection, evaluation for the RR

•Environmental assessment by Zambia Environmental Management Agency

•Initial discussions around Design, Construction, Commissioning, Operation and Decommissioning of RR and NPP


ZAMBIA ATOMIC ENERGY AGENCY
ZAMATOM

Thank
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