



NATIONAL NUCLEAR REGULATOR

For the protection of persons, property and the environment
against nuclear damage

AMENDED STRATEGIC PLAN

2020–2025



caring



excellence



integrity



openness &
transparency



teamwork



safety & security

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ABBREVIATIONS

CAP	Compliance Assurance Programme
CEO	Chief Executive Officer
CNSC	Canadian Nuclear Safety Commission
CNSS	Centre for Nuclear Safety and Security
CoCT	City of Cape Town
COVID-19	Coronavirus Disease 2019
CSS	Corporate Support Services
DMRE	Department of Mineral Resources and Energy
IAEA	International Atomic Energy Agency
ICRP	International Commission on Radiological Protection
ICT	Information and Communications Technology
IRP	Integrated Resource Plan
ISO/IEC	International Organization for Standardization and the International Electrotechnical Commission
KPI	Key Performance Indicator
KNPS	Koeberg Nuclear Power Station
LTO	Long Term Operation
MOV	Means of Verification
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework
NECSA	South African Nuclear Energy Corporation
NGO	Non-Governmental Organisation
NIL	Nuclear Installation Licence
NDP	National Development Plan
NNR	National Nuclear Regulator
NORM	Naturally Occurring Radioactive Material
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NRWDI	National Radioactive Waste Disposal Institute
NTN	Nuclear Technology and NORM
NVL	Nuclear Vessel Licence
ONR	Office for Nuclear Regulation
PoE	Portfolio of Evidence
POPIA	Protection of Personal Information Act
PPPFA	Preferential Procurement Policy Framework Act
RADCON	Directorate Radiation Control
RITS	Regulatory Improvement and Technical Services
SAHPRA	South African Health Products Regulatory Authority
SANAS	South African National Accreditation System
SCM	Supply Chain Management
SDBIP	Service Delivery and Budget Implementation Plan
SGR	Steam Generator Replacement
SMR	Small Modular Reactor
TSO	Technical Assessment Guide
UK	United Kingdom
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation

USA	United States of America
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¹EXECUTIVE AUTHORITY STATEMENT

The NNR Board is pleased to present the Strategic Plan for the financial year 2020-2025. The NNR is a regulatory body established in terms of Section 3 of the National Nuclear Regulator Act (No.47 of 1999). This Strategic Plan serves as an update of the version that was produced in the 2020/21 financial year; therefore, this plan will only outline updated interventions that the NNR will implement over the MTSF period, thus contributing towards the achievement of national priorities.

As we enter the second year of the current MTSF, the Chairperson and the Board of Directors commit to ensuring that the Strategic Plan is effectively implemented. The past performance and industry requirements continue to affirm its relevance and prospects in serving the country. The continuation of the adopted priority 6 – “Social Cohesion and Safe Communities” as per the medium-term strategic framework sums up the regulator’s contribution in this regard.

Key developments surrounding the Integrated Resource Plan (IRP), the preparation for the extension of the Long-Term Operation (LTO), as well as the readiness to regulate the Small Modular Reactors (SMRs) remain areas of interest for the Regulator during this strategy cycle (2020-2025).

The continued impact of the COVID-19 pandemic to the industry resulted in negative results for the mining industry. We experienced an increase in licence surrenders and mine closures from some of the facilities that NNR regulates. Fiscal constraints on authorisation fees remain critical; however, the organisation continues to strive for financial viability despite the economic status and compliance with austerity measures as pronounced by government.

In spite of these challenges, the NNR continues to strive for excellence in safety regulation. Therefore, I would like to take this opportunity to thank the Minister and Department of Mineral Resources and Energy, the Board of the NNR, as well as the staff and stakeholders of the Regulator for their commitment, and the passion with which they strive to fulfil the mission of the organisation.

Dr Thapelo Motshudi

Chairperson of the Board
National Nuclear Regulator.

¹ As per section 49 (2) (a) of the Public Finance Management Act Section 49 (2) (a), – The NNR Board is the accounting authority of the NNR.

ACCOUNTING OFFICER STATEMENT

The revised 2020-25 Strategic Plan of the National Nuclear Regulator was developed in line with the Revised Framework for Strategic Plans and Annual Performance Plans. The NNR has developed this Strategic Plan, which is aligned to the 2020/2021-2024/2025 Medium-Term Strategic Framework. The new framework introduced a shift in the planning process, whereby government wide planning institutions are required to focus on impact and outcomes instead of outputs and activities.

For this period, the implementation of this planning document will be expressed through our 2022/23 APP (that is prepared on an annual basis for quarterly monitoring and reporting purposes). The outputs and activities are stated in our APP, which outlines the regulatory priorities from compliance assurances, reviews and assessments, preparatory work for the extension of the Long-Term Operations of Koeberg, the NNR Lab Accreditation by SANAS, the state of readiness in regulating the Small Modular Reactors and the ensuring of stable finances amidst the economic status and governments austerity measures. However, these remain as plans until implementation. Should there be major changes in the environment, as has been in the last two financial years, the NNR will respond with the necessary agility to adjust the APP with permission from its principals and relevant authorities.

It is within this context that we look forward to implementing our planned goals and priorities of government as contained in the National Development Plan (NDP) in order to achieve social cohesion and safer communities. We will do this by protecting our people, property and the environment from harmful effects of radiation.

We anticipate strengthened working relationships with our stakeholders for the betterment of South Africa. I therefore invite all our stakeholders to fully support our strategy and plan in order to ensure that the NNR is rightfully positioned.

Dr Mzubanzi Bismark Tyobeka
Chief Executive Officer (CEO)
National Nuclear Regulator

OFFICIAL SIGN-OFF

It is hereby certified that this Strategic Plan:

- Was developed by the Board of Directors and Management of the National Nuclear Regulator.
- Takes into account all relevant policies, legislation and other mandates for which the National Nuclear Regulator is responsible.
- It accurately reflects the impact and outcomes which the NNR will endeavour to achieve over the period 2020-2025.

Ms Nontsikelelo Kote

Manager: Strategy, and Organisational Performance

Date: _____

Mr Dakalo Netshivhazwaulu

Chief Financial Officer

Date: _____

Dr Mzubanzi Bismark Tyobeka

Chief Executive Officer

Date: _____

Approved by:

Dr Thapelo Motshudi

Chairperson of the Board

Date: _____

PART A: OUR MANDATE

Applicability of the Revised Framework

As a Schedule 3A entity of the State, The National Nuclear Regulator is subject to the government-wide guidelines and stipulations in so far as strategic and financial planning is concerned. This is important for two reasons:

1. Using the revised framework assists the NNR’s Strategic Plan to demonstrate alignment to overall Energy Policy and the Department of Mineral Resources and Energy’s strategy in both content and format.
2. The extent to which the guidelines have been applied by entities is an auditable criterion by the Auditor-General of South Africa (AGSA) and thus the NNR must also demonstrate adherence to this.

The NNR’s plan is developed on a five (5) year rolling plan determined by the manifesto and term of office of the ruling party. The annual performance plan (APP) will be developed as guided by the framework.

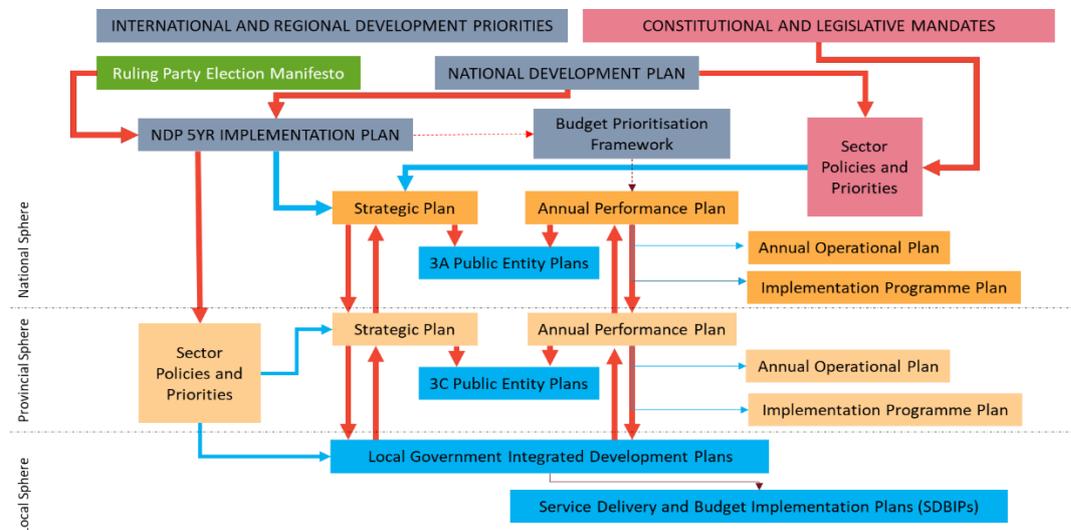


Figure 1: Overview guideline of the framework

The Revised Framework applies to all national departments, provincial departments and government components listed respectively in Schedule 1, Schedule 2 and Schedule 3 of the Public Service Act (1994) and the Public Service Amendment Act (Act No. 30 of 2007); and to constitutional institutions listed in Schedule 1 and public entities listed in Parts A and C of Schedule 3 of the Public Finance Management Act (PFMA) (Act No. 1 of 1999).

1. CONSTITUTIONAL MANDATE

The National Nuclear Regulator (NNR) is a public entity which is established and governed in terms of Section 3 of the National Nuclear Regulator Act, (Act No. 47 of 1999).

The fundamental objective of the NNR is to provide for the protection of persons, property and the environment against nuclear damage through the establishment of safety standards and regulatory practices suited for South Africa. To this end, the NNR provides oversight and assurance that activities related to peaceful use of nuclear energy in South Africa are carried out in a safe manner and in accordance with international principles and best practices.

The NNR derives its mandate from the Constitution of the Republic of South Africa of 1996 in that it is vested with the legal obligation to protect the environment against nuclear damage. Hence the strategy adopted by the NNR seeks to be congruent with the provisions of Section 24 of the Constitution, more specifically chapter 2, the Bill of Rights which reads as follows:

Everyone has the right-

- (a) to an environment that is not harmful to their health or wellbeing; and
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -
 - (i) prevent pollution and ecological degradation
 - (ii) promote conservation
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

2. LEGISLATIVE AND POLICY MANDATE

As a Schedule 3A state-owned entity, the NNR's mandate is derived from Section 3 of the National Nuclear Regulator Act (Act No.47 of 1999). The Act gives effect to the NNR to provide the responsibilities stated below.

The NNR also contributes to Programme 5 of the Department of Mineral Resources and Energy, on nuclear energy.

The purpose of Programme 5 is to manage the South African nuclear sector in terms of international obligations, nuclear legislation and policies to ensure the peaceful use of nuclear energy and nuclear technologies.

The programme has the following sub-programmes:

- Nuclear safety and technology,
- Nuclear non-proliferation and radiation security and
- Nuclear policy.

The following is some of the legislation the NNR must comply with:

Legislation	Legislation
Basic Conditions of Employment Act, No. 75 of 1997	Promotion of Administrative Justice Act, No. 3 of 2000
Broad Based Black Economic Empowerment Act, No. 53 of 2003	Protected Disclosures Act, No.26 of 2000
Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993	Protection of Equality and Prevention of Unfair Discrimination Act, No. 4 of 2000
Constitution of the Republic of South Africa, 1996	Protection of Information Act, No.84 of 1982
Electronic Communications and Transactions Act, No. 25 of 2002	Protection of Personal Information Act, No. 4 of 2013
Employment Equity Act, No. 55 of 1998	Promotion of Access to Information Act, No. 2 of 2000
Government Immovable Assets Act, No.19 of 2007	Public Finance Management Act, No. 1 of 1999
Income Tax Act, No. 58 of 1962	Regulation of Interception of Communications and Provision of Communications and Provision of Communication-related information Act, No. 70 of 2002
Intergovernmental Relations Framework Act, No.13 of 2005	Skills Development Act, No.97 of 1998
Labour Relations Act, No. 66 of 1995	Skills Development Levies Act, No.9 of 1999
National Archives and Record Service of South Africa Act, No. 43 of 1996	Tobacco Products Control Act, No. 83 of 1993
National Environmental Management - Waste Act, No.59 of 2008	Unemployment Insurance Act, No. 63 of 2001
Occupational Health and Safety Act, No. 85 of 1993	Unemployment Insurance Contributions Act, No.4 of 2002
Pension Funds Act, No. 24 of 1956	Unemployment Insurance Act, No. 63 of 2001
Preferential Procurement Policy Framework Act, No. 5 of 2000	Use of Official Languages Act, No. 2 of 2012

Table 1: Overview of relevant legislation regulating the NNR

3. INSTITUTIONAL POLICIES AND STRATEGIES

As outlined in the Revised Framework for Strategic Plan and Annual Performance Plans, government institutions are accountable to the citizens, through Parliament, for delivering on national development priorities. Therefore, the NNR’s planning documents are aligned with that of government.

Furthermore, the framework stipulates that all national, provincial and local government institutions must ensure that the National Development Plan (NDP) priorities are reflected in their institutional Strategic Plans and Annual Performance Plans, as described in the Medium-term Strategic Framework (MTSF) for the relevant planning cycle.

These priorities, though enduring, are refined on an annual basis based on key governmental priorities as highlighted in the annual State of the Nation Address (SONA). Therefore, In July 2019, government adopted seven priorities to take South Africa forward amongst others, the NNR adopted the theme: Social Cohesion and Safe Communities this priority is achieved through the Regulator’s **mandate by providing for the protection of persons, property and the environment against nuclear damage.**

The Regulator, through its developed plans endeavours to achieve and sustain the adopted priority in relation to women, youth and people with disabilities. To achieve this, the NNR will continue working and engaging with all its stakeholders (internal and external) and had to develop output indicators that are intended to address and empower individuals from designated groups as per procurement spend on designated groups in terms of the (PPPFA).

The below outlines the link between planned performance descriptions and its contribution in line with the NDP, MTSF as well as DMRE priorities.

Link to NDP	Link to MTSF	Link to DMRE Priorities/Outcomes
<p>Chapter 12: Building safer communities</p> <ul style="list-style-type: none"> • Safety and security also link to infrastructure and access to sustainable livelihoods. • Building safer communities is a holistic activity and involves many stakeholders. 	<p>Priority 6: Social Cohesion and safe communities.</p> <ul style="list-style-type: none"> • Safety and security are directly related to socio-economic development and equality. • A safe and secure country encourages economic growth and transformation and is therefore an important contributor to addressing the triple challenge of poverty, inequality and unemployment. 	<ul style="list-style-type: none"> • Improve security of supply for nuclear energy. • Strengthen the control of nuclear material and equipment. • Strengthen physical protective measures for nuclear material and facilities. • Improve security of supply for nuclear energy.

4. RELEVANT COURT RULINGS

In the current planning cycle, no new court rulings were identified. The MacDonald case regarding the development in zoned areas in 2011 remains the most recent ruling relevant to the NNR.

PART B: OUR STRATEGIC FOCUS

1. Vision

To be recognised as a caring and trusted nuclear and radiation safety Regulator.

2. Mission

To provide and maintain an effective national regulatory framework through innovation in the protection of persons, property and the environment against radiation damage.

3. Values

The NNR subscribes to six key values. Each of the value descriptors are as follows:

Value	Description
<i>Excellence</i>	Delivering outstanding quality of work, efficiently, effectively and innovatively.
<i>Integrity</i>	Acting in a non-biased, fair, objective, consistent, honest, reliable, principled way.
<i>Openness and Transparency</i>	Openness and transparency in the regulatory decision-making process and the communication of regulatory decisions.
<i>Safety and Security</i>	Upholding a culture of safety and security within the organisation, with holders of nuclear authorisations and in our interactions with all other stakeholders.
<i>Teamwork</i>	Being a cohesive team that works collaboratively to realise common goals to deliver exceptional results.
<i>Caring</i>	Recognising and appreciating our-stakeholders by valuing their inputs, showing empathy and creating a conducive and supportive environment.

Table 2: Values of the NNR

4. SITUATIONAL ANALYSIS OF THE NNR

A situational analysis provides a broad overview of an organisation's external and internal perspective and allows the organisation to define its key drivers for the current strategy. For this planning cycle, the problem tree analysis was applied.

This planning tool allows the organisation to analyse its issues using the analogy of a tree where the top of the tree symbolises the visible effects, the trunk of the tree symbolises the issues that the organisation is currently facing, and the roots of the tree symbolise (often hidden) root causes that bring about the effects or impacts.

This analysis allows the organisation to establish causality and to carefully map out its plans with an understanding of cause and effect (see Figures 2,3,4 and 5). The possible solutions are addressed as part of our Outcomes, Outputs, Performance Indicators and Targets.

External Challenges

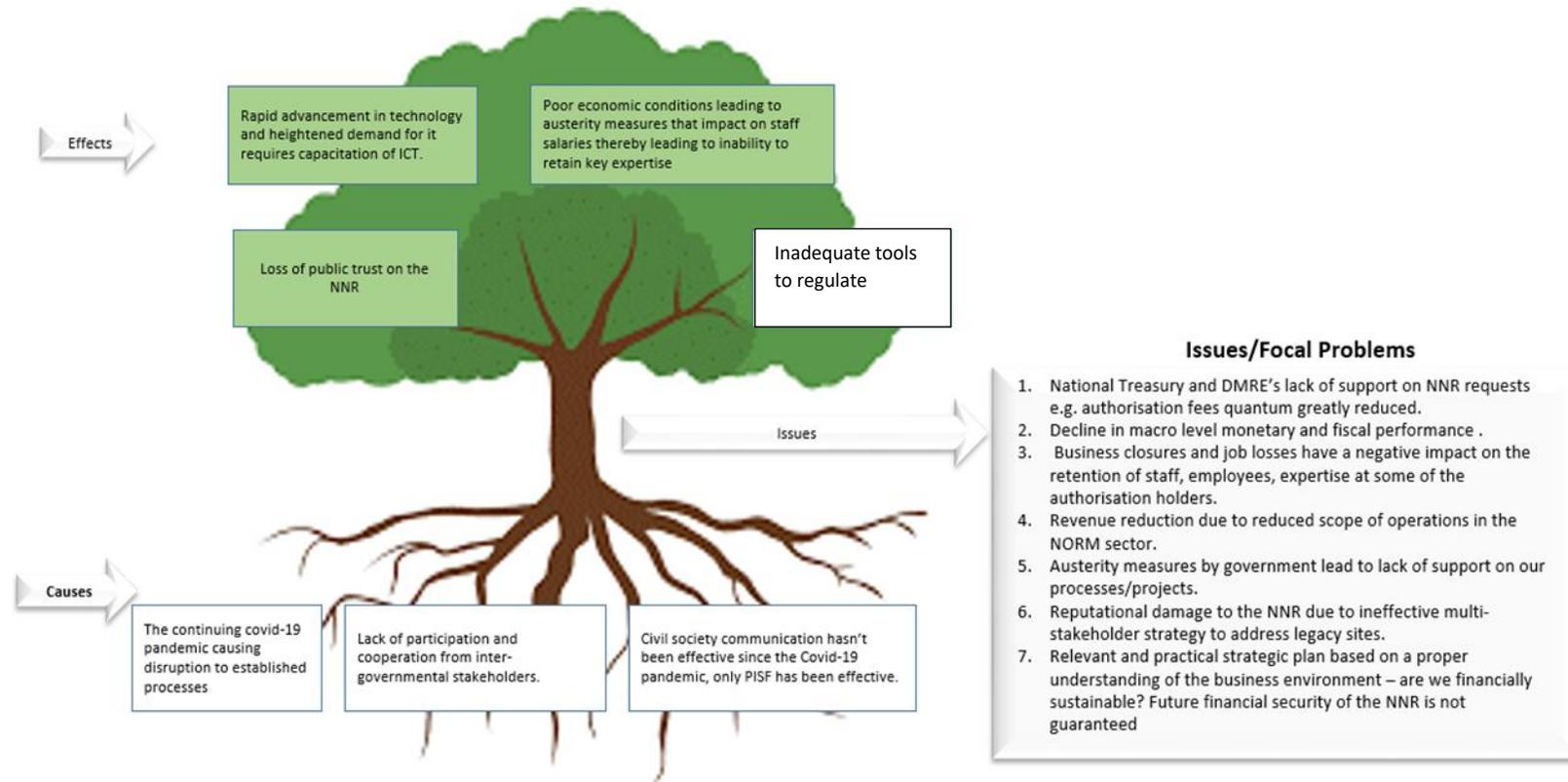


Figure 2: External Analysis Problem Tree

Solution to External Challenges

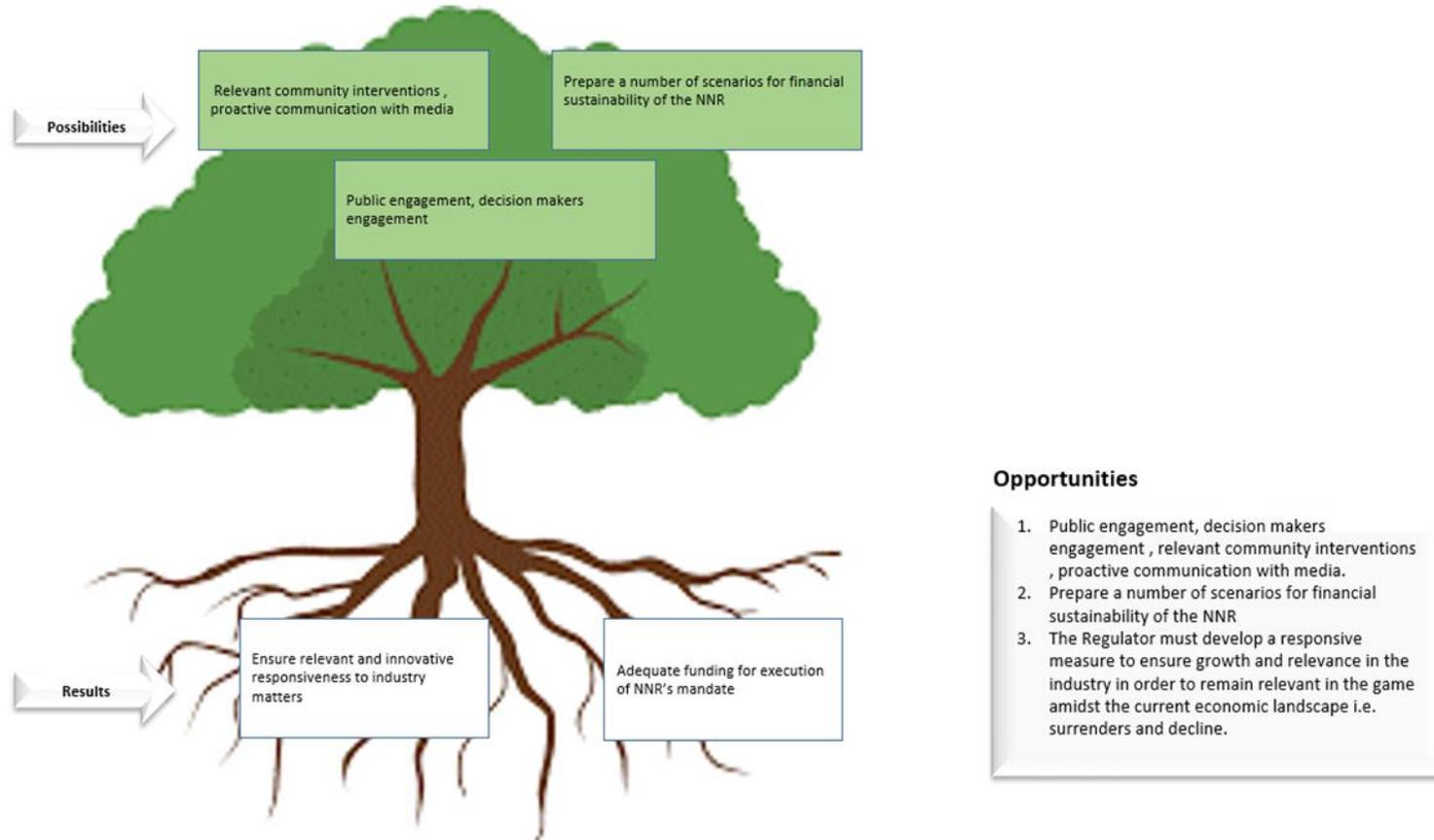


Figure 3: External Analysis Possible Solutions

Internal Challenges

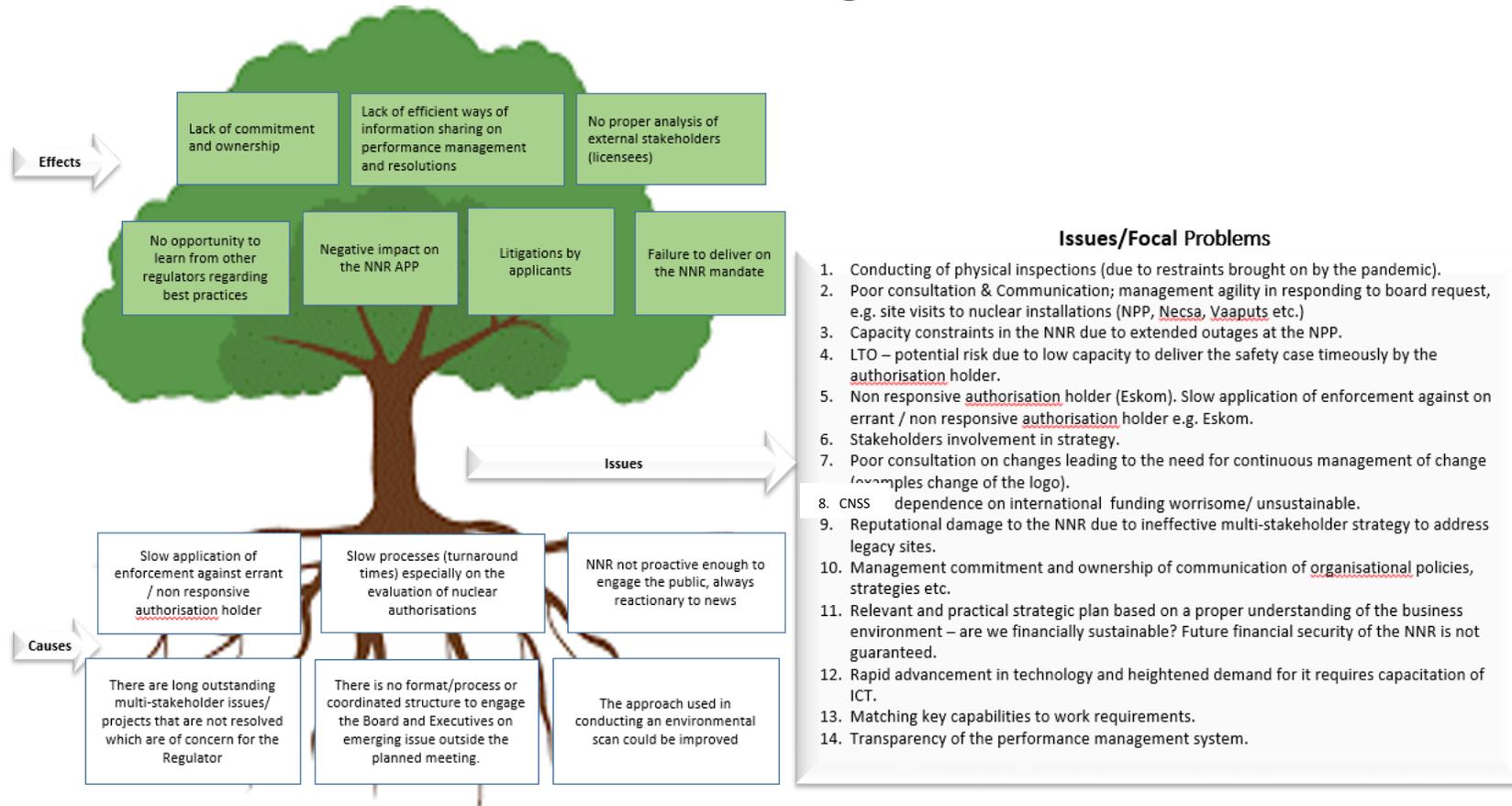


Figure 4: Internal Analysis Problem Tree

Solution to Internal Challenges

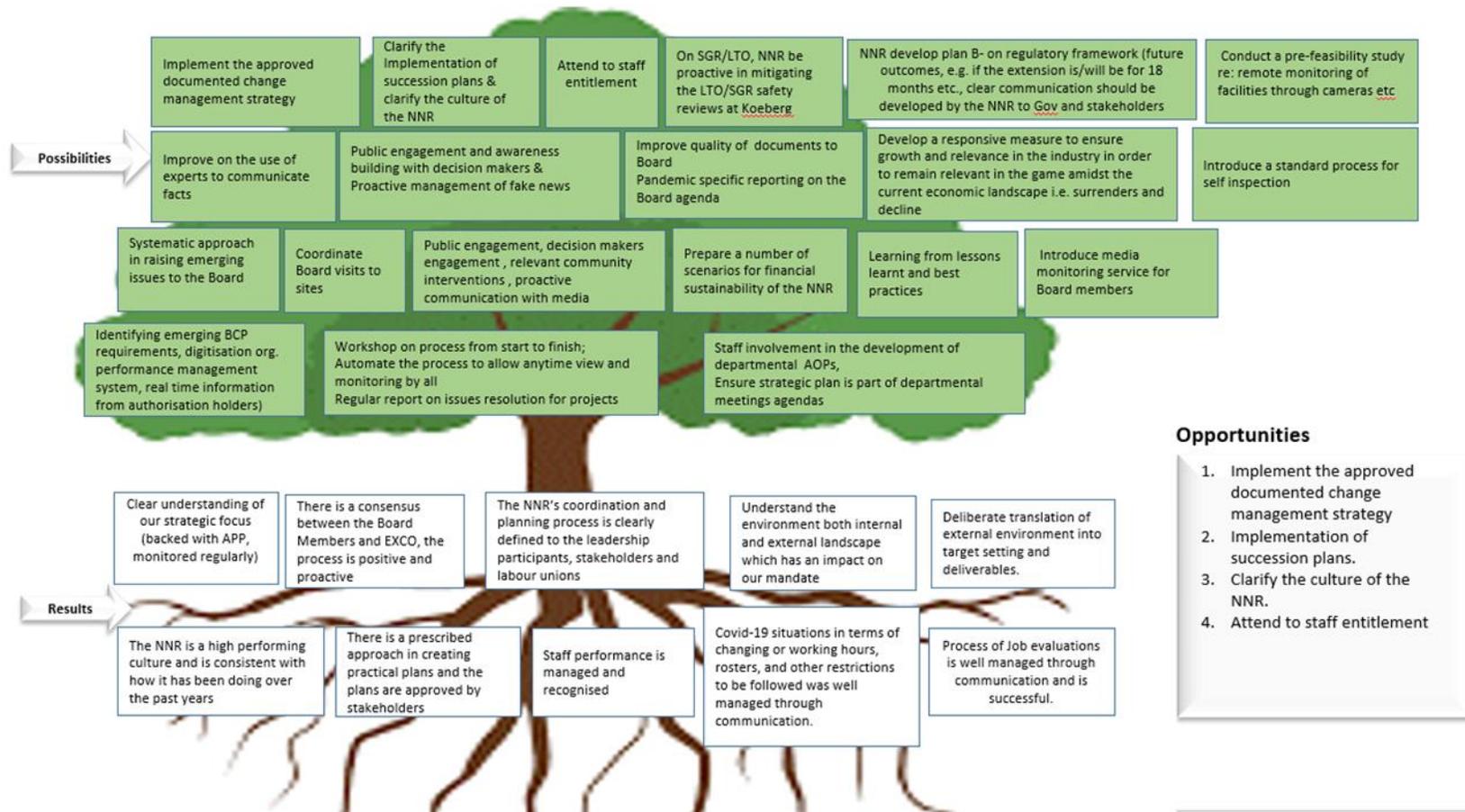


Figure 5: Internal Analysis Possible Solution

3. SCENARIO PLANNING

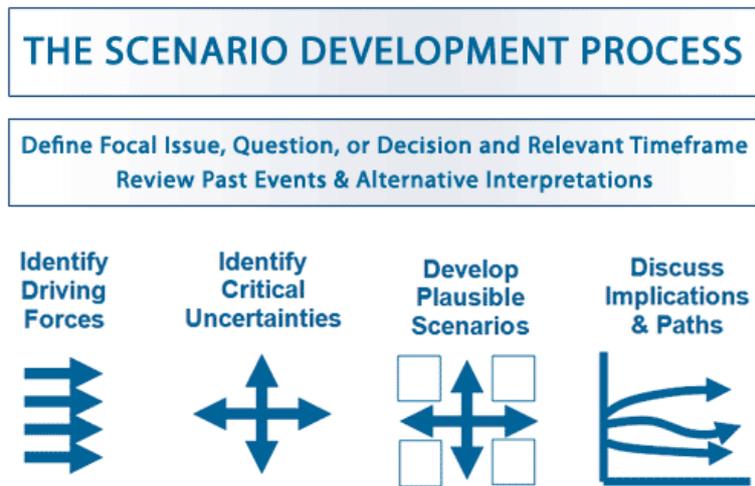


Figure 6a: Scenario planning 101

3.1. Building scenarios

Scenario planning is a strategic planning method that affords an organisation the opportunity to envision multiple alternative future scenarios and to plan accordingly. The NNR plotted four scenarios based on two opposing factors, namely good economic performance versus poor economic performance.

These factors were combined with two probable futures, the first being the maintenance of current capacity of nuclear energy, and the second being the implementation of the approved Integrated Resource Plan (IRP). The resultant scenarios are captured in Figure 6b below.

3.2. Four scenarios

- **Equilibrium:** Good economic performance and maintained current capacity of nuclear energy.
- **Myriad of challenges** Poor economic performance and maintained current capacity of nuclear energy.
- **Leap of Faith:** Poor economic performance and approved IRP implementation.
- **Full Steam Ahead – Safely:** Good economic performance and approved IRP implementation.

3.2.1. Scenarios explained

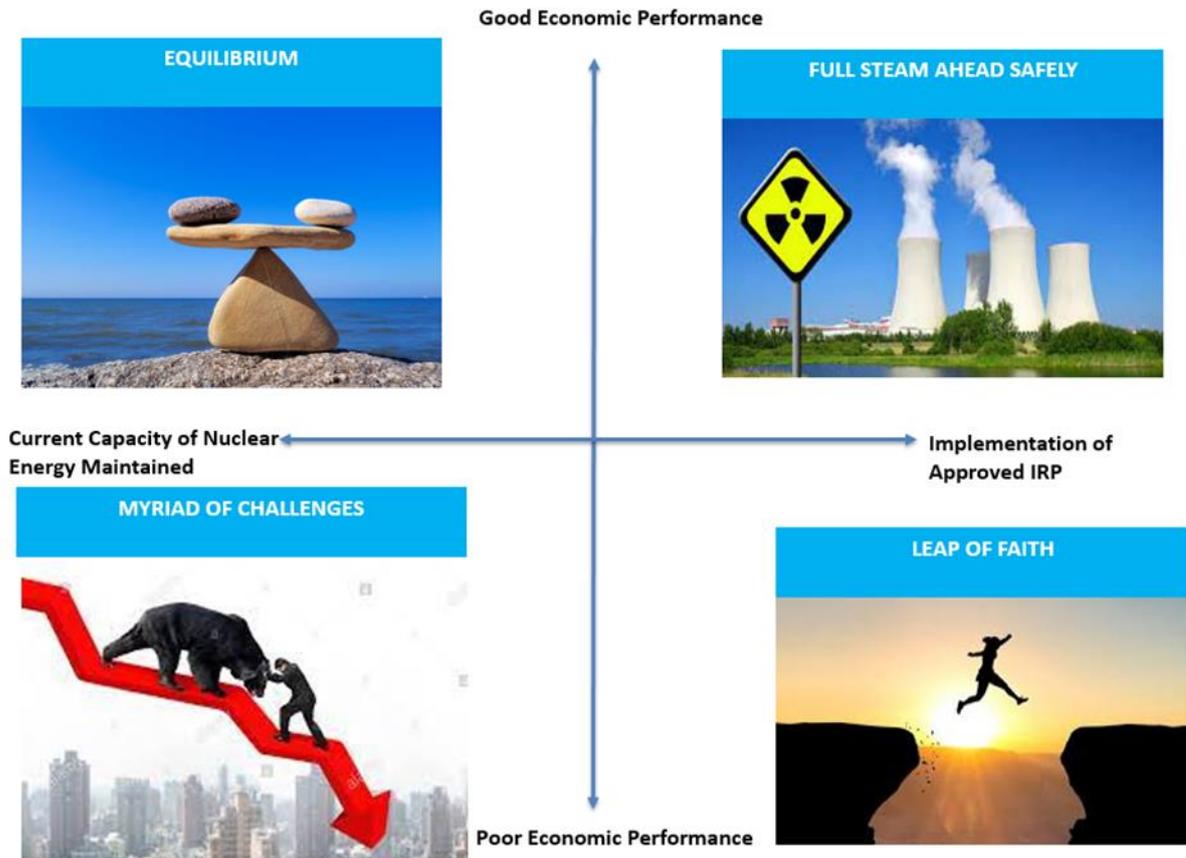


Figure 7b: Overview of scenarios for the NNR (2021-2025)

Equilibrium scenario

Equilibrium is a scenario based on good economic performance and maintained current capacity (operations) of nuclear energy (1 800 MWe, SAFARI-1). Table 3 provides a breakdown of the equilibrium scenario.

Political	<ul style="list-style-type: none"> • Maintained co-operation with other regulators (regional, continental and international)
Economic	<ul style="list-style-type: none"> • Industry has capital to maintain current operations • Restructuring of Eskom, i.e. possible relicensing of a different corporate operator • Investment in Naturally Occurring Radioactive Material (NORM) operations
Social	<ul style="list-style-type: none"> • Improved engagement with stakeholders • Regional economic spin-offs leading to social stability
Technological and regulatory	<ul style="list-style-type: none"> • Improved nuclear safety and security • Licensing of the National Radioactive Waste Disposal Institute (NRWDI) continues • More research, training and development (capacity building and generation of intellectual property) • Industry investing in new technology • Attraction and retention of skills • NNR imposes financial provisions for decommissioning and rehabilitation • Operators have funds to implement compliance assurance programmes
Environmental	<ul style="list-style-type: none"> • Increasing number of applications for Certificates of Registration and increasing production of NORM waste
Legislative	<ul style="list-style-type: none"> • Government response to nuclear safety related approvals and amendments to legislation • Growth of NNR scope (take over relevant Hazardous Substances Act responsibilities)

Table 3: Equilibrium scenario

Myriad of challenges

Myriad of challenges is a scenario based on poor economic performance and maintained current capacity (operations) of nuclear energy (1 800 MWe, SAFARI-1). Table 4 provides a breakdown of the myriad of challenges scenario.

Political	<ul style="list-style-type: none"> • Political interference • International interference • International Monetary Fund and World Bank loans (threats to sovereignty)
Economic	<ul style="list-style-type: none"> • No investment in nuclear new build • Financial woes (safety compromises) • Energy supply not secured due to failure of independent power producers to materialise (subdued economic activity) • Financial unsustainability of authorisation holders
Social	<ul style="list-style-type: none"> • Social unrest, increase in poverty and crime (illegal mining and theft of nuclear material) • Increased activism • Socio-economic inequality • Loss of skills to other countries that have nuclear programmes
Technological and regulatory	<ul style="list-style-type: none"> • Increased automation of regulatory processes • Inability to comply with international obligations • Increased independent electricity generation
Environmental	<ul style="list-style-type: none"> • Coal is king • Dirty energy and pollution
Legislative	–

Table 3: Myriad of challenges

Leap of Faith scenario

The leap of faith scenario is based on poor economic performance and implementation of the approved IRP. Table 5 provides a breakdown of the leap of faith scenario.

Political	<ul style="list-style-type: none"> • Change in administration could lead to no nuclear investment, i.e. nuclear energy remains constant or is scaled down in the new IRP
Economic	<ul style="list-style-type: none"> • New nuclear build slows down, e.g. from 2 500 MW to 500 MW • NNR plans to regulate new nuclear build and planned allocation of staff to new build (IRP adjustment) • Initial growth in green energy (independent power producers) funded by international investors. Reduction over time (five years) in green energy investment (if the country is not offering returns to international investors). • As nuclear energy remains constant, regulation of the existing authorisation holders continues with the following features: <ul style="list-style-type: none"> ○ Poor performing economy due to budget cuts (reduction in grant allocated to the NNR by the DMRE) ○ Mines shut down (impact on the NNR’s scope of work) ○ Staff reduction in some areas ○ Non-compliance with licence conditions as authorisation holders take shortcuts and compromise on safety ○ Increased corruption in both internal and external environments
Social	<ul style="list-style-type: none"> • Social unrest, shutdown of facilities (NNR access to facilities for regulation purposes negatively affected)
Technological and regulatory	<ul style="list-style-type: none"> • Introduction of SMRs limited when the economy is not performing. However, NNR needs to train staff on the new technology, which may require international training (negative impact on the NNR’s budget). • New regulations for SMRs need to be developed
Environmental	<ul style="list-style-type: none"> • Waste generation at the mines increases waste management requirements in the long run, i.e. increased capacity, storage. Need for additional capacity from NNR to regulate these new developments.
Legislative	<ul style="list-style-type: none"> • New legislation/regulations, litigation by the environmental civil society groups (NNR may require additional budget to deal with court cases to defend regulatory decisions)

Table 4: Leap of Faith scenario

Full Steam Ahead – Safely scenario

In the full steam ahead scenario we see good economic performance and full implementation of the approved IRP. Table 6 provides a breakdown of the full steam ahead scenario.

Political	<ul style="list-style-type: none"> • Increased intergovernmental co-operation for mandates that overlap
Economic	<ul style="list-style-type: none"> • Prioritisation of other energy mix over nuclear
Social	<ul style="list-style-type: none"> • Increased awareness of nuclear/safety • Dispelling myths
Technological and regulatory	<ul style="list-style-type: none"> • Enabling environment for capacity building of regulatory staff • Increased green energy into the mix, necessitating localisation of technologies • Possible introduction of Small Modular Reactors • More nuclear/radiation science and technology applications • Increased capacity i.e. human, financial, security (physical/cyber) due to increased entities to be regulated • Regulatory research and development will grow based on existing operating experience, and advise other countries in the region
Environmental	<ul style="list-style-type: none"> • Remediation/rehabilitation of nuclear facilities in the event that policies change, i.e. Nuclear Power Plant (NPP) closure • Decommissioning safety prioritised in mines and nuclear installations
Legislative	– N/A

Table 5: Full Steam Ahead scenario

This plan is based on the leap of faith scenario since it is the most likely scenario in the medium term.

Therefore, the outcomes expressed by the Regulator have assumed an environment in which the economy continues to struggle, but the move towards implementing the IRP gains momentum.

PART C: MEASURING OUR PERFORMANCE

The Department of Planning, Monitoring and Evaluation revised its Framework for Strategic Plans and Annual Performance Plans.

The below results-based approach illustrated in Figure 9 shows the link between the various performance information concepts and stages. It is used with other planning tools to ensure that all factors contributing to the achievement of the intended results are taken into consideration.



Figure 7: Results-based concepts

Source: *Framework for Managing Programme Performance Information (2007)*.

The Framework should be implemented by both the national and provincial spheres of government and stipulates that institutions should provide an impact statement to which they contribute, as informed by legislative or policy mandate.

Therefore, the NNR exists to monitor and enforce regulatory safety standards for the achievement of safe operating conditions, prevention of nuclear accidents or mitigation of nuclear accident consequences, resulting in the protection of persons, property and the environment against the potential harmful effects of ionising radiation or radioactive material.

The overall impact statement of the NNR towards its key planned activities in the long- to medium-term is supported by its vision and mission statement and will contribute to Priority 6: Social Cohesion and Safe Communities. The impact statement of the NNR is as follows:

1. INSTITUTIONAL PERFORMANCE INFORMATION

2. Impact Statement

A South Africa that is safe from nuclear and radiation damage and ensured safety towards persons, property, and the environment

3. Measuring our outcomes

A South Africa that is safe from nuclear and radiation damage and ensured safety towards persons, property, and the environment

MTSF Priority	6: Social Cohesion and Safe Communities		
Outcome	Outcome Indicator	Baseline	Five-year target
Ensure proactive management of potential litigation	Number of rulings in favour of NNR	N/A	Total number of litigious matters successfully defended by the NNR
Enhance stakeholder engagements (internally and externally)	% of stakeholders engagement activities in relation to plan	100% stakeholder engagement plan implemented	100% stakeholder engagement plan implemented
Enhance ICT capabilities to enable business support	% implementation of NNR ICT Strategy	100% implementation of the ISO:27001 plan	100% implementation of NNR ICT Strategy
Adequate funding for execution of NNR's mandate	% funding of CNSS planned activities	100% funding of NNR planned activities	100% funding of NNR planned activities

MTSF Priority	6: Social Cohesion and Safe Communities		
Outcome	Outcome Indicator	Baseline	Five-year target
Financial Sustainability of the CNSS	% funding of CNSS planned activities	100% funding of NNR planned activities	100% funding for the CNSS
Inclusion of previously disadvantaged individuals in economic activities	% procurement spent on designated groups	50% of procurement spent on designated groups	70% of procurement spent on designated groups
Provision of adequate and safe facilities for the site office	% of activities in the Cape Town Construction plan	N/A	100% of activities in the Cape Town Construction plan
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	% of inspections and reviews and assessments undertaken as per annual plan	100% of planned inspections and reviews and assessments undertaken	100% of planned inspections and reviews and assessments undertaken
Provide an effective oversight of the Long-Term Operations	Regulatory decision on the LTO	Approved resource plan for LTO	Final safety evaluation report
Provide an independent radio-analytical verification capability and capacity	SANAS Accreditation Report	SANAS application for Gamma Spec: (Soil/Sediment and Water) Review Report	SANAS application for Alpha Spectrometry: Uranium, Radium and Thorium in water.
Ensure the readiness to Regulate SMRs	% implementation of the approved SMR plan	N/A	100% implementation of the approved SMR plan

MTSF Priority	6: Social Cohesion and Safe Communities		
Outcome	Outcome Indicator	Baseline	Five-year target
Ensure the long-term sustainability of the CNSS	% of CNSS programme successfully implemented	Approved CNSS Sustainability Plan	CNSS Programme Evaluation Report

3.1 Explanation of planned performance over the five-year planning period

All planned output indicators are achieved in line with the institution’s policies and strategies. The planned performance is linked with the NNR’s targets, outcomes, and contributes towards achieving the NDP and the MTEF priorities, particularly towards social cohesion and safe communities.

The NNR has identified and adopted the below listed outcomes for the next five-year cycle. These are reviewed on an annual basis to test relevance and to ensure alignment with prevailing circumstances. They are outlined as follows:

Outcomes:

- Provide an independent radio-analytical verification capability and capacity
- Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation
- Provide an effective oversight of the Long-Term Operations
- Ensure the readiness to Regulate SMRs
- Ensure the long-term sustainability of the CNSS
- Enhance stakeholder engagements (internal and external)
- Enhance ICT capabilities to enable business support
- Ensure proactive management of potential litigation
- Provision of adequate and safe facilities for the site office
- Adequate funding for execution of NNR’s mandate
- Financial Sustainability of the CNSS
- Inclusion of previously disadvantaged individuals in economic activities

4. KEY RISKS AND MITIGATION

Outcome	Key risk	Risk mitigation
Provide an independent radio-analytical verification capability and capacity.	Lack of SANAS accreditation for existing Laboratory methods.	<ul style="list-style-type: none"> Updating of the accreditation plan and development SANAS corrective action plan. Implementation of the activities of the approved accreditation plan and SANAS corrective action plan.
Ensure the readiness to regulate SMRs	Inadequate Regulatory Standards to regulate and authorise SMR's or new technology	<ul style="list-style-type: none"> 1. Update and implement SMR Annual Plan. 2. Progress Report on Gap Analysis on Regulatory Standards as per SMR Annual Plan
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation.	Inconsistency in implementation of enforcement actions.	<ul style="list-style-type: none"> Develop Work Instruction for inspectors on implementation of enforcement actions. Finalise the enforcement modules of the Inspector training programme. Develop and implement the plan for grading matrix related to non-compliances. Development of non-compliance database.
	Failure to complete compliance assurance activities on time (inspections, environmental verification, investigation, etc.)	<ul style="list-style-type: none"> Fill existing vacancies that are funded as they arise.
	Failure to complete NISL and SGR review and assessment tasks	<ul style="list-style-type: none"> 1. Identify project leader/team leaders 2. Appoint project leader/team leaders
	Failure to complete effective consultations with all relevant external stakeholders on	<ul style="list-style-type: none"> 1. Initiate meetings involving organisation's CEOs / DGs or Executives.

Outcome	Key risk	Risk mitigation
	Indoor Radon Regulatory Framework	<ol style="list-style-type: none"> 2. Invite relevant stakeholders to workshop and meetings. 3. Develop focused communication providing details on each stakeholder role on indoor radon regulatory control in South Africa.
	Failure to complete reviews and assessment within timelines requested by applicants and authorisation holders	<ul style="list-style-type: none"> • 1. Continue to motivate for positions to be filled
Provide an effective oversight of the Long-Term Operations.	Delays in processing LTO application.	<ul style="list-style-type: none"> • Draft recommendation for LTO authorisation fees. • Streamline recruitment process to enable hiring competent individuals. • Internal training based on Technical Assessment Guide (TAG) 5. • Ensure public engagements by Eskom. • Collate information from bilateral partners in preparation for review.
	Undue pressure to finalise informed regulatory decision for LTOs	<ul style="list-style-type: none"> • Develop a Technical Assessment Guide. • Apprise the Executive Authority on progress made to the project. • Monitor Eskom's LTO dashboard.
Adequate funding for execution of NNR's mandate	Inability to sustain the NNR financially	<ul style="list-style-type: none"> • 1. Continue to pursue approval of funding model by the DMRE. • 2. Intensify financial compliance during compliance assurance activities.
Enhance ICT capabilities to enable business support.	Compromise of information and business continuity and inability to operate effectively in a changing environment.	<ul style="list-style-type: none"> • Conduct regular and ongoing environmental scans and risk assessments to identify new and emerging threats.

Outcome	Key risk	Risk mitigation
		<ul style="list-style-type: none"> • Conduct ICT security assessments and tests and implement remediation plans to address identified gaps. • Develop and implement a business continuity plan, which includes regular testing. • Implement ICT governance standards, monitor, and report on compliance with standards. • Implement ICT training and communication plan for employees. • Develop and implement a training plan for ICT personnel.
Ensure the long-term sustainability of the CNSS.	Inability to leverage relevant strategic partnership.	<ul style="list-style-type: none"> • Develop Spokes/Project specific agreements. • Implementation of revised CNSS processes (RRD/TSS/E&T/SPs).
Financial sustainability of the CNSS	Financial sustainability of the CNSS	<ul style="list-style-type: none"> • Implement and report on the interim sustainability strategies for each of the CNSS pillars and revise them as appropriate based on the pilot projects Implementation of Integrated CNSS Sustainability Plan in consultation with CSS/review of Pelekeza report and revise as appropriate based on the pilot projects.
Ensure proactive management of potential litigation.	Any possible legal challenges to NNR.	<ul style="list-style-type: none"> • Review and update NNR regulatory universe. • Assess and monitor compliance on a quarterly basis. • Monitor and report on legislative compliance.

Outcome	Key risk	Risk mitigation
		<ul style="list-style-type: none"> • Annual refresher training on POPIA training.
Enhance stakeholder engagements (internal and external).	Compromise and damage to the reputation of the regulator.	<ul style="list-style-type: none"> • Develop and implement a relevant 2022-2023 stakeholder engagement plan for internal and external stakeholders.
Provision of adequate and safe facilities for the site office.	Further project delay due to the demand of increase in fees by the professional service team	<ul style="list-style-type: none"> • Appointment of a mediator to intervene between parties in terms of the service level agreement.
Inclusion of previously disadvantaged individuals in economic activities.	Lack of capable service providers to deliver required scientific specialised services	<ul style="list-style-type: none"> • Continuous engagement with stakeholders in industry events and activities • Continuously testing the market and setting aside bids for PDI's where market is conducive.

Table 7: Key risks and mitigation

5. PUBLIC ENTITIES

Name of public entities	Mandate	Outcomes
N/A	N/A	N/A

Table 8: Public entities

PART D: TECHNICAL INDICATOR DESCRIPTION

Outcome	Ensure proactive management of potential litigation.
Indicator Title	Number of rulings in favour of NNR
Definition	The extent to which the NNR successfully addresses matters of litigation based on the organisation’s full compliance with primary and applicable legislation.
Source/Collection of Data	<ul style="list-style-type: none"> Quarterly legislative compliance report
Method of Calculation	A systems (Exclaim) generated % of compliance to legislation
Assumptions	<ul style="list-style-type: none"> Adequate capacity within Legal, Risk and Compliance Availability and co-operation from stakeholders (Act Owners and Workflow users) Available budget for the system
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	Majority of litigious matters successfully defended by the NNR Legal Team
Indicator Responsibility	Senior Manager: Legal Risk and Compliance

Outcome	Enhance stakeholder engagements (internal and external)
Indicator title	% of stakeholders engagement activities in relation to plan
Definition	This indicator measures the level the NNR engages with stakeholders internally and externally based on planned activities.
Source/Collection of Data	<ul style="list-style-type: none"> • Engagement plan • Corporate calendar
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Availability of financial and human resources to implement the plan. • Conducive external environment. • Co-operation from stakeholders.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% stakeholder engagement plans implemented
Indicator Responsibility	Divisional Executive: CSS

Outcome	Enhance ICT capabilities to enable business support.
Indicator Title	% implementation of NNR ICT Strategy
Definition	Implementation of the approved information communication and technology strategic plan to enhance business operations.
Source/Collection of Data	<ul style="list-style-type: none"> • Annual ICT security plan. • Relevant status reports.
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Business requirements timeously and clearly identified by divisions. • Timeous approval of planned initiatives by business. • Implementation of initiatives by divisions.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% implementation of NNR ICT Strategy
Indicator Responsibility	Divisional Executive: CSS

Outcome	Adequate funding for execution of NNR's mandate.
Indicator Title	
Definition	Budget plan for activities
Source/Collection of Data	Board approved budget
Method of Calculation	Milestones as per the organisational performance framework.
Assumptions	<ul style="list-style-type: none"> • Submission of complete authorisation holders' database in the beginning of the financial year. • Billing of authorisation holders within 60 days from the beginning of the financial year • The requested % increase of authorisation fees granted by the Minister of Minerals, Resources and Energy • There is not significant budget cuts/ austerity measures
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% funding of NNR planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Financial sustainability of the CNSS.
Indicator Title	% funding of CNSS planned activities
Definition	The implementation of the approved funding model to fund and sustain the CNSS.
Source/Collection of Data	<ul style="list-style-type: none"> • CNSS sustainability plan Approved funding model
Means of Verification (PoE)	<ul style="list-style-type: none"> • Approved quarterly financial report
Assumptions	<ul style="list-style-type: none"> • Viable and sustainable CNSS business case • Positive outcome of the CNSS funding model pilot project
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% funding of CNSS planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Inclusion of previously disadvantaged individuals in economic activities.
Indicator Title	% procurement spent on designated groups
Definition	The percentage of procurement spent against the total procurement value of planned bids, as per the Preferential Procurement Policy Framework Act (PPPFA). This is to ensure that previously disadvantaged individuals are included in the economic activities of the NNR.
Source/Collection of Data	<ul style="list-style-type: none"> • Demand Plan • Procurement records
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Response by prospective suppliers or service providers from the designated groups as the NNR invites bids.
Disaggregation of Beneficiaries (where applicable)	Designated groups in terms of the PPPFA
Spatial Transformation (where applicable)	N/A
Desired Performance	70% procurement spent on designated groups
Indicator Responsibility	Chief Financial Officer

Outcome	Provision of adequate and safe facilities for the site office.
Indicator Title	% of activities in the Cape Town Construction plan
Definition	This is the extent to which project milestones and activities are carried out to complete the project.
Source/Collection of Data	<ul style="list-style-type: none"> • Project plan • Business case (for the project).
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Availability of procurement spent. • Resource costs are consistent and within the 20% escalation by National Treasury. • The scope of the project will not change. • Implementation of the project schedule will be as planned by Professional Service Team, the NNR, and the Building Contractor.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% of activities in the Cape Town Construction plan
Indicator Responsibility	Chief Financial Officer

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	% of inspections and reviews and assessments undertaken as per annual plan
Definition	The number of regulatory inspections conducted based on the Compliance Assurance Plan (CAP). The number of reviews and assessments undertaken for effective nuclear and radiation safety regulation in the NORM, NTWP and NPP programmes .
Source/Collection of Data	<ul style="list-style-type: none"> • Compliance Assurance Plan • Inventory of inspections and reviews and assessments conducted Authorisation holder documentation/submissions and requests for various approvals to the NNR • Database of submissions • Letters to authorisation holder or applicant informing them of inspection/ reviews and assessments outcomes
Assumptions	<ul style="list-style-type: none"> • Availability of NNR human and financial resources • Availability of authorisation holder personnel • Availability of tools and equipment • NNR allowed unfettered access to sites
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% of planned inspections and reviews and assessments undertaken
Indicator Responsibility	Divisional Executive: NTN; Divisional Executive: NPP

Outcome	Provide an effective oversight of the Long-Term Operations.
Indicator Title	Regulatory decision on the Long-Term Operation (LTO)
Definition	This indicator measures the progress made in review the LTO safety case and the provision of oversight activities for the LTO.
Source/Collection of Data	<ul style="list-style-type: none"> • Resource plan • LTO Review plan • Safety evaluation report
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Timeous submissions from applicant. • Timely resolution of technical issues. • Quality of submissions. • Sufficient resources.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	Final safety evaluation report
Indicator Responsibility	Divisional Executive NPP

Outcome	Provide an independent radio-analytical verification capability and capacity
Indicator Title	RM1: SANAS Accreditation Gamma Spec: (Soil/Sediment/Water) ISO/IEC 17025:2017
Definition	This indicator measures the progress made toward the accreditation of specific methods for the NNR laboratory by SANAS.
Source/Collection of Data	<ul style="list-style-type: none"> • Laboratory quality manual. • Laboratory procedures. • Approved accreditation plan. • SANAS assessment reports • SANAS action plan
Method of Calculation	A calculated percentage of activities as per the plan i.e. $\frac{\text{Actual Performance}}{\text{Planned performance}}$ The formula is also applicable for calculation of the annual target.
Assumptions	<ul style="list-style-type: none"> • Availability of human and financial resources, including where relevant TSO or external consultants. • Availability of tools and equipment. • Availability of SANAS team. • No external factors such as COVID-19 or public events preventing access to the facilities for the assessments.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	SANAS Accreditation Report
Indicator Responsibility	Divisional Executive: RITS

Outcome	Ensure the readiness to regulate SMRs.
Indicator Title	% implementation of the approved SMR plan
Definition	Implementing the outcomes of the SMR benchmarking report.
Source/Collection of Data	<ul style="list-style-type: none"> • Benchmarking report • Approved implementation plan • Implementation progress reports • NNR's readiness report
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\textit{Actual Performance}}{\textit{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Availability of financial and human resources. • Cooperation from internal and external stakeholders. • No external disruptive activities or international pandemic effects
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	100% implementation of the approved SMR plan
Indicator Responsibility	Divisional Executive: RITS

Outcome	Ensure the long-term sustainability of the CNSS
Indicator Title	% of CNSS programme successfully implemented
Definition	Implementation of pilot plan for CNSS pillars for the first year.
Source/Collection of Data	<ul style="list-style-type: none"> • Approved strategy • Pilot plan and report
Method of Calculation	<p>A calculated percentage of activities as per the plan i.e.</p> $\frac{\text{Actual Performance}}{\text{Planned performance}}$ <p>The formula is also applicable for calculation of the annual target.</p>
Assumptions	<ul style="list-style-type: none"> • Availability of funds • Availability of staff • Participation of CNSS partners
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Desired Performance	CNSS Programme Evaluation Report
Indicator Responsibility	Divisional Executive: RITS

