



National
**Nuclear
Regulator**

Annual Performance Plan 2022-2023

TABLE OF CONTENTS

- List of Figures 3
- List of Tables 3
- Abbreviations 4
- Executive Authority Statement 6
- Accounting Officer Statement 7
- Official Sign-Off 8

- PART A: OUR MANDATE** 10
 - 1. Constitutional Mandate 11
 - 1.1. Legislative and Policy Mandate 11
 - 2. Institutional Policies and Strategies 13
 - 3. Relevant Court Rulings 14

- PART B: OUR STRATEGIC FOCUS** 16
 - 1. Updated Situational Analysis 16
 - 2. Scenario Planning 19
 - 2.1. Building scenarios 19
 - 2.2. Four scenarios 19
 - 3. Stakeholder Engagement 24
 - 3.1. Stakeholder Map 26

- PART C: MEASURING OUR PERFORMANCE** 30
 - 1. Overview of the NNR’s functions 30
 - 2. NNR Strategy Map 2022-23 33
 - 3. Institutional Performance Information 34
 - 3.1 Programme 1: Administration 34
 - 3.2 Programme 2: Nuclear Power Plant 44
 - 3.3 Programme 3: Nuclear Technology and Waste Projects and Naturally Occuring
Radioactive Material 50
 - 3.4. Programme 4: Regulatory Improvement and Technical Support 56
 - 4. Explanation of planned performance over the planning cycle 60
 - 5. Budget programme resource considerations 61
 - 6. Updated key risks and mitigations 62
 - 7. Public Entities 64
 - 8. Infrastructure Projects 65
 - 9. Public-Private Partnership 65

- PART D: TECHNICAL INDICATOR DESCRIPTION** 68

- ANNEXURE A: DETAILED RISK REGISTER** 84

LIST OF FIGURES

Figure 1: Overview guideline of the Framework	10
Figure 2: External Analysis Problem Tree	17
Figure 3: External Analysis Possible Solutions	17
Figure 4: Internal Analysis Problem Tree.....	18
Figure 5: Internal Analysis Possible Solution.....	18
Figure 6: Scenario planning 101.....	19
Figure 7: Overview of scenarios for the NNR (2021-2025)	19
Figure 8: NNR stakeholder map	26
Figure 9: NNR structure.....	27
Figure 10: Results-based concepts.....	32
Figure 11: Strategy map 2020-23	33

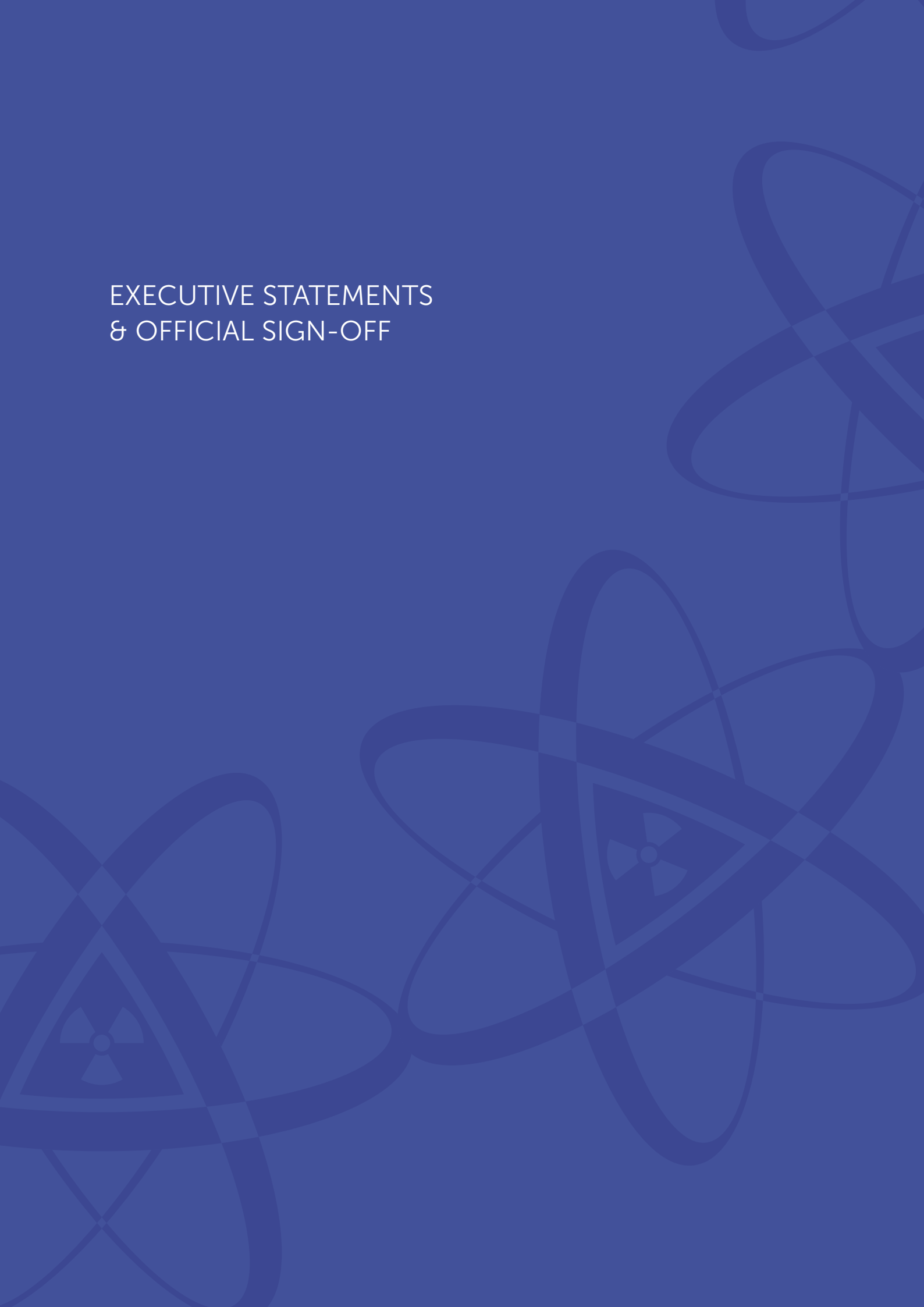
LIST OF TABLES

Table 1: Overview of relevant legislation regulating the NNR.....	12
Table 2: Equilibrium scenario.....	20
Table 3: Myriad of Challenges scenario.....	21
Table 4: Leap of Faith scenario	22
Table 5: Full Steam Ahead - Safely scenario.....	23
Table 6: NNR stakeholder engagement.....	25
Table 7: Overview of the NNR's functions	32
Table 8: Budget programme resource considerations	61
Table 9: Updated key risks and mitigations	64
Table 10: Public entities.....	64
Table 11: Infrastructure projects	65
Table 12: Public-Private Partnership	65

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

EXECUTIVE STATEMENTS
& OFFICIAL SIGN-OFF



EXECUTIVE AUTHORITY STATEMENT¹

The National Nuclear Regulator (NNR) is a regulatory body established in terms of section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999). During the 2021/2022 planning cycle, the NNR strived to perform its industry requirements diligently amidst the unprecedented worldwide pandemic.

Looking inward, the continued impact of COVID-19 did not deter the Regulator from achieving its set goals and targets including, amongst others, the much-anticipated Thyspunt Nuclear Installation Site License (NISL) public hearings, which took place during the month of August in 2021.

These public hearings were successfully conducted on the 25-26 August 2021. This was a huge milestone for the Regulator as the two sessions took place under the strict Disaster Management Act (Act No. 57 of 2002) and the outcomes and participation shown by stakeholders were never predictable.

During the planning period, the Koeberg replacement of the steam generator preparatory work for installation was performed. The process of replacing the steam generator remains of key interest for the Regulator even though previous key milestones were hampered by the 2020/21 nationwide lockdown.

Outward looking, the pending decision for the approval of a plan to procure 2 500MW by the Minister of Mineral Resources and Energy, Honourable Gwede Mantashe, of August 2020

remains of interest to the NNR, however, the resistance by civil society compels the Regulator to have further external stakeholder engagements to make the public more aware of the vital role of nuclear power in the country's clean energy technology and in the energy mix.

In light of the global trend in nuclear energy, our planning for 2022/2023 continues with keen interest in discussions around the use of Small Modular Reactors (SMRs). We deemed it crucial for the NNR to determine its readiness to regulate SMRs; as a result, the 2020/21 benchmarking report will serve as a key input in guiding the Regulator's practices and position in the regulation of SMRs.

The NNR Board of Directors and the Management would like to take this opportunity to express their gratitude to the Minister of Mineral Resources and Energy and the Department for their continued support for the Regulator's plans and operations. The NNR remains committed to its mandate to protect persons, property, and the environment against the harmful effects of radiation.

The NNR's Annual Performance Plan (APP) for the 2022/2023 financial year is hereby presented.

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 National Nuclear Regulator (NNR) is a regulatory body established in terms of section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999). The 2022/23 planning cycle continues taking place during the unprecedented COVID-19 pandemic. The pandemic has had a serious negative impact on livelihoods, societies in general as well as businesses continentally and globally.

Our 2021/22 plans involved a thorough, critical, and robust analysis of our environmental scan landscape. Our developed situational analysis, guided by our Board of Directors, propelled both the executive management and the commitment of our staff in ensuring and establishing causality and proper mapping out of our plans into actionable and measurable outputs. The use of scenarios brought forth a new perspective on our strategic landscape and remains a necessary tool to envision multiple possible alternative future guidance in our regulatory space.

Furthermore, the pandemic also brought forth opportunities and threats to our environment; the NNR had to make a shift in our working space by introducing the work-from-home initiative as a measure to protect our staff from being affected and infected with the virus—this was done in line with one of our key value “Caring”. Through these efforts the organisation was able to achieve 98% of its planned targets exceeding its set target of 85%.

However, issues of cyber security continue to be ranked as one of the biggest global threats, and as the Regulator, we continue to monitor and introduce new change management approaches in the form of an awareness programme to our staff as a mitigating strategy.

The Regulator is looking forward to the outcomes and way forward of the 2021/22 benchmarking report on the regulation of SMRs, the SANAS accreditation as well as the strengthening and enhancement of our stakeholder engagements and the enhancement of our ICT capabilities to enhance business support.

As always, we look ahead in anticipation of implementing our planned outcomes invariably aligned to the priorities of government as contained in the National Development Plan (NDP).

Dr Mzubanzi Bismark Tyobeka
Chief Executive Officer
National Nuclear Regulator

OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan:

- Was developed by the Board of Directors and Management of the National Nuclear Regulator;
- Considers all relevant policies, legislation and other mandates for which the National Nuclear Regulator is responsible; and
- It accurately reflects the impact and outcomes which the NNR will endeavour to achieve over the period 2022-2023.

Ms Nontsikelelo Kote

Manager: Strategy, and Organisational Performance

Date:

Mr Dakalo Netshivhazwaulu

Chief Financial Officer

Date:

Dr Mzubanzi Bismark Tyobeka

Chief Executive Officer

Date:

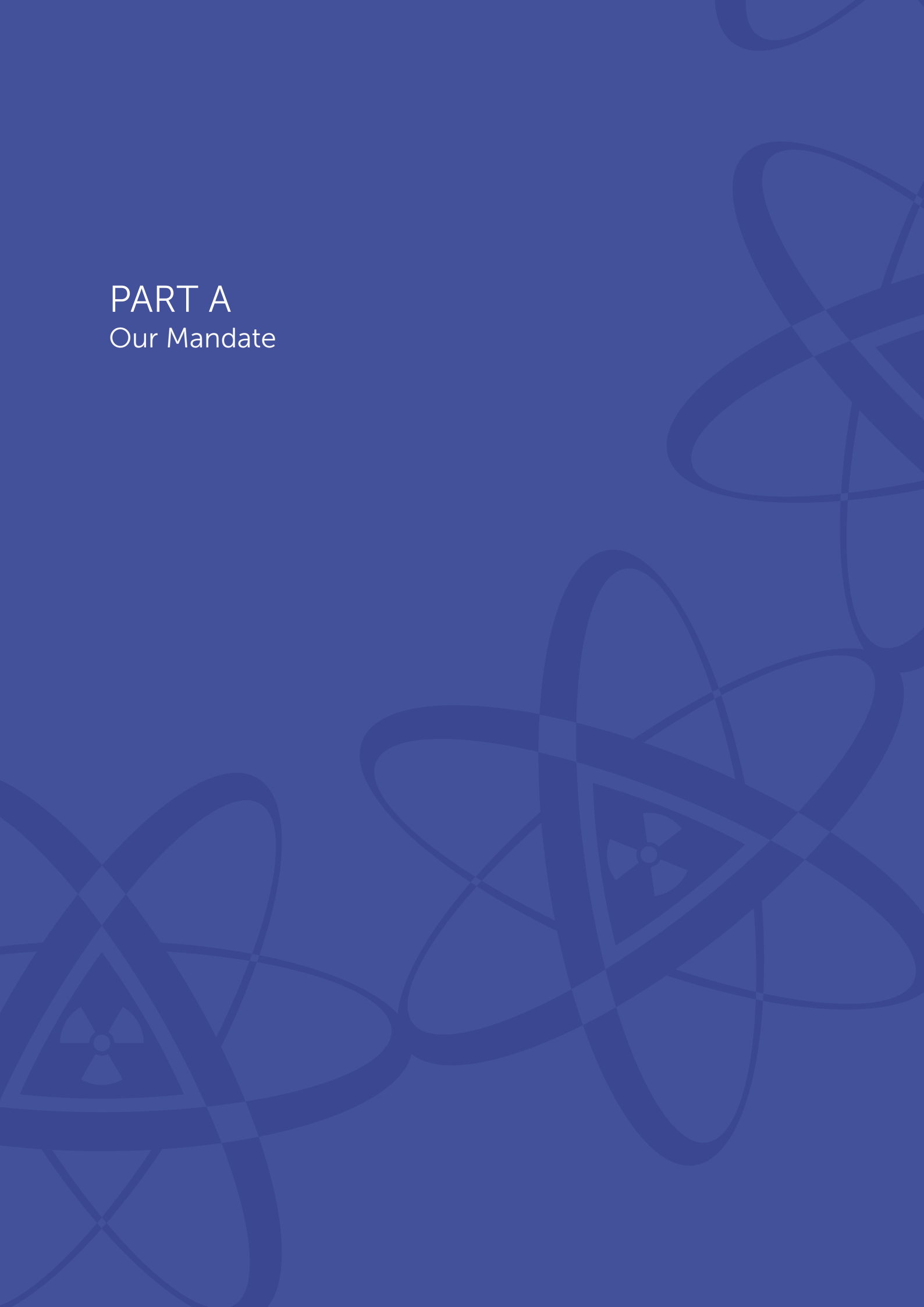
Approved by:

Dr Thapelo Motshudi

Chairperson of the Board

Date:

PART A
Our Mandate



PART A: OUR MANDATE

APPLICABILITY OF THE REVISED FRAMEWORK

As a Schedule 3A public entity, the NNR is subject to government guidelines and stipulations in so far as strategic and financial planning is concerned. This is important for two reasons.

Using the Revised Framework assists the NNR’s Annual Performance Plan to demonstrate alignment to the overall energy policy and the Department of Mineral Resources and Energy’s (DMRE) strategy in both format and content.

Secondly, the extent to which the guidelines have been applied is an auditable criterion by the Auditor-General of South Africa (AGSA) and thus the NNR must demonstrate adherence.

The NNR’s Annual Performance Plan is determined by the manifesto and term of office of the ruling party, and will be developed as guided by the framework (see Figure 1).

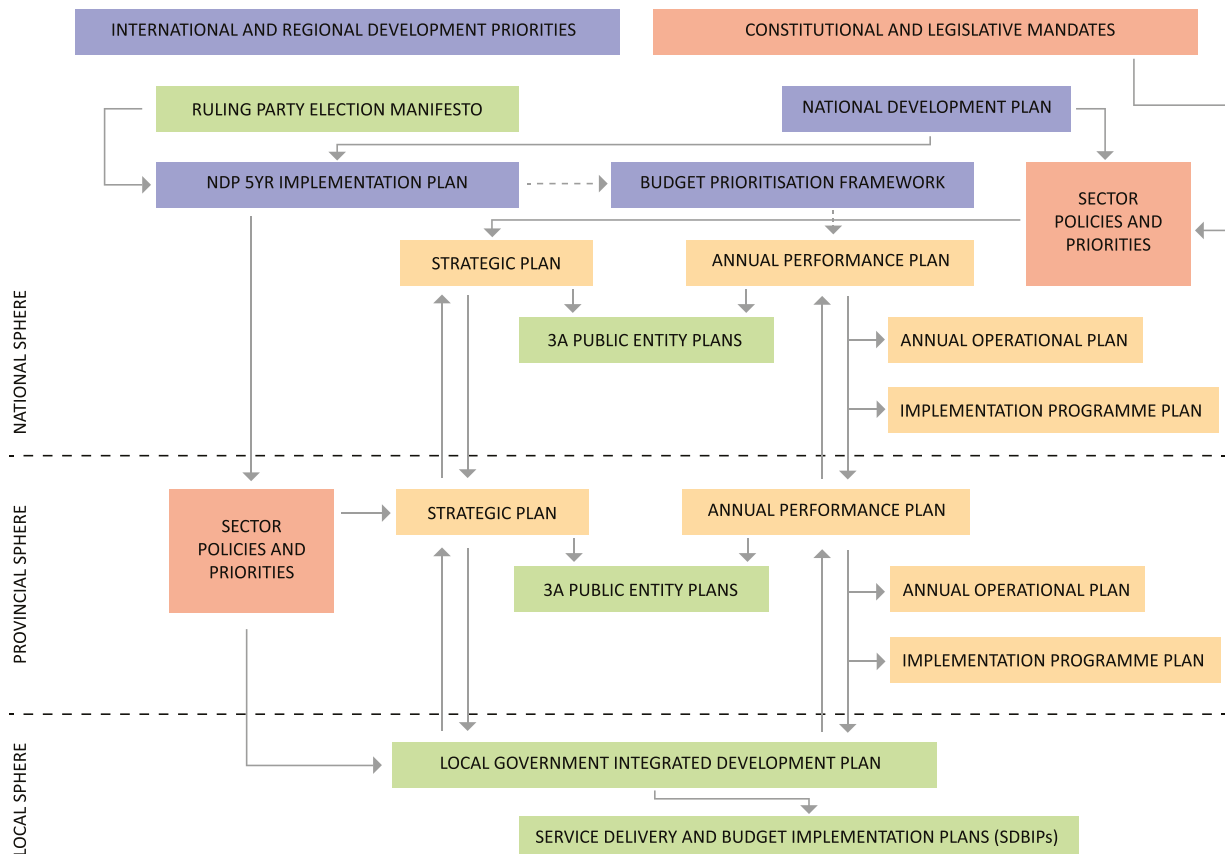


Figure 1: Overview guideline of the framework

The revised framework applies to:

- All national departments, provincial departments and government components listed in Schedule 1, Schedule 2 and Schedule 3 of the Public Service Act (Act No. 103 of 1994), as amended by the Public Service Amendment Act (Act No. 30 of 2007); and
- Constitutional institutions listed in Schedule 1 and public entities listed in Parts A and C of Schedule 3 of the Public Finance Management Act (Act No. 1 of 1999).

1. CONSTITUTIONAL MANDATE

The NNR is a public entity that 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. To this end, the NNR provides oversight and assurance that activities related to the 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 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, 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 well-being; 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; and
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

1.1. Legislative and Policy Mandate

The NNR's mandate is derived from section 3 of the NNR Act. The Act gives effect to the objects of the Regulator as stipulated in section 5.

The NNR also contributes to DMRE programme 6: Nuclear. These programmes include the following:

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

The following are some of the legislations that 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

2. INSTITUTIONAL POLICIES AND STRATEGIES²

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 of priority 6: 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 Preferential Procurement Policy Framework Act (Act No. 5 of 2000) (PPPFA).

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

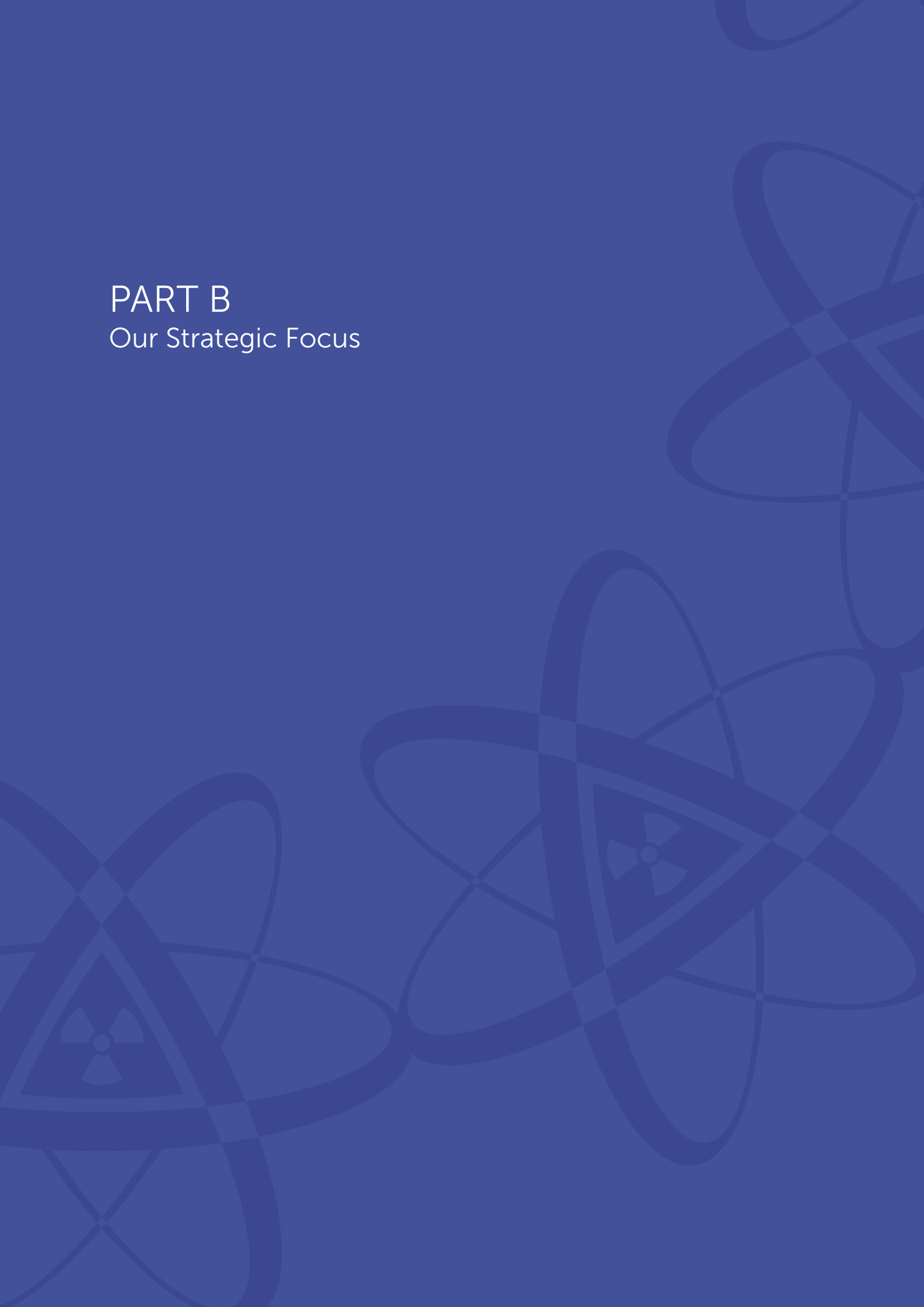
Link to NDP	Link to MTSF	Link to DMRE Priorities/ Outcomes
<p>Chapter 12: Building safer communities</p> <ul style="list-style-type: none"> • Safety and security also link to infrastructure and access to sustainable livelihoods. • Building safer communities is a holistic activity and involves many stakeholders. 	<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.
<p>All these are achieved through the mandate of the NNR.</p>		

² All planned outputs are linked with institutional policies and strategies to ensure achievement towards our intended mandate, impact, and outcomes.

3. RELEVANT COURT RULINGS

No new court rulings were identified in the current planning cycle. 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



PART B: OUR STRATEGIC FOCUS

1. UPDATED SITUATIONAL ANALYSIS

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.



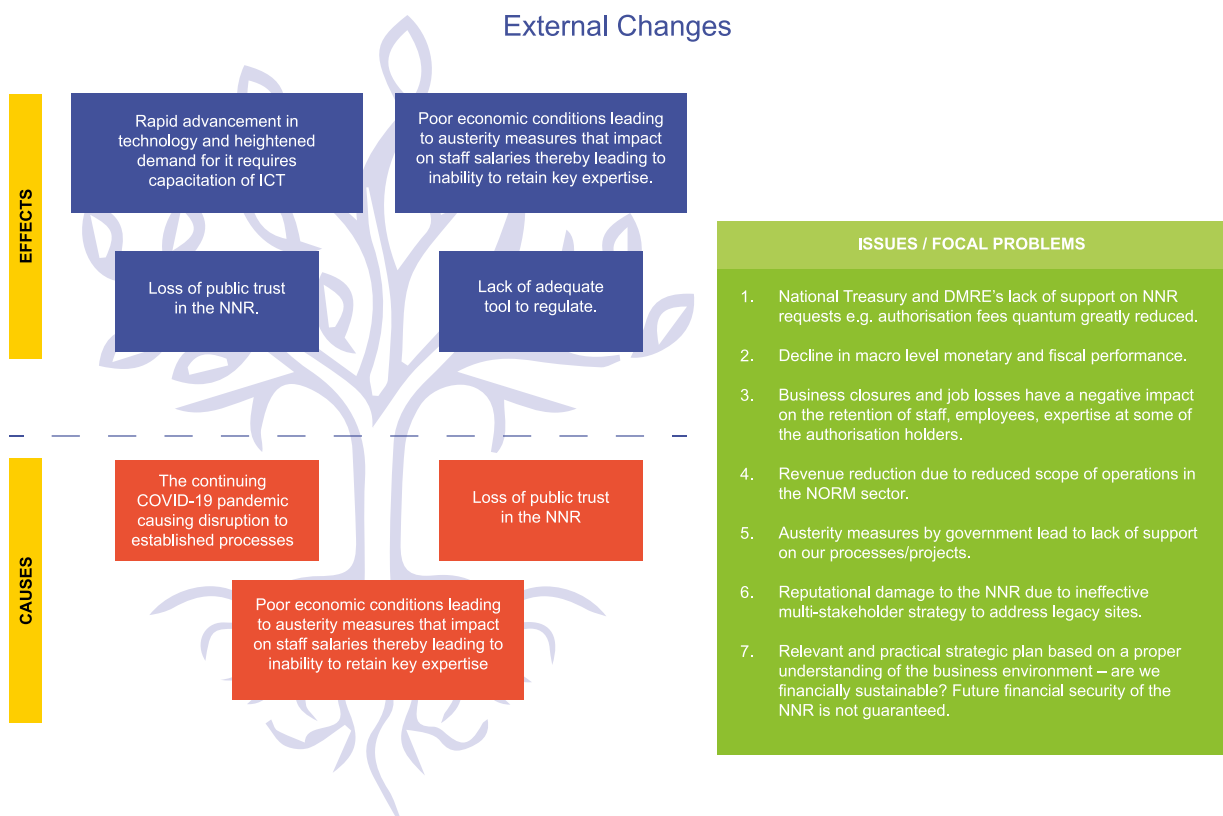


Figure 2: External Analysis Problem Tree

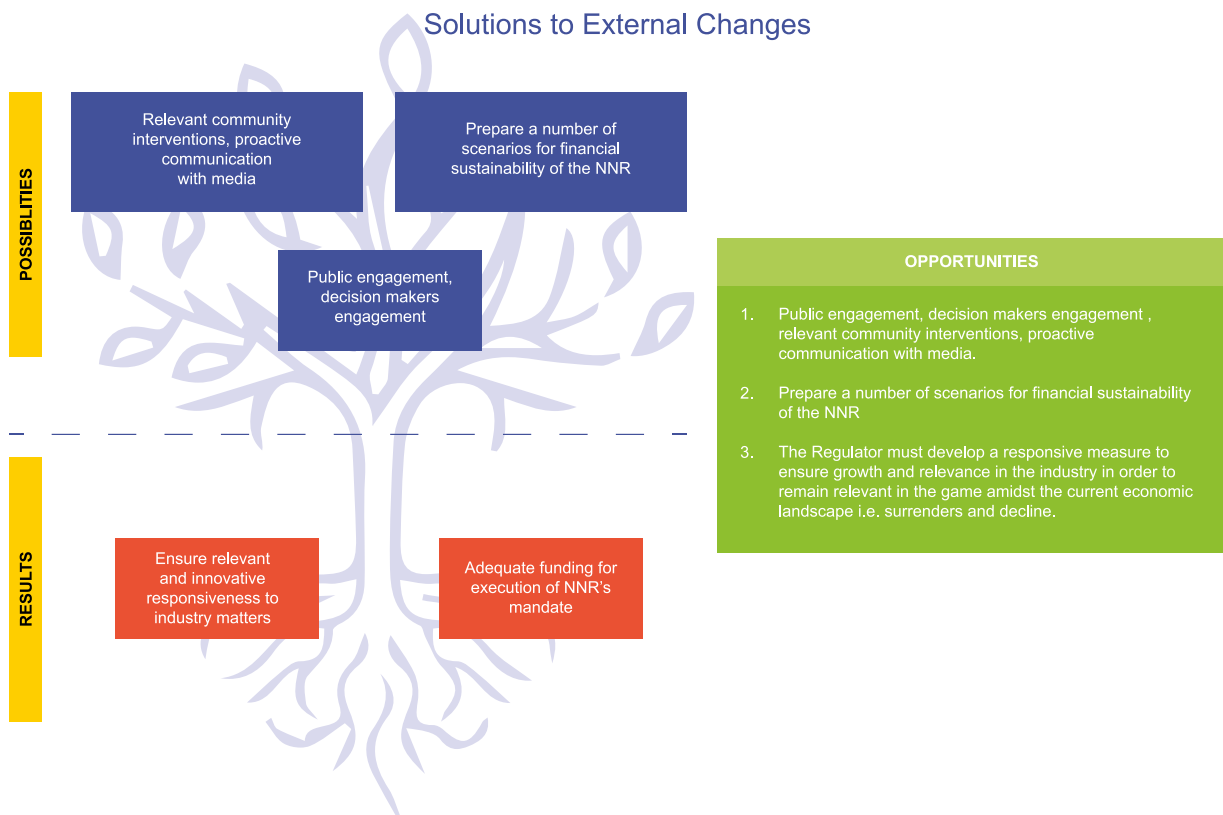


Figure 3: External Analysis Possible Solutions

Internal Challenges

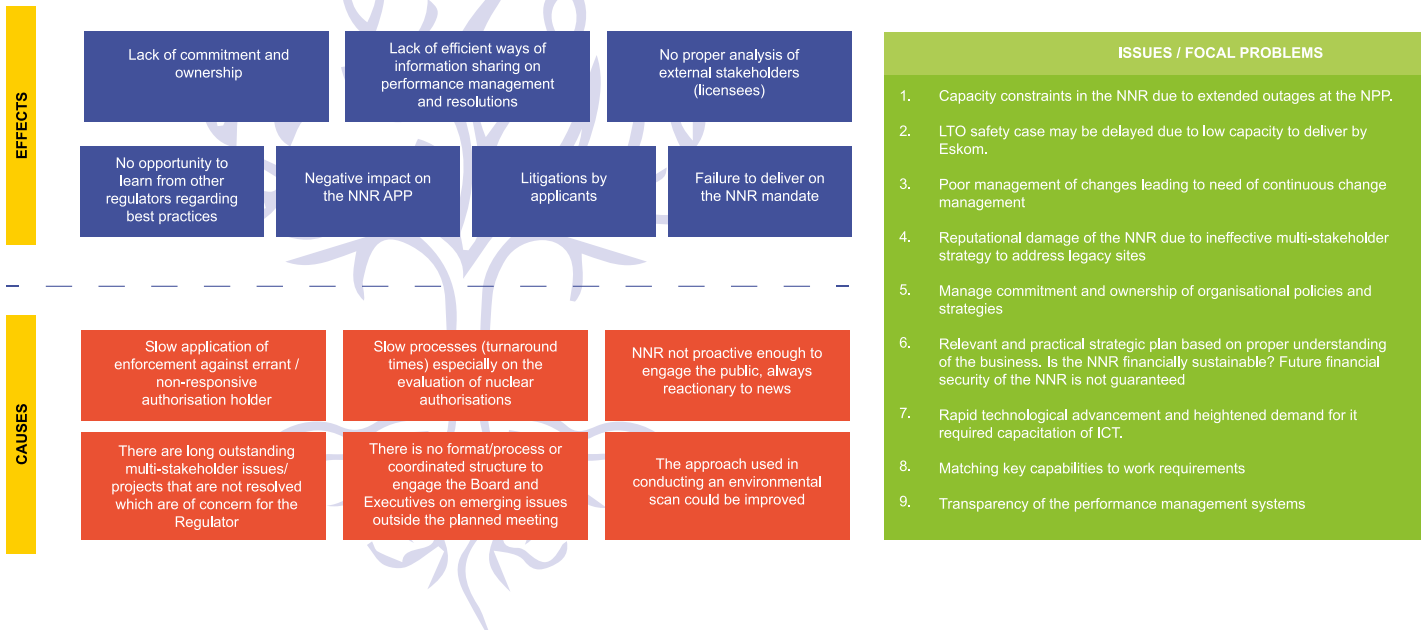


Figure 4: Internal Analysis Problem Tree

Solutions to Internal Challenges

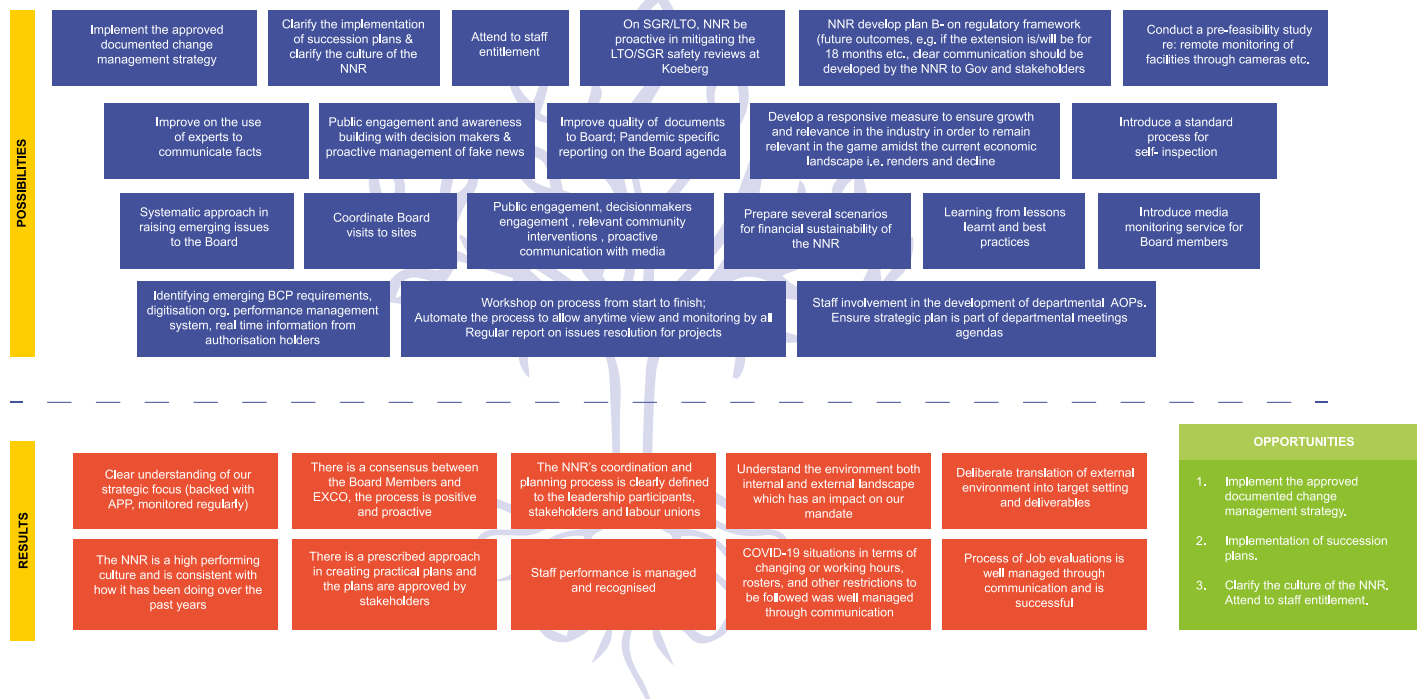


Figure 5: Internal Analysis Possible Solution

2. SCENARIO PLANNING

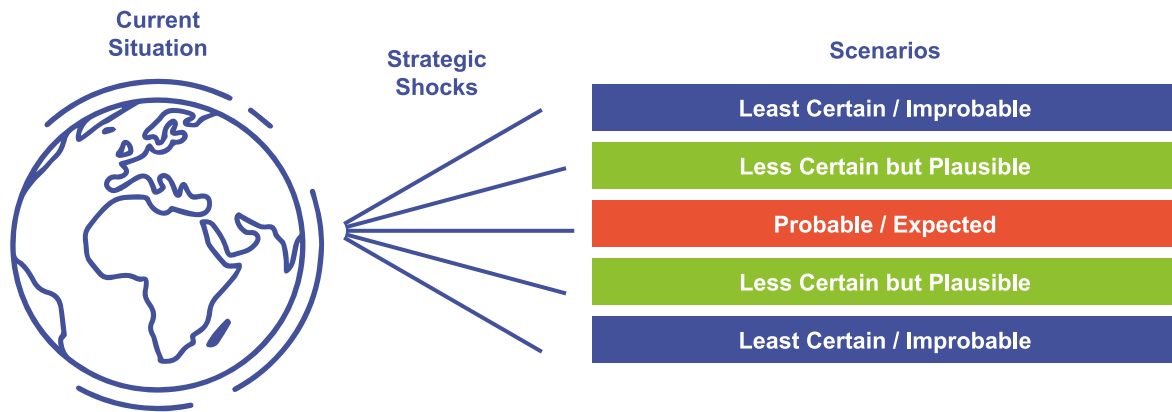


Figure 6: Scenario planning 101

2.1. 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 possible futures: The first being maintained 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 7 below.

2.2. 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.

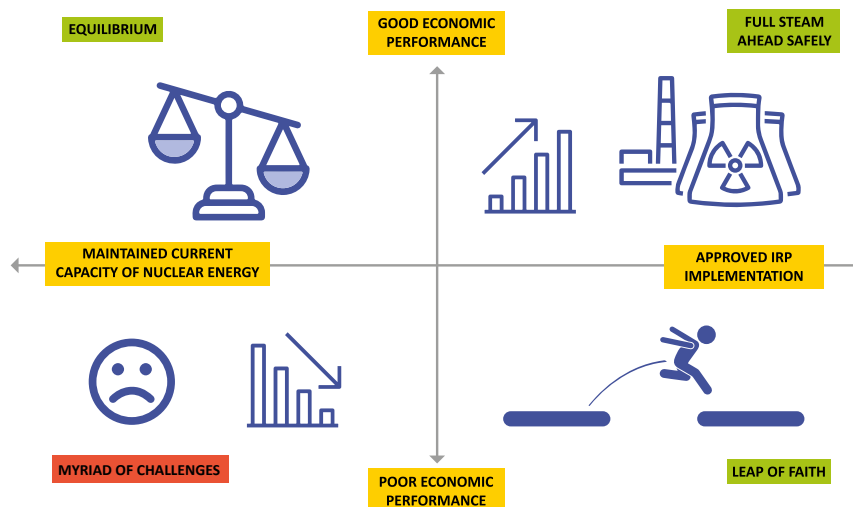


Figure 7: Overview of scenarios for the NNR (2021-2025)

2.2.1. Scenarios explained

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 2 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 2: 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 3 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 • Socioeconomic 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 4 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 5 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	–

Table 5: Full Steam Ahead - Safely 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.

3. STAKEHOLDER ENGAGEMENT

The NNR held a stakeholder engagement session during the current planning cycle. The aim of the session was to hear from authorisation holders what the Regulator should anticipate in the medium- to long-term in the regulated activities.

Table 6 below provides a summary of the stakeholders, their key characteristics, their impact and influence on the NNR, as well as how the Regulator should respond.

Stakeholder	Key Characteristics	Impact on the NNR	Influence on the NNR	NNR Response/ Strategy
Department of Mineral Resources and Energy	<ul style="list-style-type: none"> Individuals who have high a level of knowledge and involvement in the nuclear regulatory industry They are the decision makers and opinion leaders The Minister of Mineral Resources and Energy appoints Board members Individuals with a high level of knowledge and involvement in the mines the NNR works with as well as the nuclear regulatory industry 	<ul style="list-style-type: none"> Key strategic stakeholder If formal working relationships are not maintained, it will lead towards asymmetry of information The NNR is dependent on its co-operation and goodwill 	<ul style="list-style-type: none"> Has the ability to influence the NNR's independence 	<ul style="list-style-type: none"> Continuous engagement and involvement in ensuring nuclear safety Engagement regarding legacy sites Strengthen stakeholder relationship Continue having regular interactions, forums and meetings
Sibanye-Stillwater, Harmony Gold and other relevant mining houses	<ul style="list-style-type: none"> Provide value creation for all stakeholders through responsible mining and beneficiation of mineral resources 	<ul style="list-style-type: none"> Key strategic stakeholders Focus on employee safety and health in the mining sector 	<ul style="list-style-type: none"> The NNR is in a better position to provide for the protection of persons, property and the environment 	<ul style="list-style-type: none"> Continuous engagement and involvement

Stakeholder	Key Characteristics	Impact on the NNR	Influence on the NNR	NNR Response/ Strategy
Necsa	<ul style="list-style-type: none"> Provides value creation through the nuclear re-search reactor and production of nuclear products Focus on people, safety and sustainability 	<ul style="list-style-type: none"> Key strategic partner Government policy changes related to nuclear may impact on Necsa's future operations Strives for enhanced safety culture 	<ul style="list-style-type: none"> The NNR is in a better position to provide for the protection of persons, property and the environment 	<ul style="list-style-type: none"> Continue having regular interactions and strengthen co-operation
NRWDI	<ul style="list-style-type: none"> Provides management and disposal of radioactive waste Ensures the protection of persons, property and environment 	<ul style="list-style-type: none"> Institutionalises a culture of nuclear safety and security Vaalputs Nuclear Installation Licence (NIL) 	<ul style="list-style-type: none"> Provides the NNR with the ability to provide for the protection of persons, property and the environment 	<ul style="list-style-type: none"> Continue having regular interactions and strengthen co-operation
Eskom	<ul style="list-style-type: none"> Knowledgeable experts in nuclear power station operation Subject matter experts 	<ul style="list-style-type: none"> Eskom will take future direction on new build from the IRP The Nuclear Energy Policy of 2008 designates Eskom as the majority owner and operator of NPPs in South Africa 	<ul style="list-style-type: none"> Provides the NNR with the aim of ensuring the regulatory framework is enhanced for a new build programme Commitment is needed to regulate Long-Term Operation 	<ul style="list-style-type: none"> More engagement and collaboration, particularly on the safe operation of the Koeberg Nuclear Power Station (KNPS)

Table 6: NNR stakeholder engagement

3.1. Stakeholder Map

The strategy is more useful and effective when aligned with stakeholder needs. For that reason, the NNR has engaged in a stakeholder mapping exercise to define the types of linkages that the organisation has with various stakeholder groupings as per Figure 8 below.

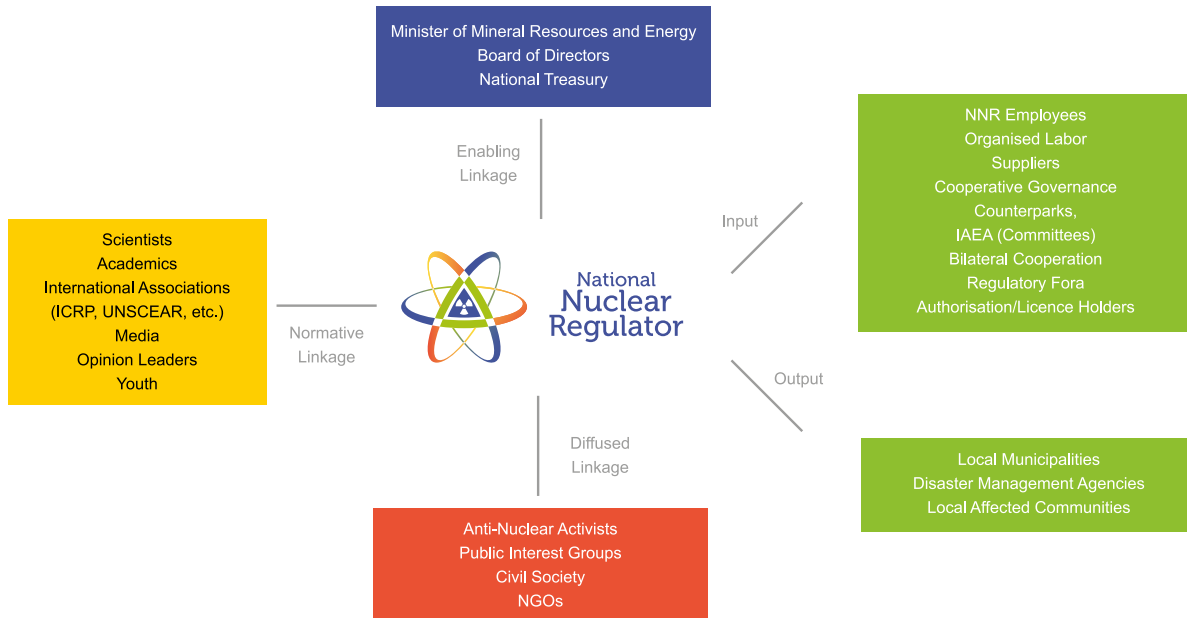


Figure 8: NNR stakeholder map

Enabling linkages are stakeholders who have some control and authority over the organisation and could include the Board of Directors, legislators and regulators, amongst others. The NNR is reliant on these stakeholders for decision making, guidance and the directives necessary for its operation.

Normative linkages are those groups with whom the organisation shares a common interest, and shares similar values, goals or problems. There is sharing and exchange of information, knowledge, practices, etc.

Diffused linkages are those stakeholders who become involved based on specific actions. They could include the community, activists and special interest groups. These interested parties may share a similar goal with the Regulator, such as safety, but may have different views regarding processes. The Regulator needs to share information with this group in line with the key driver of communicating regulatory processes and decisions.

Functional linkages are essential for the functioning of the organisation. Some stakeholders are involved in the input of the organisation, while others form part of the output of the organisation. Stakeholders that provide inputs to the Regulator include internal stakeholders, such as employees, as well as partners and suppliers. The stakeholders such as consumers and retailers provide various outputs for review, assessment and inspection by the Regulator. These stakeholders expect approval, guidance and regulations.

3.1.1. NNR structure

The NNR structure defines the major categorisation of roles in the organisation. The NNR is led by a Board of Directors in line with the prescripts of the NNR Act. The Board is appointed by the Minister of Mineral Resources and Energy, and is assisted and advised by three sub-committees, namely, the Transformation and Development Committee, the Audit and Risk Management Committee and the Technical Committee.

The Chief Executive Officer (CEO) is appointed by the Minister of Mineral Resources and Energy in line with the NNR Act. The CEO, in consultation with the Board, appoints the Executives. Currently, the NNR has five Executives from the following divisions: Finance, Nuclear Power Plant, (NPP), Nuclear Technology and NORM (NTN), Regulatory Improvement and Technical Services (RITS), and Corporate Support Services (CSS), which includes communications and stakeholder relations.

The strategic units are placed under the ambit of the CEO and/or the Board. The Internal Audit services the Board and reports to the Chairman of the Audit and Risk Management Committee (functionally) and the CEO (administratively). The Board Secretariat services the Board and reports to the Chairman of the Board, Legal Services, Risk Management, Compliance and Governance as well as Strategy, and Organisational Performance. Collectively, these units are referred to as the Office of the CEO.

The NNR staff complement is 175, this includes interns, temporary workers and inspectors in training. The approved structure of the NNR is depicted in Figure 9.

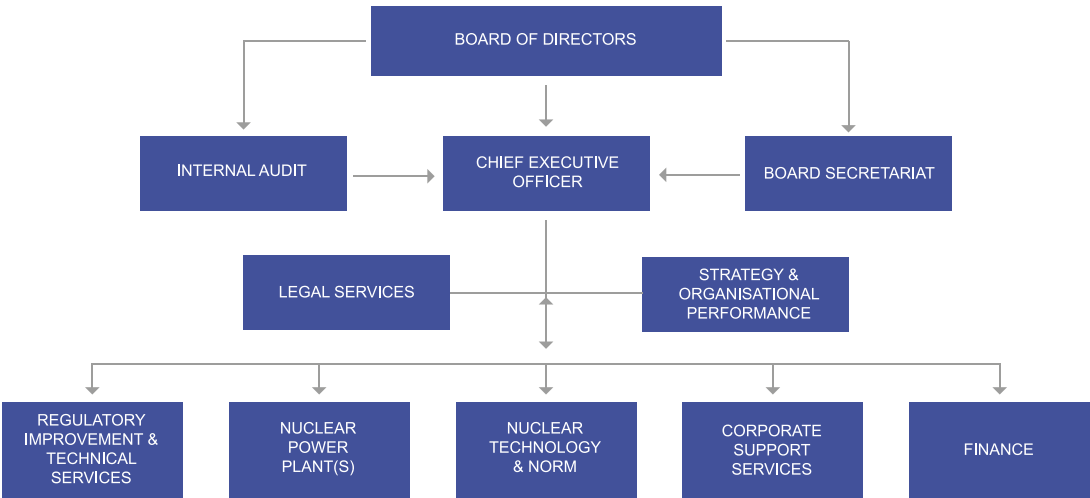
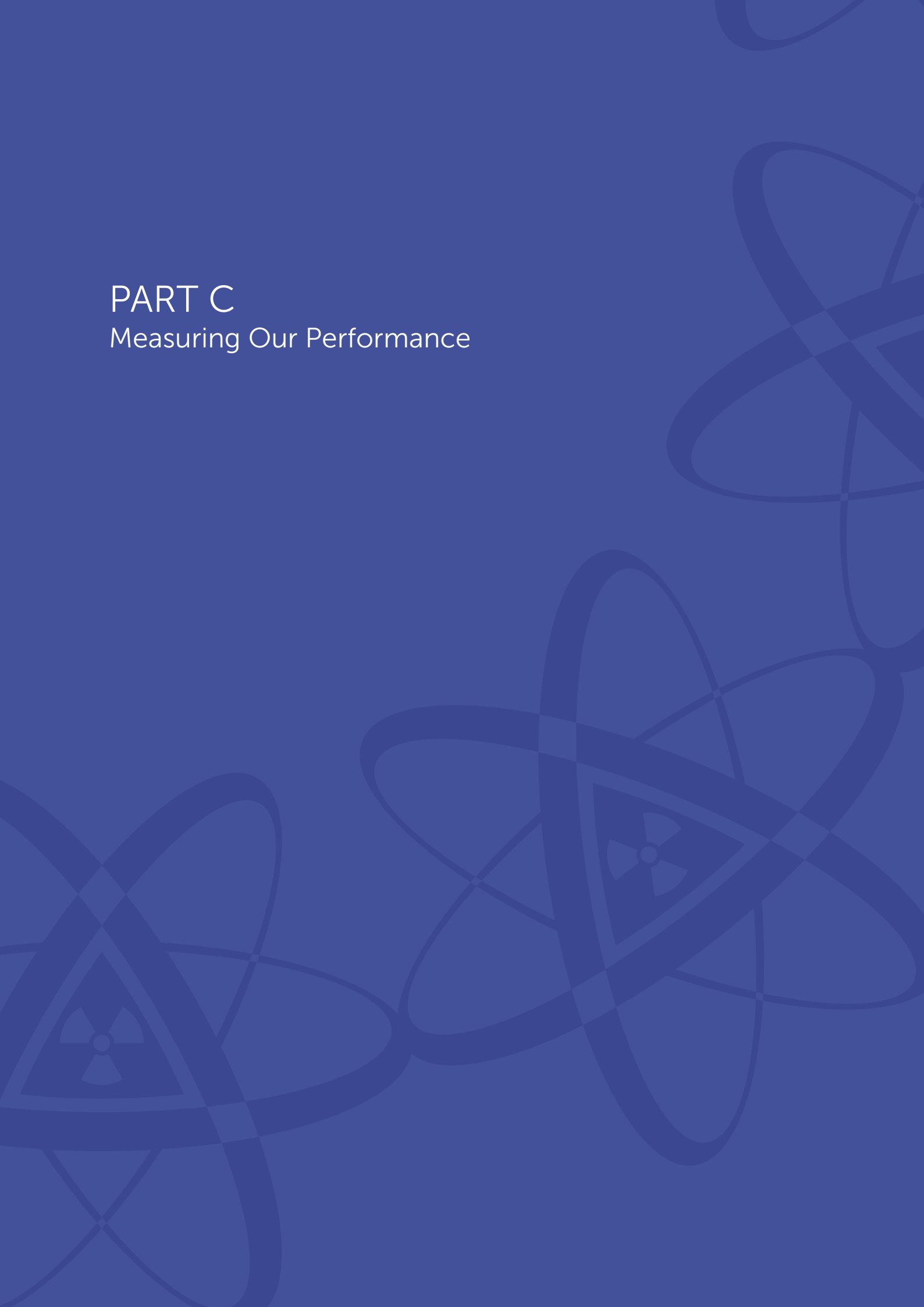


Figure 9: NNR structure

PART C
Measuring Our Performance



PART C: MEASURING OUR PERFORMANCE

1. OVERVIEW OF THE NNR'S FUNCTIONS

A broad overview of the NNR's functions is listed in Table 7.

Functions	Purpose
Board of Directors	<p>The Board sets the direction and governs the Regulator in accordance with the NNR Act.</p> <p>The Board develops the strategic plan and oversees the organisation's performance with regards to the stated strategic outcomes. It also oversees the risk-based Internal Audit.</p>
Office of the CEO	<p>As the face of the organisation, the Office of the CEO has overall responsibility for the organisation. The functions in this office include:</p> <ul style="list-style-type: none"> • Legal services, enterprise risk management and governance. • Strategy, and organisational performance, which is responsible for the implementation of the organisation's strategic plan and annual performance plan and oversees the performance of operations, including the development of organisational performance reporting, monitoring of strategic projects and maintaining order through governance; and • Internal Audit, which is responsible for conducting risk-based internal audits in all divisions/departments of the NNR.
Financial Management	<p>This programme provides organisational support in the area of financial management and administration. This is achieved through the following key functional streams:</p> <ul style="list-style-type: none"> • Financial planning and management; • Financial reporting; • Asset management and supply chain management (procurement); • Accounts payable; and • Accounts receivable and cash book management, and payroll management.
Regulation of Nuclear Power Plant (NPP)	<p>NPP focusses on a holistic approach towards regulating safety and security for nuclear power plant technology. In terms of its core functions it delivers the following:</p> <ul style="list-style-type: none"> • Compliance assurance and enforcement activities; and • Reviews and assessments and general oversight of the KNPS licence. • Additionally, the programme focusses on issuing of authorisations for Nuclear Vessel Licences (NVL), licence change requests, and management of NPP projects throughout the facility's life cycle.

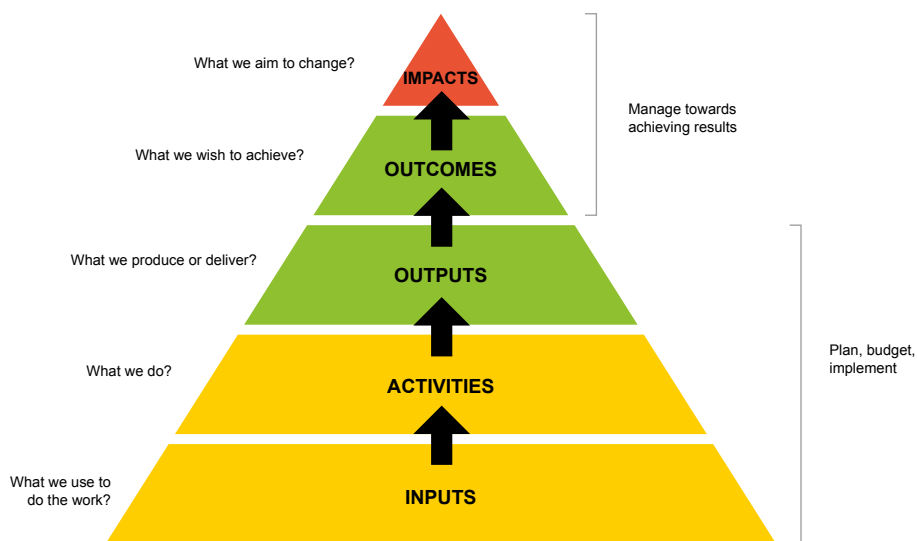
Functions	Purpose
<p>Regulation of Nuclear Technology and NORM (NTN)</p>	<p>NTN comprises two sub-programmes that focus on the following:</p> <ul style="list-style-type: none"> • The regulation of nuclear technology and waste projects, including various nuclear and radiation facilities on the Necsa Pelindaba site and the Vaalputs National Radioactive Waste Disposal Facility. • The regulation of facilities and activities involving NORM and public radiation exposure from previously contaminated NORM sites as well as radon. • Provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security. The programme focusses on the issuing of nuclear authorisations, including Nuclear Installation Licences (NIL), Nuclear Vessel Licences (NVL), Certificates of Registration (CoR) and Certificates of Exemption (CoE) and amendments thereto, as well as conducting reviews and assessments related to the safety of these facilities and activities; and • It delivers compliance assurance and enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to nuclear technology facilities and activities, radioactive waste management and all identified NORM facilities.
<p>Regulatory Improvement and Technical Services (RITS)</p>	<p>RITS provides cross-cutting nuclear safety services to all NNR technical departments. In terms of its core functions, RITS performs the following:</p> <ul style="list-style-type: none"> • In-depth nuclear safety reviews and assessments for all regulated facilities. • Independent verification by computer codes. • Emergency preparedness and response services. • Laboratory services. • Development of regulatory standards and nuclear projects; and • Coordination of nuclear security, and safety and security culture functions. • A key component of this programme is the regulatory research and development which is conducted on emerging issues regarding nuclear and radiation safety housed under the Centre for Nuclear Safety and Security (CNSS).

Functions	Purpose
Corporate Support Services	<p>This programme provides strategic organisational support through the key functions of:</p> <ul style="list-style-type: none"> • Human resource management; • Knowledge and information management; • Integrated management systems; • Facilities and security management; • Information and communications technology (ICT); • Occupational health and safety; and • Communication and stakeholder relations management.

Table 7: Overview of the NNR's functions

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 10, 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.



Source: Framework for Managing Programme Performance Information (2007)

Figure 10: Results-based concepts

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 Safer Communities. The impact statement of the NNR is as follows:

Impact Statement	A South Africa that is safe from nuclear and radiation damage and ensured safety towards persons, property, and the environment.
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2. NNR STRATEGY MAP 2022-23

The strategy map is based on the four perspectives of a balanced scorecard, and depicts 12 outcomes and 13 output indicators. The map places some key regulatory projects in perspective.

The map correctly depicts that the bulk of the NNR's programmes are on the regulatory perspective (see Figure 11).

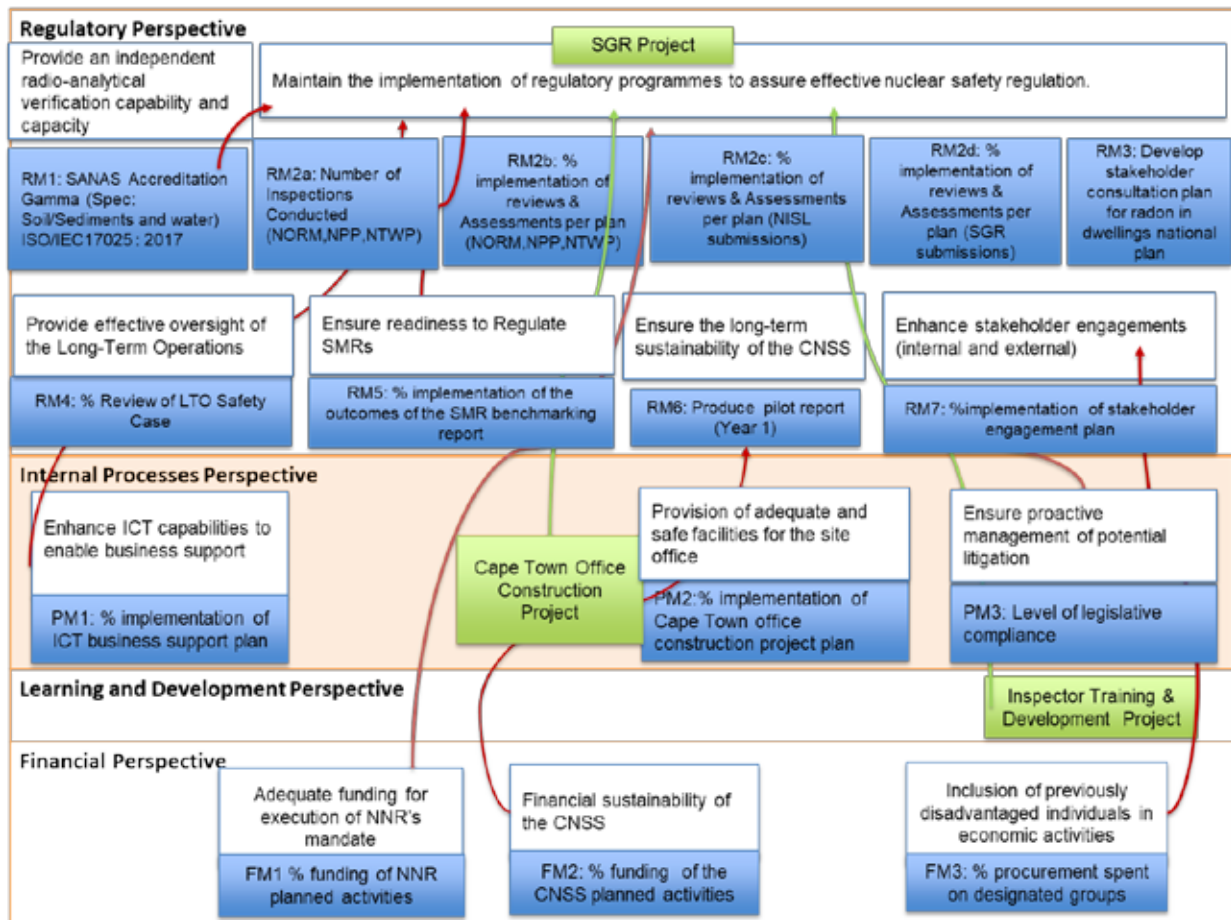


Figure 11: Strategy map 2022-23

3. INSTITUTIONAL PERFORMANCE INFORMATION

3.1. Programme 1: Administration

Purpose: The programme is comprised of the following sub-programmes: Legal Services; Enterprise Risk Management and the maintenance of order through Governance; the Internal Audit department, which is responsible for conducting risk-based internal audits in all divisions/departments of the NNR; as well as the Strategy, and Organisational Performance, which is responsible for coordinating and monitoring the implementation of the organisation’s strategic plan and annual performance plan and oversees the performance of operations, including the development of organisational performance reporting, monitoring of strategic projects.

3.1.1. Sub-programme 1: Legal, Risk and Compliance³

Purpose: The purpose of this sub-programme is to provide legal services, compliance and enterprise risk management and governance services to the organisation.

3.1.1.1. Outcome, Outputs and Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Annual Targets		
			Audited /Actual Performance		
			2018/19	2019/20	
Ensure proactive management of potential litigation	Quarterly legislative compliance report	PM3: Level of legislative compliance	N/A	N/A	

³ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution’s policies and strategies.

		Estimated Performance	MTEF Period		
	2020/21	2021/22	2022/23	2023/24	2024/25
	N/A	4 legislative compliance reports compiled	4 legislative compliance reports	100% compliance to legislation	100% compliance to legislation

3.1.1.2. Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	
PM3: Level of legislative compliance	100% compliance to legislation	

Q1	Q2	Q3	Q4
<ul style="list-style-type: none"> • Review and update NNR regulatory universe. • Review checklist of sections relevant to the NNR. • Identify/confirm relevant Act Owners and Workflow users. • Monitor compliance controls to ensure that they are adequate and effective. • Identify and track non-compliant issues to resolution. • Monitor implementation of corrective measures to address non-compliances. • Prepare quarterly report. 	<ul style="list-style-type: none"> • Monitor compliance controls to ensure that they are adequate and effective. • Identify and track non-compliant issues to resolution. • Monitor implementation of corrective measures to address non-compliances. • Prepare quarterly report. 	<ul style="list-style-type: none"> • Monitor compliance controls to ensure that they are adequate and effective. • Identify and track non-compliant issues to resolution. • Monitor implementation of corrective measures to address non-compliances. • Prepare quarterly report. 	<ul style="list-style-type: none"> • Monitor compliance controls to ensure that they are adequate and effective. • Monitor implementation of corrective measures to address non-compliances. • Identify and track non-compliant issues to resolution. • Conduct risk assessment of the legislative universe to assess legal and reputational risk. • Prepare quarterly report.

3.1.2. Sub-programme 2: Corporate Support Services⁴

Purpose: The purpose of this programme is to provide strategic organisational support through the key functions of Human Resource Management, Knowledge and Information Management, Integrated Management Systems, Facilities and Security Management, Information and Communications Technology (ICT), Occupational Health and Safety, and Communication and Stakeholder Relations Management.

3.1.2.1. Outcome, Outputs and Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Annual Targets			
			Audited /Actual Performance			
			2018/19	2019/20	2020/21	
Enhance stakeholder engagements (internal and external)	Approved stakeholder engagement plans Quarterly reports	RM7: % implementation of the stakeholder engagement plan	N/A	N/A	N/A	
Enhance ICT capabilities to enable business support	Approved plans ICT progress reports	PM1: % implementation of the ICT business support plan	N/A	N/A	N/A	

3.1.2.2. Output Indicator: Annual and Quarterly Targets

Output Indicator	Annual Target	
RM7: % implementation of the stakeholder engagement plan	100% implementation of the stakeholder engagement plan	
PM1: % implementation of the ICT business support plan	100% implementation of the ICT business support plan	

⁴ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	100% implementation of the stakeholder relationship management plan	100% implementation of the stakeholder relationship management plan	100% implementation of the stakeholder engagement plan (including the public participation plan)	100% implementation of the stakeholder engagement plan (including the public participation plan)
	100% implementation of all approved ICT strategic deliverables	100% implementation of the ISO:27001 plan	100% implementation of the ICT business support plan	100% implementation of the ICT business support plan

	Q1	Q2	Q3	Q4
	Approve the stakeholder engagement plan	100% implementation of quarterly planned activities	100% implementation of quarterly planned activities	100% implementation of quarterly planned activities
	Approve the ICT business support plan	100% implementation of quarterly planned activities	100% implementation of quarterly planned activities	100% implementation of quarterly planned activities

3.1.3. Sub-programme 3: Office of the Chief Financial Officer⁵

Purpose: The purpose of this programme is to provide organisational support in the area of financial management and administration. This is achieved through the following key functional streams: Financial Planning and Management, Financial Reporting, Asset Management and Supply Chain Management (Procurement), Accounts Payable, Accounts Receivable and Cash Book Management, and Payroll Management.

3.1.3.1. Outcome, Outputs and Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Annual Targets			
			Audited /Actual Performance			
			2018/19	2019/20	2020/21	
Adequate funding for execution of NNR's mandate	Board approved budget Quarterly financial reports	FM1: % funding of NNR planned activities	N/A	N/A	N/A	
Financial sustainability of the CNSS	CNSS revenue report	FM2: % funding of CNSS planned activities	N/A	N/A	Approved fee structure	
Inclusion of previously disadvantaged individuals in economic activities	Supply Chain Management (SCM) report on bids awarded to targeted groups	FM3: % procurement spent on designated groups	N/A	50% of procurement spent on designated groups	50% of procurement spent on designated groups	
Provision of adequate and safe facilities for the site office	Approved project plan Project reports	PM2: % implementation of the Cape Town Office construction project plan	N/A	N/A	N/A	

⁵ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	100% funding of NNR planned activities	100% funding of NNR planned activities	100% funding of NNR planned activities	100% funding of NNR planned activities
	Approved funding model of the CNSS	100% funding of CNSS planned activities	100% funding of CNSS planned activities	100% funding of CNSS planned activities
	70% of procurement spent on designated groups	70% of procurement spent on designated groups	70% of procurement spent on designated groups	70% of procurement spent on designated groups
	100% implementation of the Cape Town Office construction project plan for the year	100% implementation of Cape Town Office construction project plan	100% implementation of Cape Town Office construction project plan	100% implementation of Cape Town Office construction project plan

3.1.3.2. Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	
FM1: % funding of NNR planned activities	100% funding of NNR planned activities	
FM2: % funding of the CNSS planned activities	100% funding of CNSS planned activities	
FM3: % procurement spent on designated groups	70% procurement spent on designated groups	
PM2: % implementation of the Cape Town Office construction project plan	100% implementation of the Cape Town Office construction project plan	

3.1.4. Programme resource consideration⁶

PROGRAMME 1: ADMINISTRATION	2018/19	2019/20	2020/21	
Expenses	Audited Outcome	Audited Outcome	Audited Outcome	
Compensation of employees	52 008 520	61 460 140	59 346 252	
Salaries, wages and social contributions	52 008 520	61 460 140	59 346 252	
Goods and services	57 002 520	51 397 331	58 539 523	
Staff expenses	6 335 969	6 681 144	1 787 731	
Professional services	5 296 346	3 113 019	4 394 272	
Operating expenses	8 779 275	7 019 409	6 170 559	
Administrative expenses	14 832 397	15 240 602	17 566 987	
Other operating expenditure	21 758 533	19 343 157	28 619 974	
General/capital expenditure				
Total expenditure	109 011 040	112 857 471	117 885 775	

⁶ The consolidated budget is linked to Programme 1: Administration and its sub-programmes 1 (LRC), 2 (CSS) and 3 (F) on measure: PM1, PM2, PM3, FM1, FM2, FM3 and RM7. The budget outlines how the planned outputs will be achieved.

	Q1	Q2	Q3	Q4
	Billing of authorisation holders within 60 days from the beginning of the financial year	Compilation of medium-term expenditure framework	Compilation of authorisation fees increase proposal Compile the annual budget proposal	Submit budget for approval
	N/A	100% funding of CNSS planned activities	100% funding of CNSS planned activities	100% funding of CNSS planned activities
	N/A	70% procurement spent on designated groups	70% procurement spent on designated groups	70% procurement spent on designated groups
	N/A	100% implementation of the Cape Town Office construction project plan	100% implementation of the Cape Town Office construction project plan	100% implementation of the Cape Town Office construction project plan

Medium-Term Expenditure Framework				
	2021/22	2022/23	2023/24	2024/25
	Approved Budget	Revised Budget Estimate	Revised Budget Estimate	Planning Budget Estimate
	54 551 416	67 791 252	68 329 519	71 397 514
	54 551 416	67 791 252	68 329 519	71 397 514
	71 225 265	74 238 094	77 541 689	81 023 311
	6 365 071	6 634 313	6 929 540	7 240 677
	6 910 512	7 202 827	7 523 352	7 861 151
	10 031 530	10 455 864	10 921 150	11 411 510
	19 091 706	19 899 285	20 784 803	21 718 041
	15 812 025	16 480 874	17 214 272	17 987 193
	13 014 422	13 564 932	14 168 572	14 804 740
	125 776 682	142 029 346	145 871 208	152 420 826

3.2. Programme 2: Nuclear Power Plant⁷

Purpose: The purpose of this programme is to focus on a holistic approach towards regulating safety and security for nuclear power plant technology. In terms of its core functions, it delivers the compliance assurance and enforcement activities, reviews and assessments and general oversight of the KNPS licence. Additionally, the programme focusses on issuing of authorisations for Nuclear Vessel Licences (NVL), licence change requests, and management of NPP projects throughout the facility's life cycle.

3.2.1. Outcomes, Outputs, Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Audited /Actual Performance			
			2018/19	2019/20	2020/21	
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	<ul style="list-style-type: none"> • Inspection reports • Letters to authorisation holder or applicant informing them of inspection outcomes • Inventory of inspections conducted 	RM2a: number of inspections conducted (NPP)	100%	100%	100% implementation of the CAP	
	<ul style="list-style-type: none"> • Letter to authorisation holder or applicant informing them of review and assessment outcomes • Inventory of reviews and assessments undertaken • Quarterly plan for reviews and assessments 	RM2b: % implementation of the reviews and assessments plan (NPP)	100%	100%	100% implementation of reviews and assessments	

⁷ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

Annual Targets				
	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	29 NPP inspections conducted	29 NPP inspections conducted	35 NPP inspections conducted	41 NPP inspections conducted
	100% reviews and assessments undertaken	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan

Outcome	Outputs	Output Indicators	Audited /Actual Performance			
			2018/19	2019/20	2020/21	
				<ul style="list-style-type: none"> Letter to authorisation holder or applicant informing them of review and assessment outcomes Inventory of reviews and assessments undertaken Quarterly plan for reviews and assessments 	RM2c: % implementation of reviews and assessments (NISL)	N/A
	<ul style="list-style-type: none"> Letter to authorisation holder or applicant informing them of review and assessment outcomes Inventory of reviews and assessments undertaken Quarterly plan for reviews and assessments 	RM2d: % implementation of reviews and assessments (SGR)	N/A	N/A	N/A	
Provide an effective oversight of the Long-Term Operations	Safety evaluation progress report	RM4: % review of LTO safety case	N/A	N/A	Approved resource plan for LTO	

Annual Targets				
	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	N/A	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	N/A	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	100% implementation of the LTO training plan	Safety evaluation progress report	Draft safety evaluation report	Final safety evaluation report

3.2.2. Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	
RM2a: number of inspections conducted (NPP)	29 inspections conducted	
RM2b: % implementation of the reviews and assessments plan (NPP)	100% implementation of the reviews and assessments plan	
RM2c: % implementation of the reviews and assessments plan (NISL)	100% implementation of the reviews and assessments plan	
RM2d: % implementation of the reviews and assessments plan (SGR)	100% implementation of the reviews and assessments plan	
RM4: % review of the LTO safety case	Safety evaluation progress report	

3.2.3. Programme Resource Consideration⁸

PROGRAMME 2: NUCLEAR POWER PLANT	2018/19	2019/20	2020/21	
Expenses	Audited Outcome	Audited Outcome	Audited Outcome	
Compensation of employees	34 787 840	30 367 736	28 773 876	
Salaries wages and social contributions	34 787 840	30 367 736	28 773 876	
Goods and services	19 316 866	17 304 998	16 861 520	
Staff expenses	3 452 594	2 462 417	237 673	
Professional services	14 208 885	13 989 313	15 949 092	
Operating expenses	362 107	69 776	-	
Administrative expenses	1 293 280	783 492	674 755	
Other operating expenditure	-	-		
General/capital expenditure				
Total expenditure	54 104 706	47 672 734	45 635 396	

⁸ The consolidated budget is linked to Programme 2: Nuclear Power Plant on measure RM2a, RM2b, RM2c, RM2d and RM4. The budget outlines how the planned outputs will be achieved.

	Q1	Q2	Q3	Q4
	Conduct 6 NPP inspections	Conduct 9 NPP inspections	Conduct 9 NPP inspections	Conduct 5 NPP inspections
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	N/A	N/A	N/A	Safety evaluation progress report

	Medium-Term Expenditure Framework			
	2021/22	2022/23	2023/24	2024/25
	Approved Budget	Revised Budget Estimate	Revised Budget Estimate	Planning Budget Estimate
	29 339 121	36 161 655	37 770 849	39 466 760
	29 339 121	36 161 655	37 770 849	39 466 760
	28 692 720	29 906 422	31 237 258	32 639 811
	3 157 720	3 291 292	3 437 754	3 592 109
	23 600 000	24 598 280	25 692 903	26 846 515
	360 000	375 228	391 926	409 523
	1 526 000	1 590 550	1 661 329	1 735 923
	-	-	-	-
	49 000	51 073	53 345	55 741
	58 031 841	66 068 077	69 008 106	72 106 571

3.3. Programme 3: Nuclear Technology and Waste Projects and Naturally Occurring Radioactive Material⁹

Purpose: The programme comprises of two sub-programmes that focus on the regulation of nuclear technology and waste projects, including various nuclear and radiation facilities on the Necsa Pelindaba site and the Vaalputs National Radioactive Waste Disposal Facility; and the regulation of facilities and activities involving NORM and public radiation exposure from previously contaminated NORM sites as well as radon. NTN provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security. The programme focusses on the issuing of nuclear authorisations, including Nuclear Installation Licences (NIL), Nuclear Vessel Licences (NVL), Certificates of Registration (CoR) and Certificates of Exemption (CoE) and amendments thereto, as well as conducting reviews and assessments related to the safety of these facilities and activities. Furthermore, it delivers compliance assurance and enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to nuclear technology facilities and activities, radioactive waste management and all identified NORM facilities.

3.3.1. Outcome, Outputs and Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Audited /Actual Performance			
			2018/19	2019/20	2020/21	
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	<ul style="list-style-type: none"> • Inspection reports • Letters to authorisation holder or applicant informing them of inspection outcomes • Inventory of inspections conducted 	RM2a: number of inspections conducted (NORM)	100%	100%	120 NORM inspections conducted	
	<ul style="list-style-type: none"> • Inspection reports • Letters to authorisation holder or applicant informing them of inspection outcomes • Inventory of inspections conducted 	RM2a: number of inspections conducted (NTWP)	100%	100%	50 NTWP inspections conducted	

⁹ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

Annual Targets				
	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	120 NORM inspections conducted	120 NORM inspections conducted	120 NORM inspections conducted	120 NORM inspections conducted
	50 NTWP inspections conducted	85 NTWP inspections conducted	90 NTWP inspections conducted	90 NTWP inspections conducted

Outcome	Outputs	Output Indicators	Audited /Actual Performance			
			2018/19	2019/20	2020/21	
	<ul style="list-style-type: none"> Letter to authorisation holder or applicant informing them of review and assessment outcomes Inventory of reviews and assessments undertaken Quarterly plan for reviews and assessments 	RM2b: % implementation of the reviews and assessments plan (NORM)	100%	100%	100% reviews and assessments undertaken	
	<ul style="list-style-type: none"> Letter to authorisation holder or applicant informing them of review and assessment outcomes Inventory of reviews and assessments undertaken Quarterly plan for reviews and assessments 	RM2b: % implementation of the reviews and assessments plan (NTWP)	100%	100%	100% reviews and assessments undertaken	
	<ul style="list-style-type: none"> Approved Stakeholder Consultation Plan 	RM3: Develop stakeholder consultation plan for radon in dwellings national plan	N/A	Draft radon action plan	Benchmark report	

Annual Targets				
	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	100% implementation of reviews and assessments	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	Approved indoor radon regulatory framework	Approved Stakeholder Consultation Plan	Consultations as per plan	Final national regulatory framework

3.3.2. Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	
RM2a: number of inspections conducted (NORM)	120 inspections conducted	
RM2a: number of inspections conducted (NTWP)	85 inspections conducted	
RM2b: % implementation of the reviews and assessments plan (NORM)	100% implementation of the reviews and assessments plan	
RM2b: % implementation of the reviews and assessments plan (NTWP)	100% implementation of the reviews and assessments plan	
RM3: Develop stakeholder consultation plan for radon in dwellings national plan	Approved Stakeholder Consultation Plan	

3.3.2. Programme resource considerations¹⁰

PROGRAMME 3: NUCLEAR TECHNOLOGY AND WASTE PROJECTS				
NATURALLY OCCURRING RADIOACTIVE MATERIALS	2018/19	2019/20	2020/21	
Expenses	Audited Outcome	Audited Outcome	Audited Outcome	
Compensation of employees	33 206 287	39 280 785	40 905 161	
Salaries wages and social contributions	33 206 287	39 280 785	40 905 161	
Goods and services	3 243 391	3 514 607	1 249 455	
Staff expenses	2 212 158	2 707 672	1 102 606	
Professional services	624 035	498 083	-	
Operating expenses	330 927	191 438	75 331	
Administrative expenses	76 271	117 414	71 518	
Other operating expenditure	-	-	-	
General/capital expenditure				
Total expenditure	36 449 678	42 795 392	42 154 616	

¹⁰ The consolidated budget is linked to Programme 3: Nuclear Technology & Norm and its Sub-programmes 1 (NORM) and 2 (NTWP) on measure RM2a, RM2b, and RM3. The budget outlines how the planned outputs will be achieved.

	Q1	Q2	Q3	Q4
	Conduct 35 NORM inspections	Conduct 35 NORM inspections	Conduct 25 NORM inspections	Conduct 25 NORM inspections
	Conduct 25 NTWP inspections	Conduct 30 NTWP inspections	Conduct 16 NTWP inspections	Conduct 14 NTWP inspections
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
	N/A	N/A	N/A	Approve Stakeholder Consultation Plan

Medium-Term Expenditure Framework				
	2021/22	2022/23	2023/24	2024/25
	Approved Budget	Revised Budget Estimate	Revised Budget Estimate	Planning Budget Estimate
	48 470 864,74	55 475 532	57 944 194	60 545 888
	48 470 865	55 475 532	57 944 194	60 545 888
	3 144 500	3 277 512	3 423 362	3 577 071
	2 407 500	2 509 337	2 621 003	2 738 686
	250 000	260 575	272 171	284 391
	230 000	239 729	250 397	261 640
	110 000	114 653	119 755	125 132
	-	-	-	-
	147 000	153 218	160 036	167 222
	51 615 365	58 753 045	61 367 555	64 122 958

3.4. Programme 4: Regulatory Improvement and Technical Support¹¹

The purpose of this programme is to provide cross-cutting nuclear safety services to all NNR technical departments. In terms of its core functions, Regulatory Improvement and Technical Support (RITS) performs in-depth nuclear safety reviews and assessments for all regulated facilities independent verification by computer codes, emergency preparedness and response services, laboratory services, development of regulatory standards and nuclear projects, and coordination of nuclear security, and safety and security culture function. CNSS is the flagship of the programme with the aim to develop capabilities in order to improve regulatory practices related to nuclear safety and security. This is achieved through targeted Regulatory Research and Development (RRD), Education and Training (E&T) and Technical and Scientific Support (TSS). In order to maximise resources, CNSS collaborates with international and local academic and research institutions, as well as technical and scientific organisations (TSOs) in order to execute any activities falling within the mandate of the NNR

3.4.1. Outcomes, Outputs, Performance Indicators and Targets

Outcome	Outputs	Output Indicators	Annual Targets			
			Audited /Actual Performance			
			2018/19	2019/20	2020/21	
Provide an independent radio- analytical verification capability and capacity	SANAS Accreditation Report SANAS action plan and progress reports	RM1: SANAS Accreditation Gamma Spec: (Soil/ Sediment and Water) ISO/IEC 17025:2017	N/A	SANAS Assessment report outstanding	Submitted SANSA application form	
Ensure readiness to regulate SMRs	NNR readiness report	RM5: % implementation of the SMR plan	N/A	N/A	N/A	
Ensure the long-term sustainability of the CNSS	Approved CNSS Pilot Report	RM6: Produce pilot report	N/A	N/A	Approved CNSS Sustainability Plan	

¹¹ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

	Estimated Performance	MTEF Period		
	2021/22	2022/23	2023/24	2024/25
	SANAS Accreditation report	SANAS Accreditation Report Gamma Spec: (Soil/Sediment) ISO/IEC 17025:2017	Re-validation of Uranium Method Re-validation of Radium and Thorium Method Verification of Polonium Method in water	Alpha Spectrometry: Uranium, Radium and Thorium in water) SANAS application Polonium Method validation in water by Alpha Spectrometry
	Benchmarking report on SMRs regulation	NNR readiness report on SMRs regulation with plan of action	Approved SMR annual implementation plan Implementation progress report as per plan	Approved SMR annual implementation plan Implementation progress report as per plan
	Approved sustainability strategy	Approved CNSS Pilot Report (Year 1)	Approved CNSS Pilot Report (Year 2)	CNSS Programme Evaluation Report

3.4.2. Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	
RM1: SANAS Accreditation Gamma Spec: (Soil/Sediment and Water) ISO/IEC 17025:2017	SANAS Accreditation Report	
RM5: % implementation of the SMR readiness plan	NNR readiness report on SMRs regulation with plan of action	
RM6: Produce pilot report (Year 1)	Approved CNSS Pilot Report	

3.4.3. Programme Resource Consideration¹²

PROGRAMME 4: REGULATORY IMPROVEMENT AND TECHNICAL SERVICES	2018/19	2019/20	2020/21	
Expenses	Audited Outcome	Audited Outcome	Audited Outcome	
Compensation of employees	30 364 649	38 519 761	44 473 729	
Salaries wages and social contributions	30 364 649	38 519 761	44 473 729	
Goods and services	13 846 128	11 984 535	6 296 551	
Staff expenses	2 368 385	2 351 480	1 235 082	
Professional services	1 772 283	1 092 178	636 767	
Operating expenses	7 860 714	7 484 332	3 683 230	
Administrative expenses	1 844 746	1 056 545	741 472	
Other operating expenditure	-	-	-	
General/capital expenditure				
Total expenditure	44 210 777	50 504 296	50 770 280	

¹² The consolidated budget is linked to Programme4: Regulatory Improvement & Technical Services and its Sub-programmes 1 (CNSS) on measure RM1, RM5 and RM6. The budget outlines how the planned outputs will be achieved.

	Q1	Q2	Q3	Q4
	Approve accreditation plan	100% implementation of the accreditation plan quarterly activities Approved SANAS action plan 100% implementation of the SANAS action plan quarterly activities	100% implementation of the accreditation plan quarterly activities 100% implementation of the SANAS action plan quarterly activities	100% implementation of the accreditation plan quarterly activities 100% implementation of the SANAS action plan quarterly activities Engagement with SANAS on the Assessment of Gamma Spectrometry
	N/A	Approved SMR annual implementation plan	100% implementation of quarterly activities	100% implementation of quarterly activities
	Prepare pilot plan for Year 1	Conduct pilot study for each of the pillars of the CNSS (Education and Training, Technical Support Services and Research)	N/A	Compile Pilot Report

Medium-Term Expenditure Framework				
	2021/22	2022/23	2023/24	2024/25
	Approved Budget	Revised Budget Estimate	Revised Budget Estimate	Planning Budget Estimate
	52 993 504	61 996 140	64 754 968	67 662 466
	52 993 504	61 996 140	64 754 968	67 662 466
	18 655 274	19 444 391	20 309 667	21 221 572
	2 929 798	3 053 728	3 189 619	3 332 833
	2 734 125	2 849 778	2 976 594	3 110 243
	8 677 809	9 044 880	9 447 377	9 871 565
	2 715 842	2 830 722	2 956 689	3 089 445
	50 000	52 115	54 434	56 878
	1 547 700	1 613 168	1 684 954	1 760 608
	71 648 778	81 440 531	85 064 635	88 884 038

4. EXPLANATION OF PLANNED PERFORMANCE OVER THE PLANNING CYCLE¹³

All planned outcomes, outputs and performance indicators are achieved in line with the institution's policies and strategies. The planned performance is planned and linked in accordance with the NDP, the MTSF priorities, particularly towards ensuring social cohesion and safer communities, the DMRE priorities as well as women, youth and people with disabilities.

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 in achieving the intended impact. 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; and
- Inclusion of previously disadvantaged individuals in economic activities.

¹³ Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies

5. BUDGET PROGRAMME RESOURCE CONSIDERATIONS

Statement of financial performance	Budget	Audited outcome	Budget	Audited outcome	Budget	Audited outcome	Budget	Audited outcome	Out-come/ Budget Average %	Average growth rate (%)	Expen-diture/ total: Average (%)	Medium-term estimate			Average growth rate (%)	Expen-diture/ total: Average (%)
	R thousand	2018/19	2019/20	2020/21	2021/22	2018/19-2021/22	2022/23	2023/24	2024/25	2021/22-2024/25						
Revenue																
Tax revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-tax revenue	211 952	214 320	223 660	227 775	244 932	240 886	238 760	260 983	102,7%	6,8%	-	300 983	314 362	328 476	8,0%	86,4%
Sale of goods and services other than capital assets	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
Sales of goods and services produced by entity	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
of which:																
Administrative fees	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
Sales by market establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales of scrap, waste, arms and other used current goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other non-tax revenue	31 613	30 673	23 734	31 335	32 118	28 172	27 876	50 099	121,6%	17,8%	12,8%	50 889	53 138	55 524	3,5%	15,1%
Transfers received	16 510	16 510	43 096	43 096	40 467	40 467	46 089	46 089	100,0%	40,8%	13,1%	47 308	46 949	49 057	2,1%	13,6%
Total revenue	228 462	230 830	266 756	270 871	285 399	281 353	284 849	307 072	102,3%	10,0%	-	348 291	361 311	377 533	7,1%	100,0%
Expenses																
Current expenses	228 462	243 776	266 756	253 830	285 399	256 445	284 849	307 072	99,6%	8,0%	-	348 291	361 311	377 533	7,1%	100,0%
Compensation of employees	142 350	150 368	165 606	169 119	186 508	170 223	196 195	200 114	99,9%	10,0%	65,0%	238 138	246 272	257 329	8,7%	67,5%
Goods and services	72 025	78 645	87 778	70 035	85 775	72 747	76 437	95 026	98,3%	6,5%	29,8%	99 046	103 453	108 098	4,4%	29,2%
Depreciation	10 369	10 854	9 450	11 646	10 536	12 010	11 010	10 642	109,2%	-0,7%	4,3%	11 092	11 586	12 105	4,4%	3,3%
Interest, dividends and rent on land	3 718	3 909	3 922	3 030	2 580	1 465	1 207	1 290	84,8%	-30,9%	0,9%	15	-	-	-	0,1%
Transfers and subsidies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total expenses	228 462	243 776	266 756	253 830	285 399	256 445	284 849	307 072	99,6%	8,0%	-	348 291	361 311	377 533	7,1%	100,0%
Surplus/(Deficit)	-	(12 946)	-	17 041	-	24 908	-	-	-	-	-	-	-	-	-	-
Check	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 8: Budget programme resource considerations

Explanatory: Revenue Sources of the NNR

The main sources of revenue for the NNR are the application and authorisation fees paid to the NNR in terms of section 28 of National Nuclear Regulator Act and Government transfers (money appropriated by Parliament). The NNR also received revenue from other sources such as interest earned, donations and/or contributions received by the NNR, with the approval of the Minister, from any source.

The NNR revenue budget for the 2022/23 financial year is R307 million. This budget is expected to grow over the MTEF period, at an average of 4.39% per annum. The Minister of DMRE may, on the recommendation of the Board and in consultation with the Minister of Finance, and by notice in the Gazette, determine the fees payable to the NNR in respect of any annual nuclear application and authorisation fee. On average, application, and authorisation fees account for about 82% of the NNR revenue budget and the remaining revenue is from Government transfer (15%), interest earned (2%) and other income (1%). The NNR revenue collection is expected to remain stable over the MTEF period. However, the unforeseen closure of mining and mineral processing facilities, liquidations, revocations, reclassifications and decommissioning of facilities, mainly attributed to the effects of COVID-19 and the lockdown restrictions may hinder the entity's efforts to maximise revenue collections.

6. UPDATED KEY RISKS AND MITIGATIONS

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 of 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 SMRs or new technology	<ul style="list-style-type: none"> Update and implement SMR Annual Plan. 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"> Identify project leader/team leaders. Appoint project leader/team leaders.
	Failure to complete effective consultations with all relevant external stakeholders on indoor radon regulatory framework	<ul style="list-style-type: none"> Initiate meetings involving organisation's CEOs/DGs or Executives. Invite relevant stakeholders to workshops and meetings. Develop focussed communication providing details on each stakeholder role on indoor radon regulatory control in South Africa.

Outcome	Key Risk	Risk Mitigation
	Failure to complete reviews and assessment within timelines requested by applicants and authorisation holders	<ul style="list-style-type: none"> 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"> Continue to pursue approval of funding model by the DMRE. 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. 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.

Outcome	Key Risk	Risk Mitigation
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. 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 PDIs where market is conducive.

Table 9: Updated key risks and mitigations

7. PUBLIC ENTITIES

Name of Public Entities	Mandate	Outcomes
N/A	N/A	N/A

Table 10: Public entities

8. INFRASTRUCTURE PROJECTS

No.	Project Name	Programme	Description	Outputs	Start Date	Completion Date	Total Estimated Cost	Current Year Expenditure
1.	Cape Town Office construction project	Finance	Construction of office building to accommodate NNR employees in Cape Town	NNR Cape Town office space/building	November 2014	December 2024	R56 million	A total of R2 628 923 has been spent to date since inception of professional services on the construction of the Cape Town building

Table 11: Infrastructure projects

9. PUBLIC-PRIVATE PARTNERSHIP

Name	Purpose	Outputs	Current Value of Agreement	End Date Agreement
N/A	N/A	N/A	N/A	N/A

Table 12: Public-Private Partnership

PART D

Technical Indicator Description



PART D: TECHNICAL INDICATOR DESCRIPTION

Outcome	Ensure proactive management of potential litigation.
Indicator Title	PM3: Level of legislative compliance
Definition	The level to which the NNR complies with primary legislation as measured through the Exclaim software.
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.
Means of Verification (PoE)	<ul style="list-style-type: none"> Quarterly legislative compliance report
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% compliance to applicable legislation
Indicator Responsibility	Senior Manager: Legal Risk and Compliance

Outcome	Enhance stakeholder engagements (internal and external).
Indicator Title	RM7: % implementation of the stakeholder engagement plan
Definition	This indicator measures the levels of NNR engagement with stakeholders internally and externally.
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> Stakeholder engagement plan Quarterly reports
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the stakeholder engagement plan
Indicator Responsibility	Divisional Executive: CSS

Outcome	Enhance ICT capabilities to enable business support.
Indicator Title	PM1: % implementation of the ICT business support plan
Definition	Implementation of the approved information communication and technology 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>
Means of Verification (PoE)	<ul style="list-style-type: none"> Approved plans and progress reports
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the ICT business support plan
Indicator Responsibility	Divisional Executive: CSS

Outcome	Adequate funding for execution of NNR's mandate
Indicator Title	FM1: budget plan to fund NNR's activities
Definition	Budget plan for NNR activities.
Source/Collection of Data	<ul style="list-style-type: none"> Board-approved budget
Method of Calculation	Milestones as per the organisational performance framework.
Means of Verification (PoE)	<ul style="list-style-type: none"> Board-approved budget Quarterly financial reports
Assumptions	<ul style="list-style-type: none"> Submission of complete authorisation holders' data-base 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 Mineral Resources and Energy There are not significant budget cuts/ austerity measures
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% funding of NNR planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Financial sustainability of the CNSS.
Indicator Title	FM2: % 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
Method of Calculation	Milestones as per the organisational performance framework regarding plans.
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
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% funding of CNSS planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Inclusion of previously disadvantaged individuals in economic activities.
Indicator Title	FM3: % procurement spent on designated groups
Definition	The percentage of procurement spent against the total procurement value of planned bids, as per the 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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Supply Chain Management (SCM) report on bids awarded to targeted groups
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
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	PM2: % implementation of the Cape Town office construction project 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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Project plan • Project report
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the Cape Town office construction project plan
Indicator Responsibility	Chief Financial Officer

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM2a: number of inspections conducted (NORM, NTWP and NPP)
Definition	<ul style="list-style-type: none"> • The number of regulatory inspections conducted based on the Compliance Assurance Plan (CAP). • The NNR (CAP) is made up of the following activities: <ul style="list-style-type: none"> ○ Inspections of authorised facilities. ○ Audits of specific areas when required. ○ Investigations of specific matters where applicable. ○ Enforcement actions when there is a nuclear safety or security breach; and ○ Analysis of environmental samples i.e., air, water, soil, sediments etc. around facilities and/or communities around installations.
Source/Collection of Data	<ul style="list-style-type: none"> • Compliance Assurance Plan • Inventory of inspections conducted
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 the of the annual target.</p>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Inspection reports • Letters to authorisation holder or applicant informing them of inspection outcomes • Inventory of inspections conducted
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	All planned inspections conducted
Indicator Responsibility	Divisional Executive: NTN Divisional Executive: NPP

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM2b: ¹⁴ % implementation of the reviews and assessments plan (NORM, NTWP and NPP)
Definition	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"> • Authorisation holder documentation/submissions and requests for various approvals to the NNR • Database of submissions
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Letter to authorisation holder or applicant, informing them of review and assessment outcomes • Quarterly plan for reviews and assessments • Inventory of reviews and assessments undertaken
Assumptions	<ul style="list-style-type: none"> • Holders of nuclear authorisations and applicants submit safety assessments as per agreed schedule • Availability of NNR resources • Availability of TSO resources to assist with reviews, as necessary • 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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of reviews and assessments for all programmes (NORM, NTWP and NPP)
Indicator Responsibility	Divisional Executive: NTN Divisional Executive: NPP

¹⁴ The Regulator and each of the holders agree on the schedule of reviews and assessments on a quarterly basis. An annual reconciliation is done at the end of the financial year (FY).

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM2c: % implementation of the reviews and assessments plan (NISL)
Definition	Reviews and assessments undertaken for effective nuclear and radiation safety regulation for NISL project.
Source/Collection of Data	<ul style="list-style-type: none"> • Authorisation holder documentation/submissions and requests for various approvals to the NNR • Database of submissions
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Letter to authorisation holder or applicant, informing them of review and assessment outcomes • Quarterly plan for reviews and assessments • Inventory of reviews and assessments undertaken
Assumptions	<ul style="list-style-type: none"> • Holders of nuclear authorisations and applicants submit safety assessments as per agreed schedule • Availability of NNR resources • Availability of TSO resources to assist with reviews, as necessary • 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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of the reviews and assessments plan for the NISL project
Indicator Responsibility	Divisi Divisional Executive: NPP

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM2d: % implementation of the reviews and assessments plan (SGR)
Definition	Reviews and assessments undertaken for effective nuclear and radiation safety regulation with regards to the SGR project.
Source/Collection of Data	<ul style="list-style-type: none"> • Authorisation holder documentation/submissions and requests for various approvals to the NNR • Database of submissions
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Letter to authorisation holder or applicant, informing them of review and assessment outcomes • Quarterly plan for reviews and assessments • Inventory of reviews and assessments undertaken
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of the reviews and assessments plan for the SGR project
Indicator Responsibility	Divisional Executive: NPP

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM3: Develop stakeholder consultation plan for radon in dwellings national plan
Definition	Development of a plan to engage stakeholders regarding participation in the development of the radon in dwellings national plan.
Source/Collection of Data	<ul style="list-style-type: none"> • Radon regulatory framework • Stakeholder consultation plan
Method of Calculation	Milestones (approval stages) as per the organisational performance framework.
Means of Verification (PoE)	<ul style="list-style-type: none"> • Stakeholder consultation plan
Assumptions	<ul style="list-style-type: none"> • Availability of stakeholders • Availability of human resources • Adequate cooperation of stakeholders
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Annually
Desired Performance	Approved Stakeholder Consultation Plan
Indicator Responsibility	Divisional Executive: NTN

Outcome	Provide an effective oversight of the Long-Term Operations.
Indicator Title	RM4 % review of the LTO safety case
Definition	This indicator measures the progress made in the review of the LTO safety case.
Source/Collection of Data	<ul style="list-style-type: none"> • Resource plan • LTO Review plan
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Safety evaluation progress report • LTO review plan
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% review of the LTO safety case
Indicator Responsibility	Divisional Executive: NPP

Outcome	Provide an independent radio-analytical verification capability and capacity.¹⁵
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 • Schedule of accreditation • On-site assessment 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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Approved accreditation plan • SANAS on-site assessment report • SANAS action plan
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	SANAS Accreditation for the NNR laboratory
Indicator Responsibility	Divisional Executive: RITS

¹⁵ Outcome definition: Implementation of planned activities to be able to attain SANAS accreditation on identified methods i.e. Spec:(Soil/Sediment/Water) ISO/IEC 17025:2017.

Outcome	Ensure the readiness to regulate SMRs.
Indicator Title	RM5: % implementation of the SMR plan
Definition	Implementation of the recommendations of the SMR benchmarking report.
Source/Collection of Data	<ul style="list-style-type: none"> Benchmarking report Approved implementation plan
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> Approved implementation plan Implementation progress reports
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the recommendations of the SMR benchmarking report
Indicator Responsibility	Divisional Executive: RITS

Outcome	Ensure the long-term sustainability of the CNSS.
Indicator Title	RM6: Produce pilot report (Year 1)
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
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>
Means of Verification (PoE)	<ul style="list-style-type: none"> • Pilot plan • Approved pilot report
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
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the pilot plan for CNSS pillars for the first year
Indicator Responsibility	Divisional Executive: RITS

ANNEXURE A: DETAILED RISK REGISTER

NATIONAL NUCLEAR REGULATOR
TYPE OF ASSESSMENT: STRATEGIC RISK ASSESSMENT
FINANCIAL YEAR: 2022/23
DATE OF ASSESSMENT: 15 SEPTEMBER 2021

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Provide an independent radio-analytical verification capability and capacity	Lack of SANAS accreditation for existing laboratory methods	Compliance/Regulatory	<ol style="list-style-type: none"> SANAS requirements were updated to align with the new ISO/IEC 17025:2017 standard. Laboratory analysis methods are not fully validated. 	<ol style="list-style-type: none"> Laboratory analysis results may not be defensible legally. NNR utilises the services of a licence holder Necsa to analyse samples when accredited results are required. Delays in obtaining results to make timely regulatory decisions. Members of the public potentially exposed to radiation. NNR reputational damage. 	Critical	5	Likely	4	
Ensure the readiness to regulate SMRs	Inadequate regulatory standards to regulate and authorise SMRs or new technology	Compliance/Regulatory	<ol style="list-style-type: none"> Current regulatory standards may not fully cover all technical and safety aspects of new technology/designs. Inadequate knowledge in SMR technology, standards and authorisation approaches. Policy uncertainty on SMR technology choices and timelines. 	<ol style="list-style-type: none"> Inability to effectively provide regulatory licensing requirements, guidance, position and regulation of SMRs. Ineffective and inefficient implementation of NNR mandate of protecting of persons, property and the environment against nuclear damage. NNR reputational damage. Potential uncertainties for licensing of SMRs. 	Critical	5	Likely	4	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
20	<p>1. Verification is conducted at other laboratories.</p> <p>2. NNR laboratory is established, and staff is competent to operate the instruments.</p> <p>3. About 85% of the samples as per the verification plan are analysed at the NNR laboratory.</p> <p>4. 70% of methods are validated and verified as per SANAS requirements.</p> <p>5. Procedures for analysis of the verification samples developed and implemented.</p> <p>6. The NNR laboratory continues to participate in the inter-laboratory comparison studies to demonstrate our technical competence.</p> <p>7. Analysis of samples as per the approved verification plan.</p>	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	<p>1. Updating of accreditation plan and SANAS corrective action plan.</p> <p>2. Implementation of the activities of the approved accreditation plan and SANAS corrective action plan.</p>	Ms N. Mohlala (Manager: LAB)	1-Apr-2022	31-Mar-2023	Ms L. Mpete (Divisional Executive: RITS)
20	<p>1. NNR Act.</p> <p>2. Regulations on safety standards and regulatory practices.</p> <p>3. Draft regulations.</p> <p>4. SMRs action plans.</p> <p>5. Participation in IAEA SMR webinars and committees.</p> <p>6. Bilateral cooperation.</p> <p>7. Established NNR SMR team.</p>	Partially Adequate	Partially Effective	Moderate	3	Moderate	3	9	<p>1. Update and implement SMR Annual Plan.</p> <p>2. Progress Report on Gap Analysis on Regulatory Standards as per SMR Annual Plan.</p>	Ms B. Mbebe (Manager: RSP)	1-Apr-2022	31-Mar-2023	Ms L. Mpete (Divisional Executive: RITS)

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	Inconsistency in implementation of enforcement actions	Core Verification / Enforcement	<ol style="list-style-type: none"> 1. Lack of harmonised approach regarding rating of findings. 2. Lack of harmonised approach in the follow up of occurrences. 3. Insufficient training and guidance provided to inspectors. 	<ol style="list-style-type: none"> 1. Inconsistent application of enforcement actions. 2. NNR reputational damage. 3. Increased pressure from stakeholders. 	Major	4	Common	5	
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	Failure to complete compliance assurance activities on time (inspections, environmental verification, investigation, etc.)	Compliance/Regulatory	<ol style="list-style-type: none"> 1. Insufficient staffing due to resignations and unfunded positions. 2. Business/ operational dynamics that impact planned work. 3. Protest action. 4. Prevailing conditions at site may prevent the conduct of planned activities (e.g., safety, security or holder availability). 5. Decisions taken by other regulatory authorities prevent the conduct of planned compliance activities. 6. Impact of COVID-19. 	<ol style="list-style-type: none"> 1. Non-delivery or delays in meeting performance objectives. 2. Reputational risk. 3. Holder non-compliances not identified. 	Critical	5	Likely	4	
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	Failure to complete NISL and SGR review and assessment tasks	Compliance/Regulatory	<ol style="list-style-type: none"> 1. Insufficient staff. 2. Unavailability of TSO specialists. 3. Conflicting review and assessment priorities. 4. Availability of project leader (NISL). 5. Long-term projects. 	<ol style="list-style-type: none"> 1. Non-responsiveness to applicant needs. 2. Delayed review process. 3. Negative impact on quality of review and therefore safety. 4. Over-reliance on project leaders. 	Moderate	3	Common	5	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
20	<p>1. Enforcement policy and procedure (PRO-ENF-001 and PRO-ENF-002).</p> <p>2. All enforcement actions are reviewed by management.</p> <p>3. Inspector qualification process.</p>	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	<p>1. Develop work instruction for inspectors on implementation of enforcement actions.</p> <p>2. Finalise the enforcement modules of the Inspector training programme.</p> <p>3. Develop and implement the plan for grading matrix related to non-compliances.</p> <p>4. Development of non-compliance database.</p>	Mr O. Phillips (Divisional Executive: NPP) Ms D. Kgomo (Divisional Executive: NPP)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP) Ms D. Kgomo (Divisional Executive: NTN)
20	<p>1. Annual planning of compliance assurance activities is done in line with available resources.</p> <p>2. Timeframes included in inspector's performance contracts and monitored by the managers.</p> <p>3. Defined and documented compliance assurance processes.</p> <p>4. Quarterly and monthly review and reporting on delivery of compliance assurance activities.</p> <p>5. Liaising with SAPS as and when needed for affected areas.</p> <p>6. Ongoing review and adjustment of the work plans in line with organisational and authorisation holder's response to COVID-19.</p>	Adequate	Effective	Moderate	3	Likely	4	12	<p>1. Fill existing vacancies that are funded as they arise.</p>	Mr O. Phillips (Divisional Executive: NPP) Ms D. Kgomo (Divisional Executive: NTN)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP) Ms D. Kgomo (Divisional Executive: NTN)
15	<p>1. Additional resources appointed.</p> <p>2. TSO appointed.</p> <p>3. Quarterly review plan.</p> <p>4. Identify and assign deputy project manager.</p>	Partially Adequate	Effective	Moderate	3	Likely	4	12	<p>1. Identify project leader/team leaders.</p> <p>2. Appoint project leader/team leaders.</p>	Mr O. Phillips (Divisional Executive: NPP)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP)

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	Failure to complete effective consultations with all relevant external stakeholders on indoor radon regulatory framework	Strategic	<ol style="list-style-type: none"> 1. Lack of understanding of the significance of regulating indoor radon in South Africa. 2. Stakeholders not realising their role on indoor radon control. 3. Some key stakeholders do not have any relationship with the NNR and do not appreciate its mandate. 4. Ineffective cooperative agreements (where applicable). 5. Radon project not a priority for external stakeholders. 	<ol style="list-style-type: none"> 1. Ineffective engagements and lack of feedback. 2. Negative impact on the development of indoor radon regulatory framework. 	Major	4	Likely	4	
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	Failure to complete reviews and assessment within timelines requested by applicants and authorisation holders	Compliance/Regulatory	<ol style="list-style-type: none"> 1. Human resource constraints due to unavailability of funds for approved positions. 	<ol style="list-style-type: none"> 1. Delayed responses to submissions from authorisation holders or applicants. 2. Employees suffering burnout. 3. Non-delivery poses reputational risk to the NNR. 	Critical	5	Common	5	
Provide an effective oversight of the Long-Term Operations	Delays in processing LTO application	Compliance/Regulatory	<ol style="list-style-type: none"> 1. Unavailability of financial and human resources. 2. COVID-19-related inefficiencies especially dealing with international community. 3. Unavailability of bilateral partners due to own commitments. 4. Difficulty recruiting relevant competence due to scarce skills and internal processes etc. 	<ol style="list-style-type: none"> 1. Inability to effectively regulate LTO for KNPS. 2. Reputational damage. 	Major	4	Common	5	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
16	1. Signed cooperative agreements with some key stakeholders.	Inadequate	Ineffective	Major	4	Likely	4	16	1. Initiate meetings involving organisation's CEOs/ DGs or Executives. 2. Invite relevant stakeholders to workshop and meetings. 3. Develop focussed communication providing details on each stakeholder role on indoor radon regulatory control in South Africa.	Mr O.J. Pule (Manager: Contaminated Sites)	1-Apr-2022	31-Mar-2023	Ms D. Kgomo (Divisional Executive: NTN)
25	1. Submissions prioritised in consultation with authorisation holders and applicants following a graded approach. 2. Quarterly review plans for all programmes.	Inadequate	Ineffective	Major	4	Moderate	3	12	1. Continue to motivate for positions to be filled.	Mr P. Bester (PM: NPP) Mr P. Mohajane (PM: NORM) Mr T. Pather (PM: NTWP)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP) Ms D. Kgomo (Divisional Executive: NTN)
20	1. TSO currently appointed. 2. Existing regulatory framework including the draft TAG. 3. Project and resource plan. 4. Training plan.	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	1. Draft recommendation for LTO authorisation fees. 2. Streamline recruitment process to enable hiring competent individuals. 3. Internal training based on Technical Assessment Guide (TAG) 5. 4. Ensure public engagements by Eskom. 5. Collate information from bilateral partners in preparation for review.	Mr O. Phillips (Divisional Executive: NPP)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP)

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Provide an effective oversight of the Long-Term Operations	Undue pressure to finalise informed regulatory decision for LTOs	Compliance/Regulatory	<ol style="list-style-type: none"> 1. Failure by Eskom to submit the safety case on time. 2. Public resistance to LTO. 3. Failure by Eskom to meet regulatory requirements for the LTO. 	<ol style="list-style-type: none"> 1. Delays in finalising the regulatory decisions on LTO. 2. Reputational damage. 3. Inability to review the safety case within the time given. 4. Extended shut down of Koeberg. 	Critical	5	Common	5	
Adequate funding for execution of NNR's mandate	Inability to sustain the NNR financially	Financial	<ol style="list-style-type: none"> 1. Late approval and gazetting of authorisation fees. 2. Late payment of authorisation fees by authorisation holders. 3. Possible reclassification and surrender of nuclear authorisations. 4. Minimal contribution by government related to regulatory activities. 	<ol style="list-style-type: none"> 1. Inability to fund regulatory activities. 2. Strategic projects held back. 	Critical	5	Likely	4	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
25	<ul style="list-style-type: none"> 1. Timelines stipulated on the existing regulatory framework. 2. Quarterly project meetings with Eskom to track progress. 3. LTO regulatory standards in place. 4. Inspection programme being implemented. 5. Public engagement processes. 6. Eskom LTO dashboard. 7. Regular meetings with Eskom Executive. 	Partially Adequate	Partially Effective	Critical	5	Moderate	3	15	<ul style="list-style-type: none"> 1. Develop the Technical Assessment Guide. 2. Apprise the Executive Authority on progress made to the project. 3. Monitor Eskom's LTO dashboard. 	Mr O. Phillips (Divisional Executive: NPP)	1-Apr-2022	31-Mar-2023	Mr O. Phillips (Divisional Executive: NPP)
20	<ul style="list-style-type: none"> 1. Robust debtors collection process both in financial and legal activities. 2. Budget allocation is approved at EXCO to ensure alignment with strategic imperatives and key regulatory activities. 3. Billing in advance. 4. Levy of interest on all overdue debts. 	Partially Adequate	Partially Effective	Critical	5	Moderate	3	15	<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. 	Mr D. Netshivhazwaulu (Chief Financial Officer)	1-Apr-2022	31-Mar-2023	Mr D. Netshivhazwaulu (Chief Financial Officer)

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Enhance ICT capabilities to enable business support	Compromise of information and business continuity and inability to operate effectively in a changing environment	Disaster Recovery/ Business Continuity	ICT systems and processes do not support business requirements. ICT capacity to ensure safe and secure continuation of business operations.	<ol style="list-style-type: none"> 1. Leaking or loss of information. 2. Reputational harm. 3. Business continuity negatively impacted 4. Inability to respond to emerging threats and changes in operating environment. 	Critical	5	Likely	4	
Ensure the long-term sustainability of the CNSS	Inability to leverage relevant strategic partnerships	Stakeholder communication	<ol style="list-style-type: none"> 1. Inadequate partnership agreements (i.e., obligations for both parties unclearly defined). 2. Lack of involvement of all partners/stakeholders in decision making process. 3. Inadequate feedback to primary stakeholders (NNR programmes) regarding project changes/status. 	<ol style="list-style-type: none"> 1. Ineffective partnerships/ collaboration. 2. Reputational damage to either party. 3. Breach of terms and conditions of the partnership agreement/s. 4. Lack of return on investment. 5. Existing partners may pull out/potential partners may not want to collaborate. 	Major	4	Likely	4	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
20	1. ICT Strategy. 2. APP and AOP. 3. Ongoing training and awareness for employees.	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	1. Conduct regular and ongoing environmental scans and risk assessments to identify new and emerging threats. 2. Conduct ICT security assessments and tests and implement remediation plans to address identified gaps. 3. Develop and implement a business continuity plan which includes regular testing. 4. Implement ICT governance standards and monitor and report on compliance with standards. 5. Implement ICT training and communication plan for employees. 6. Develop and implement a training plan for ICT personnel.	Mr J. Boulton (Manager: ICT)	1-Apr-2022	31-Mar-2023	Ms A. Simon (Divisional Executive: CSS)
16	1. MoAs in place. 2. Partnership/collaboration agreements. 3. Integrated CNSS Sustainability Plan.	Partially Adequate	Partially Effective	Major	4	Likely	4	16	1. Develop spokes/project specific agreements. 2. Implementation of revised CNSS processes (RRD/TSS/E&T/SPs).	Dr S. Nhleko (Acting Director: CNSS)	1-Apr-2022	31-Mar-2023	Ms L. Mpete (Divisional Executive: RITS)

Outcome	Risk Analysis				Inherent Impact Rating	Value	Inherent Likelihood Rating	Value	
	Risk Description	Risk Category	Root Cause(s) (Contributing factor)	Consequence(s) Description					
Financial sustainability of the CNSS	Failure to sustain CNSS programmes in the long-term	Financial	1. Funding limitation to ensure long-term sustainability of the CNSS.	1. Inability to fulfil mandate/achieve objectives. 2. Financial loss. 3. Reputational damage. 4. Interruptions of business operations. 5. Failure to implement long-term strategies.	Critical	5	Common	5	
Ensure proactive management of potential litigation	Any possible legal challenges to NNR	Litigation	1. Non-compliance with established processes and legislation. 2. Lack of transparency in decision-making. 3. Different interpretation/understanding of legislative requirements.	1. Reputational harm to the NNR. 2. Penalties associated with non-compliance to legislation.	Critical	5	Likely	4	
Enhance stakeholder engagement (internal and external)	Compromise and damage to the reputation of the Regulator	Stakeholder Communication	1. Failure to ensure ongoing and continuous improvement to stakeholder engagement processes.	1. Stakeholders unaware of NNR regulatory processes and programmes. 2. Delays in NNR projects due to lack of stakeholder cooperation. 3. Reputational harm and lack of trust in NNR's regulatory processes.	Moderate	3	Common	5	
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	Infrastructure	1. The passage of time since the inception of project at which point the professional services team was appointed to date.	1. Delays in construction phase of the project. 2. Professional services team opting out of the contract.	Moderate	4	Common	4	
Inclusion of previously disadvantaged individuals (PDIs) in economic activities	Lack of capable service providers to deliver required scientific specialised services	Supply Chain Management	1. Constrained nuclear industry nationally and continentally.	1. No response to NNR bids by PDI's cohort.	Moderate	4	Common	5	

Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Residual Risk Rating	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
25	1. Current allocated NNR budget. 2. Current staff complement. 3. CNSS Strategic Business Plan. 4. Integrated CNSS Sustainability Plan.	Partially Adequate	Partially Effective	Major	4	Likely	4	16	1. Implement and report on the interim sustainability strategies for each of the CNSS pillars and revise them as appropriate based on the pilot projects. 2. Implementation of Integrated CNSS Sustainability Plan in consultation with CSS/review of Pelekeza report and revise as appropriate based on the pilot projects.	Dr S. Nhleko (Acting Director: CNSS)	1-Apr-2022	31-Mar-2023	Ms L. Mpete (Divisional Executive: RITS)
20	1. Established regulatory universe. 2. Monitor and report on compliance to legislative requirements. 3. Approved internal processes to ensure compliance with legislation. 4. Implementation of the file plan. 5. Classification of information.	Adequate	Effective	Moderate	3	Moderate	3	9	1. Review and update NNR regulatory universe. 2. Assess and monitor compliance on a quarterly basis. 3. Monitor and report on legislative compliance. 4. Annual refresher training on POPIA training.	Mr F. Ndou (Senior Manager: LRC) Ms F. Malashe (Manager: KQM)	1-Apr-2022	31-Mar-2023	Mr F. Ndou (Senior Manager: LRC)
15	1. Integrated Corporate Communications & Stakeholder Relationship Management Strategy 2019.	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Develop and implement a relevant 2022-2023 stakeholder engagement plan for internal and external stakeholders.	Mr G. Moonsamy (Manager: CSR)	1-Apr-2022	31-Mar-2023	Ms A. Simon (Divisional Executive: CSS)
16	1. The service level agreement between the NNR and professional services team have adequate provisions to handle the current impasse.	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Appointment of a mediator to intervene between parties in terms of the service level agreement.	Project Steering Committee	1-Apr-2022	31-Mar-2023	Mr D. Netshivhazwaulu (Chief Financial Officer)
20	1. Fair and transparent Supply Chain Management policy.	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Continuous engagement with stakeholders in industry events and activities. 2. Continuously testing the market and setting aside bids for PDIs where market is conducive.	Ms L. Nkosi (Senior SCM Specialist)	1-Apr-2022	31-Mar-2023	Mr D. Netshivhazwaulu (Chief Financial Officer)

