



NC PSDF | DRAFT SDF



Province of the
Northern Cape
REPUBLIC OF SOUTH AFRICA



PROJECT INFORMATION

BID NO:	5/2/2/1 DALRRD NC – 0001 (2023/2024)		
DOCUMENT TITLE:	DRAFT SPATIAL DEVELOPMENT FRAMEWORK		
DOCUMENT PHASE:	PHASE 6		
DURATION:	n/a		
SUBMISSION DATE:	20 September 2024	SIGNATURE:	
AUTHOR(S)	MASWANA GROUP OF COMPANIES Casper Badenhorst Casper@msjv.co.za		
APPROVED BY:	PROJECT BENEFICIARY: Northern Cape Office of the Premier Dr Gerrit Botha gbothaotp1@gmail.com	SIGNATURE:	
APPROVED BY:	PROJECT SPONSOR: Department of Agriculture, Land Reform and Rural Development Gerhard de Bruin Gerhardus.DeBruin@dalrrd.gov.za	SIGNATURE:	

Copyright Disclaimer

This document contains confidential and proprietary information from the Northern Cape Office of the Premier, and Maswana JV (PTY) Ltd and is protected by copyright in favour of the Office of the Premier and may not be reproduced or used without the written consent of the Office of the Premier, which has been obtained beforehand. This document is prepared exclusively for the Northern Cape Office of the Premier and is subject to all confidentiality, copyright and trade secrets, rules, intellectual property law, and practices of South Africa.

NORTHERN CAPE PROVINCE PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK

1ST DRAFT

SEPTEMBER 2024

PREPARED FOR:



Province of the
Northern Cape
REPUBLIC OF SOUTH AFRICA

PREPARED BY:





GLOSSARY OF TERMS

- **Agriculture:** Land or buildings used for farming activities like crop cultivation, livestock, beekeeping, forestry, and associated activities, including farm stalls.
- **Agro-Processing:** Part of the manufacturing sector that processes agricultural raw materials and intermediate products, focusing on developing new processing technologies from lab to commercial scale.
- **Biodiversity:** The variety of life forms in terrestrial, marine, and aquatic ecosystems, including species diversity, ecosystem diversity, and genetic variability.
- **Built Environment:** Manmade surroundings for human activities, including infrastructure for energy, water, waste, transport, settlements, and heritage resources.
- **Catalytic Project:** A large-scale project of national or provincial importance that significantly impacts employment, services, economic and social investment, and spatial development.
- **Critical Biodiversity Areas (CBAs):** Essential natural areas for ecological sustainability that should remain natural or semi-natural, with low-impact, sensitive land uses.
- **Climate Change Mitigation & Adaptation:** Implementing new technologies and renewable energies to enhance energy efficiency and reduce greenhouse gas emissions.
- **Conservation:** Managing natural and human resources to preserve and protect them against undesirable development, including maintenance and rehabilitation.
- **Corridors:** Development links between nodes that encourage intensified development and provide efficient access to economic opportunities, typically including public transport routes.
- **Densification:** Increasing the use of space within existing areas and new developments, resulting in more units and higher population density.
- **Development Corridor:** A linear network of dense infrastructure, economic activity, and residential development along major roads or railways, supporting various interrelated functions like transport, trade, and basic services.
- **Economic Sectors:** Categories of economic activities, including the primary sector (agriculture, mining), secondary sector (manufacturing, construction), tertiary sector (services), quaternary sector (education, research), and quinary sector (high-level decision-making).
- **Ecological Support Areas (ESAs):** Areas kept in ecologically functional condition to support Critical Biodiversity Areas and Protected Areas.
- **Infill Development:** Developing vacant or underutilised land within existing settlements to optimize infrastructure use, increase urban densities, and promote integration.
- **Integrated Development Plan (IDP):** A five-year plan by local government to determine development needs and link projects to the municipal budget.
- **Infrastructure:** Essential facilities and services for human settlements and economic activities, including roads, utilities, and social services.
- **Land Reform:** Correcting historical land ownership imbalances through land restitution, redistribution, and tenure reform.
- **Land Use Management:** Regulating the use or change in the form or function of land, including land development.
- **Mixed Land Use:** Combining different land uses like commercial, residential, industrial, and retail in one area to increase access and convenience.
- **National Protected Areas Expansion Strategy (2016):** A strategy for cost-effective protected area expansion to improve ecosystem representation, ecological sustainability, and climate change resilience.
- **Nodes:** Concentrations of mixed land uses, ideally with high-density residential and transport facilities, ensuring universal access.
- **Northern Cape Planning System (NCPS):** A comprehensive spatial planning tool designed to support spatial transformation, targeting, and governance across the province. As a web-based online system, it enhances provincial planning functions by enabling efficient data





sharing and collaboration. The NCPS facilitates spatial targeting and guides land use management and spatial planning, ensuring alignment with the Provincial Spatial Development Framework (PSDF). It strengthens the implementation of SPLUMA, promotes sustainable development, and improves monitoring and evaluation processes. Ultimately, the NCPS serves as a key mechanism for supporting spatial governance and driving the province's development objectives.

- **Planning Toolkits** has been developed to simplify and clarify planning guidelines, concepts, and spatial planning procedures, making complex information more accessible for decision-makers. Designed as a support tool, it provides additional detail not covered in the Provincial Spatial Development Framework (PSDF), enabling more informed decision-making and enhancing the effective implementation of the PSDF. The toolkit includes specialized guides that unpack essential spatial planning concepts and methodologies, offering targeted assistance for various spatial planning needs in the province. By bridging gaps in the PSDF, the Planning Toolkit plays a key role in ensuring accurate and efficient planning processes across the Northern Cape.
- **Protected Area:** Legally protected areas of natural, ecological, architectural, or historical interest.
- **Rural:** Areas outside urban boundaries primarily devoted to agriculture or natural environments.
- **Spatial Development Framework (SDF):** A framework guiding the spatial distribution of land uses within a municipality to achieve the goals of the municipal IDP.
- **SPLUMA:** The Spatial Planning and Land Use Management Act 16 of 2013, provides regulations for national spatial planning and land use management.
- **Strategic Water Source Areas (SWSAs):** 'Water factories' that significantly support the country's surface and groundwater supply, identified and mapped for protection.

- **Sustainable Development: Development** that meets present needs without compromising future generations' ability to meet their own needs.
- **Square Kilometre Array (SKA) Advantage Area:** Declared Astronomy Advantage Area (AAA) in terms of the Astronomy Geographic Advantage (AGA) Act of 2007, which identifies regulation regarding prohibited activities within AAAs.
- **Urban Edge:** A demarcated line and policy to manage, direct, and limit urban expansion.
- **Urban Sprawl:** Uncontrolled expansion of a town into greenfield land outside the urban edge
- **Provincial Spatial Action Area:** Region of the Northern Cape province delineated by similarity of social, economic and development intervention types.





TABLE OF CONTENTS

1 INTRODUCTION	8
1.1 The Northern Cape In Context	11
1.2 Key Demographics.....	12
1.3 Key Findings Of The Status Quo Analysis	13
1.4 Key Findings Of The Spatial And Sectoral Analysis And Stakeholder Consultation.....	17
2 THE PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK 20	
2.1 Introduction	20
2.2 Strategic Proposals.....	25
2.2.1 Driver 1: Thriving Economic Engines.....	25
2.2.2 Driver 2: Transforming Spaces And Livelihoods	42
2.2.3 Driver 3: Conservation Of Resource Production Areas	49
2.2.4 Driver 4: Effective Spatial Governance.....	55
2.3 Composite Spatial Framework	58
2.3.1 Defining Components Of The Composite.....	60
2.4 Spatial Action Areas	61
2.4.1 Northern Cape-Specific Spatial Action Areas (PSAAs).....	63
2.4.2 Alignment to the NSDF Spatial Action Areas.....	64
2.5 Spatial Action Area Directives	67
2.5.1 Coastal Spatial Action Area (CSAA)	67
2.5.2 Douglas To Kakamas Spatial Action Area (DKSAA)	71
2.5.3 Gamagara Spatial Action Area (GSAA)	75
2.5.4 Kalahari Spatial Action Area (KHSAA).....	79
2.5.5 Karoo Spatial Action Area (KSAA).....	82
2.5.6 Rural Spatial Action Area (RSAA).....	85

2.5.7 Vaalharts Spatial Action Area (VHSAA).....	88
--	----

3 CONCLUSION	91
---------------------------	-----------

REFERENCES	92
-------------------------	-----------

TABLES, FIGURES AND MAPS

<i>Table 1: Key Objectives of the NC PSDF</i>	<i>9</i>
<i>Table 2: Key Reference Documents considered</i>	<i>9</i>
<i>Table 3: Key requirements of the PSDF Review considered</i>	<i>13</i>
<i>Table 4: Key Development Nodes - Coastal Spatial Action Area.....</i>	<i>68</i>
<i>Table 5: Key Development Zones and Corridors - Coastal Spatial Action Area</i>	<i>69</i>
<i>Table 6: Key Development Nodes – Douglas to Kakamas Spatial Action Area</i>	<i>72</i>
<i>Table 7: Key Development Zones and Corridors -Douglas to Kakamas Spatial Action Area</i>	<i>73</i>
<i>Table 8: Key Development Nodes - Gamagara Spatial Action Area</i>	<i>76</i>
<i>Table 9: Key Development Zones and Corridors - Gamagara Spatial Action Area</i>	<i>77</i>
<i>Table 10: Key Development Nodes - Kalahari Spatial Action Area</i>	<i>80</i>
<i>Table 11: Key Development Zones and Corridors - Kalahari Spatial Action Area</i>	<i>80</i>
<i>Table 12: Key Development Nodes - Karoo Spatial Action Area</i>	<i>82</i>
<i>Table 13: Key Development Zones and Corridors - Karoo Spatial Action Area</i>	<i>83</i>
<i>Table 14: Key Development Nodes - Rural Spatial Action Area</i>	<i>86</i>
<i>Table 15: Key Development Zones and Corridors: Rural Spatial Action Area</i>	<i>86</i>
<i>Table 16: Key Development Nodes - Vaalharts Spatial Action Area</i>	<i>88</i>





<i>Table 17: Key Development Zones and Corridors - Vaalharts Spatial Action Area.....</i>	<i>89</i>
---	-----------

<i>Figure 1: Key Provincial Demographics (also refer to the Status Quo Report for more detail), Stats SA 2022, Quantec, 2024)</i>	<i>12</i>
<i>Figure 2: PSDF Alignment with key policy directives</i>	<i>21</i>
<i>Figure 3: PSDF Driver and Spatial Outcome Composition</i>	<i>24</i>
<i>Figure 4: Driver 1 Composition</i>	<i>25</i>
<i>Figure 5: Driver 2 Composition</i>	<i>42</i>
<i>Figure 6: Driver 3 Composition</i>	<i>49</i>
<i>Figure 7: Driver 4 Composition</i>	<i>55</i>
<i>Figure 8: Elements informing the NC PSDF Composite Map</i>	<i>58</i>

<i>Map 1: Agriculture Development and Value Chain Additions</i>	<i>27</i>
<i>Map 2: Mining and Mineral benefaction</i>	<i>29</i>
<i>Map 3: Tourism Market Development</i>	<i>31</i>
<i>Map 4: Energy Sector Development</i>	<i>33</i>
<i>Map 5: Manufacturing and Trade Support</i>	<i>35</i>
<i>Map 6: Competitive Infrastructure Development -Water & Sanitation37</i>	
<i>Map 7: Competitive Infrastructure Development - Accessibility & Mobility</i>	<i>39</i>
<i>Map 8: Maritime Economic Support</i>	<i>41</i>
<i>Map 9: Sustainable Human Settlement and Public Transport Development.....</i>	<i>44</i>
<i>Map 10: Integration of Rural Development, Land Reform and Food Security.....</i>	<i>46</i>
<i>Map 11: Thriving Employment and Educational Landscapes</i>	<i>48</i>
<i>Map 12: Conservation of Resource Production Areas – Ecological Resource base.....</i>	<i>50</i>
<i>Map 13: Conservation of Resource Production Areas – Strategic Resources</i>	<i>54</i>
<i>Map 14: Effective Spatial Governance</i>	<i>57</i>
<i>Map 15: Northern Cape PSDF Composite Map</i>	<i>59</i>
<i>Map 16: Northern Cape Provincial Spatial Action Areas (PSAAs).....</i>	<i>62</i>

<i>Map 17: Alignment between the NSDF, 2020 and the PSDF, 2024.....</i>	<i>66</i>
<i>Map 18: Coastal Spatial Action Area (CSAA)</i>	<i>70</i>
<i>Map 19: Douglas to Kakamas Spatial Action Area (DKSAA)</i>	<i>74</i>
<i>Map 20: Gamagara Spatial Action Area (GSAA).....</i>	<i>78</i>
<i>Map 21: Kalahari Spatial Action Area (KHSAA).....</i>	<i>81</i>
<i>Map 22: Karoo Spatial Action Area (KSAA)</i>	<i>84</i>
<i>Map 23: Rural Spatial Action Area.....</i>	<i>87</i>
<i>Map 24: Vaalharts Spatial Action Area (VHSAA).....</i>	<i>90</i>

ABBREVIATIONS

COGHSTA	Department of Cooperative Governance, Human Settlements and Traditional Affairs
CSAA	Coastal Spatial Action Area
DALRRD	Department of Agriculture, Land Reform and Rural Development
DDM	District Development Model
DEDAT	Department of Economic Development and Tourism
DENC	Department of Environmental Affairs and Nature Conservation
DKSAA	Douglas to Kakamas Spatial Action Area
DM	District Municipality
DR & PW	Department Roads and Public Works
DSAC	Department Sports Arts and Culture
DSD	Department of Social Development
DTSL	Department Transport Safety & Liaison
DWS	Department of Water and Sanitation
GIS	Geographic Information System
GSAA	Gamagara Spatial Action Area
IDP	Integrated Development Plan
KHSAA	Kalahari Spatial Action Area
KSAA	Karoo Spatial Action Area
LM	Local Municipality
NCDOE	Northern Cape Department of Education
NCDOH	Northern Cape Department of Health





NCPS	Northern Cape Planning System
NCPT	Northern Cape Provincial Treasury
NSDF	National Spatial Development Framework
OTP	Office of the Premier
PSC	Project Steering Committee
PSDF	Provincial Spatial Development Framework
RSAA	Rural Spatial Action Area
RSDF	Regional Spatial Development Framework
SACN	South African Cities Network
SALGA	South African Local Government Association
SALT	Southern African Large Telescope
SARAO	South African Radio Astronomy Observatory
SEZ	Special Economic Zone
SKA	Square Kilometre Array
SPLUMA	Spatial Planning and Land Use Management Act 16 of 2013
VSAA	Vaalharts Spatial Action Area
WTW	Water Treatment Works
WWTW	Waste Water Treatment Works





1 INTRODUCTION

The Northern Cape Provincial Spatial Development Framework (PSDF) serves as the strategic guiding document for the spatial development of the Northern Cape Province. Its core purpose is to provide a spatial vision and policy direction that aligns with both provincial and national development strategies. The PSDF aims to promote sustainable land use, balanced socio-economic development, and environmental stewardship across the province. The framework is informed by the Spatial Planning and Land Use Management Act (SPLUMA) of 2013, which mandates provinces to develop spatial frameworks that align with key principles of spatial justice, sustainability, and efficiency.

The PSDF is not a static document but a dynamic framework that must adapt to evolving socio-economic and environmental conditions. This requires periodic reviews to ensure that the PSDF remains relevant and aligned with updated data, policies, and development objectives. The review process is crucial for addressing spatial inequalities, optimizing resource use, and enhancing the overall quality of life for Northern Cape residents.

WHAT IS REQUIRED FOR THE PSDF?

According to SPLUMA and the Northern Cape Provincial Growth and Development Plan (PGDP), the PSDF must:

- **Spatial Vision and Goals:** Articulate a clear spatial vision for the province, outlining desired land use patterns and development objectives.
- **Alignment with National and Provincial Strategies:** The PSDF must align with national frameworks like the National Spatial Development Framework (NSDF) and provincial growth strategies, such as the PGDP and Vision 2040.
- **Sustainable Development:** Promote land use practices that ensure environmental sustainability, social equity, and economic resilience.

- **Guidance for Public and Private Investment:** The PSDF should provide clarity and certainty on where public infrastructure investment will be targeted, thereby reducing business risks and encouraging private-sector development.
- **Coordination of Spatial Plans:** The PSDF must ensure that provincial spatial planning aligns with local municipal SDFs and sectoral plans, creating an integrated spatial development environment.
- **Implementation and Monitoring:** Define clear strategies for implementing the spatial vision and provide tools for ongoing monitoring and evaluation to assess progress.

WHY THE REVIEW IS NEEDED

The review of the PSDF is necessary to address several critical factors:

- **Compliance with SPLUMA:** SPLUMA requires provincial SDFs to be reviewed and updated every five years to ensure alignment with new legislation, policies, and spatial principles.
- **Outdated Data:** The current PSDF was developed using outdated 2011 Census data. The review allows for the integration of more recent data, including the 2021 Census, to ensure that planning is based on current socio-economic trends and population dynamics.
- **New Development Trends:** Significant changes in the Northern Cape's economic landscape, such as the rise of renewable energy projects, the growing importance of agri-processing, and increased mining activity, necessitate adjustments to the spatial framework to capitalize on these developments.
- **Environmental Sustainability:** With increasing concerns around climate change, water scarcity, and biodiversity loss, the review provides an opportunity to strengthen environmental sustainability measures in spatial planning.
- **Alignment with Updated National Policies:** The review ensures that the PSDF aligns with newer policies such as the National Spatial Development Framework (NSDF) of 2022, the Karoo Regional Spatial





Development Framework, and emerging initiatives like the Green Hydrogen Strategy.

- **Improved Governance and Coordination:** The review seeks to enhance governance structures and the coordination of spatial plans across provincial, district, and local levels. By doing so, it ensures better alignment and implementation of spatial strategies across all spheres of government.
- **Economic and Social Challenges:** The review is needed to address persistent socio-economic challenges in the Northern Cape, such as high unemployment, poor access to services, and regional disparities. The updated PSDF provides spatial solutions to these challenges, guiding the equitable distribution of resources and services.

Table 1 outlines the key objectives of the Northern Cape Provincial Spatial Development Framework (NC PSDF), emphasizing critical focus areas such as economic growth, social equity, environmental sustainability, and governance. These objectives guide the province's spatial planning efforts to ensure alignment with national frameworks and foster sustainable development across various sectors.

Table 1: Key Objectives of the NC PSDF

OBJECTIVE	KEY FOCUS
Alignment with Frameworks	Ensure alignment with NDP, NSDF, and Northern Cape Vision 2040.
Economic Growth and Sectoral Development	Promote sustainable growth in agriculture, mining, tourism, renewable energy, and manufacturing.
Social Equity and Inclusion	Address spatial inequalities, improve access to services, and promote land reform.
Environmental Sustainability and Climate Resilience	Integrate climate adaptation and protect natural resources.
Integrated Infrastructure Development	Improve infrastructure in transport, energy, water, and ICT.
Rural Development and Land Reform	Support rural development, land reform, and food security.

Governance and Institutional Strengthening	Strengthen governance and align spatial policies across all government levels.
--	--

Table 2 presents the key reference documents considered in the development of the NC PSDF. These documents provide strategic direction, legislative frameworks, and sectoral plans that shape the province's approach to spatial planning, infrastructure, and climate resilience.

Table 2: Key Reference Documents considered

DOCUMENT	RELEVANCE TO PSDF
National Development Plan (NDP)	Provides long-term strategic goals for economic and spatial transformation.
National Spatial Development Framework (NSDF)	Guides national spatial priorities, including development corridors and nodes.
Northern Cape Vision 2040	Outlines the province's long-term vision for sustainable growth.
Northern Cape Provincial Growth and Development Plan (PGDP)	Highlights economic and social development priorities for the province.
Spatial Planning and Land Use Management Act (SPLUMA)	Sets the legal framework for spatial planning and land use management.
Regional Spatial Development Frameworks (RSDFs)	Provides district-level spatial guidance to ensure integrated development.
Northern Cape Climate Change Response Plan	Focuses on climate resilience and sustainability strategies for spatial planning.
Integrated Transport Master Plan (ITMP)	Supports the development of transport infrastructure and mobility improvements.
Green Hydrogen Strategy	Guides renewable energy and green hydrogen project development.





A QUICK GUIDE TOWARDS USING THE PSDF

PSDF BUILD UP AND RESEARCH

STATUS QUO

BASELINE:

- Analysis : Biophysical Environment, Socio-Economic Environment, Build Environment
- Spatial Synthesis
- SWOT, PEST Analysis

SECTOR ANALYSIS

SECTOR ANALYSIS:

- Analysis on each of the various Sector Departments
- Unpacking the PGDP Drivers and its spatial relevance to the PSDF Review

PSDF GUIDE

INTRODUCTION

SETTING THE SCENE

- Using the PSDF
- Key Objectives
- Contextual Analysis



Enhancing our Future

NCPS

ENABLING THE PSDF

- Project Management
- Spatial Management System

DRAFT PSDF

SPATIAL PROPOSALS

SPATIAL DRIVERS:

- Spatial Reflection of the PGDP Drivers
- Spatial targeting
- Provincial Spatial Action Areas
- Spatial Outcomes

LAND USE MANAGEMENT

SPATIAL PLANNING CATEGORIES

- SPC Objectives and Guidelines
- Land Use Matrix



PSDF SUPPORT

TOOLKITS

SUPPORTING TOOLS:

- Bio Regional Planning
- SDF and Land Use Guidelines
- Social Facility Standards
- Monitoring and Evaluation Tools
- Provincial Terminology

IMPLEMENTATION FRAMEWORK

GOVERNANCE:

- Spatial Governance
- Intergovernmental Structuring
- Capital Investment Framework
- Spatial Targeting
- SDF Alignment and Coordination

<http://www.northern-cape.gov.za/index.php/psdf>





1.1 THE NORTHERN CAPE IN CONTEXT



The Northern Cape is the largest and most sparsely populated province in South Africa, located in the northwestern part of the country. Globally, it is situated in the southern hemisphere on the African continent, specifically in southern Africa. It shares borders with Namibia and Botswana, positioning it as a key gateway for trade within the Southern African Development Community (SADC). Nationally, the Northern Cape borders the Western Cape, Eastern Cape, Free State, and North West provinces, with Kimberley as its capital. The province is divided into five districts: Namakwa, ZF Mgcawu, Pixley Ka Seme, Frances Baard, and John Taolo Gaetsewe, which are further subdivided into 26 local municipalities. The province's vast, arid landscape supports a blend of rural and urban development, with major economic activities centered around mining, agriculture, and tourism.





1.2 KEY DEMOGRAPHICS

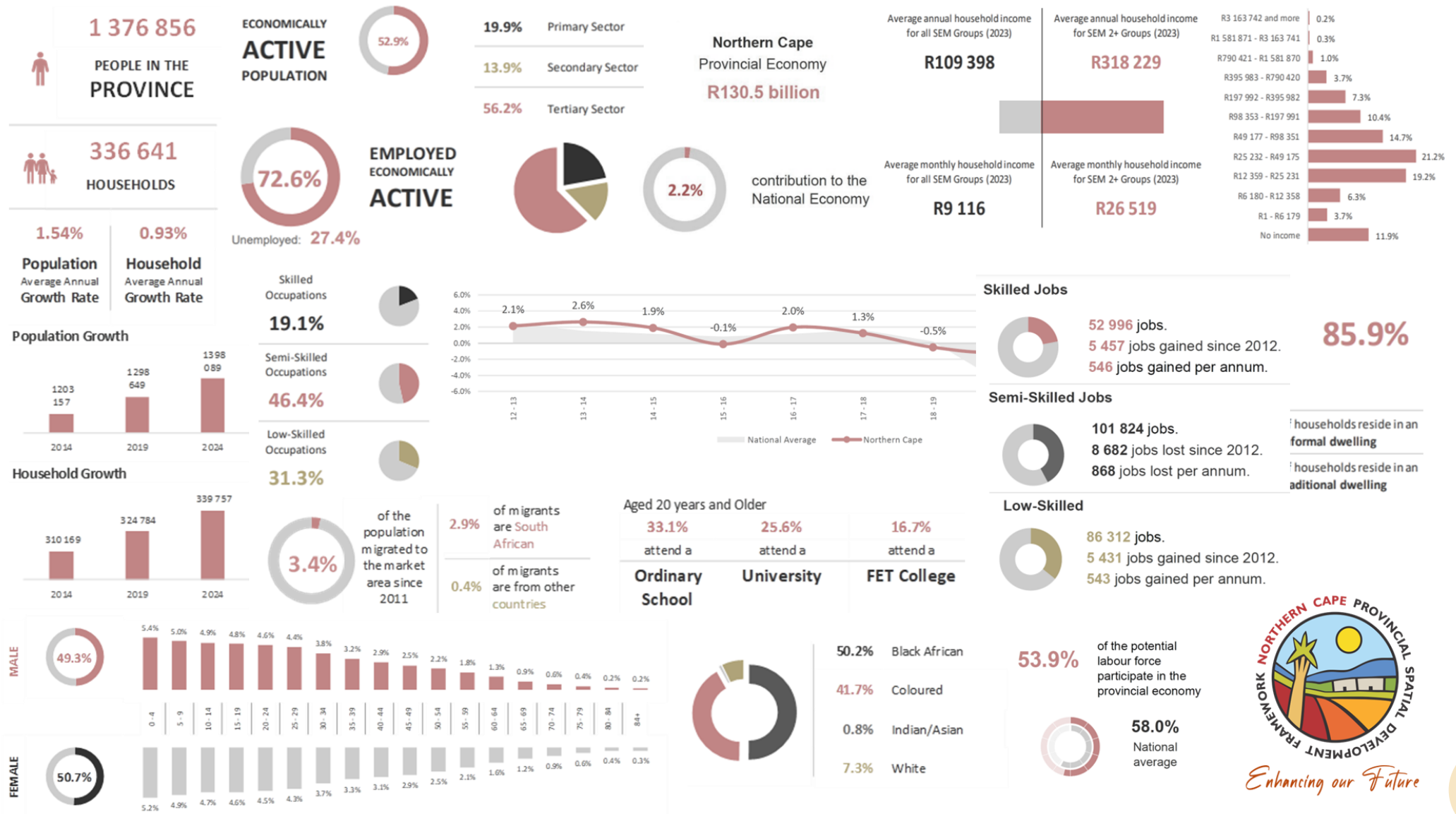


Figure 1: Key Provincial Demographics (also refer to the Status Quo Report for more detail), Stats SA 2022, Quantec, 2024)





1.3 KEY FINDINGS OF THE STATUS QUO ANALYSIS

REFER TO ANNEXURE A FOR MORE DETAIL

The PSDF review was initiated to ensure alignment with SPLUMA (2013) and to update spatial planning strategies in line with the latest national, provincial, and municipal policies. The review addresses key spatial development challenges and seeks to promote sustainable growth and development.

Table 3: Key requirements of the PSDF Review considered

KEY REQUIREMENT	DESCRIPTION	AREAS REVIEWED
Alignment with PGDP, NDP, and NSDF	Ensure alignment with national and provincial growth frameworks.	All major provincial and regional planning documents were reviewed for consistency.
Application of SPLUMA Principles	Implement SPLUMA's five principles: spatial justice, spatial sustainability, efficiency, resilience, and good governance.	Reviewed the application of SPLUMA in both urban and rural areas across all municipalities.
Sectoral Involvement	Involve various provincial departments in the development process.	A review of sectoral plans such as agriculture, energy, and infrastructure.
Data Update	Update outdated data from the 2011 Census to reflect more recent statistics.	Reviewed 2021 Census data, provincial statistics, and socio-economic trends.
Monitoring Tools	Introduce monitoring and evaluation tools to track the implementation of PSDF strategies.	Added new tools for tracking spatial development progress and alignment with the PSDF.
Coordination with Municipal SDFs	Ensure that the PSDF aligns with local municipal spatial frameworks for consistency.	Reviewed all municipal SDFs for SPLUMA compliance and alignment.

GOVERNANCE STRUCTURE AND SPATIAL PLANNING FRAMEWORK

LEVEL	RESPONSIBILITIES	AREAS REVIEWED
Provincial	Overseeing and coordinating spatial frameworks with national plans and setting long-term visions.	Governance structure of the Office of the Premier and how it coordinates with provincial departments.
District	Ensuring integration between municipal frameworks and implementing strategic regional projects.	The role of district municipalities in coordinating between local and provincial plans.
Local Municipal	Focused on local land use management and addressing immediate community needs.	Review of land use management practices at the local level for SPLUMA compliance.

SPATIAL CHALLENGES AND OPPORTUNITIES

The review identified the following key spatial challenges and opportunities across different areas:

AREA	CHALLENGES	OPPORTUNITIES	AREAS REVIEWED
Human Settlements	Inefficient land use, lack of affordable housing.	Potential for sustainable growth in human settlements through focused planning.	Reviewed settlement growth patterns and future demands for housing and infrastructure.
Infrastructure	Aging infrastructure, unequal access to services.	Infrastructure upgrades, integration of	Reviewed existing infrastructure and identified





		renewable energy systems.	critical areas for upgrades.
Mobility & Connectivity	Poor transport networks, underdeveloped rural roads.	Development of transport corridors and improved mobility.	Reviewed transport infrastructure, especially the need for road and rail corridor development.
Resource Management	Water scarcity, land degradation.	Water conservation and land rehabilitation initiatives.	Reviewed natural resource management plans, including water and biodiversity conservation.

LAND USE MANAGEMENT FRAMEWORK

SPC	CATEGORY	DESCRIPTION	AREAS REVIEWED
A	Core Natural Areas	Conservation and biodiversity protection, low-impact land uses only.	Reviewed areas designated as Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).
B	Buffer Areas	Surrounding core areas with controlled development and ecological considerations.	Buffer zones reviewed for alignment with conservation efforts and sustainable development.
C	Agricultural Areas	Support sustainable farming and agri-business, limit urban sprawl.	Reviewed agricultural zones for protection of high-value farmland and agri-processing potential.

D	Urban and Rural Development Areas	Promote sustainable settlement growth and economic activities.	Reviewed urban edges and growth areas for rural and urban settlements.
E	Industrial Areas	Encourage industrial development in designated zones.	Reviewed industrial development zones, particularly in mining and energy sectors.
F	Surface Infrastructure	Provide guidelines for infrastructure development such as roads, water, and energy.	Reviewed key infrastructure corridors for alignment with provincial needs.

SPATIAL VISION AND GOALS

SPATIAL GOALS	DESCRIPTION	AREAS REVIEWED
Inclusive Growth	Ensure equitable access to services, resources, and infrastructure for all communities.	Reviewed how spatial policies can address inequalities in service provision.
Sustainable Development	Promote environmentally sound land use and sustainable energy practices.	Reviewed renewable energy potential and alignment with environmental protection.
Economic Development	Strengthen key economic sectors like mining, agriculture, and tourism.	Reviewed economic development areas and their potential for industrial and tourism growth.





SPATIAL STRUCTURING ELEMENTS

ELEMENT	DESCRIPTION	AREAS REVIEWED
Growth Centres	Key urban nodes for economic activities and population growth.	Reviewed key urban growth nodes and their strategic roles in the provincial economy.
Development Corridors	Transport and trade routes to connect key economic areas.	Reviewed corridors such as the N14 and their potential for economic development.
Development Zones	Designated zones for agricultural, industrial, and urban expansion.	Reviewed zoning laws and the designation of zones for development.
Functional Regions	Regions with shared economic and spatial characteristics to improve governance.	Reviewed functional regions for coordination of services and spatial planning.

DEVELOPMENT SCENARIOS

SCENARIO	DESCRIPTION	AREAS REVIEWED
Scenario 1: Business as Usual	Continuation of current trends with no major changes.	Reviewed existing trends in land use and socio-economic conditions.
Scenario 2: Tempered Growth	Moderate growth with controlled expansion and minimal environmental impact.	Reviewed growth projections and their alignment with environmental goals.
Scenario 3: Optimistic Growth	Aggressive growth with high public and private sector investments.	Reviewed economic sectors primed for accelerated growth.
Scenario 4: Accelerated Growth	Rapid expansion driven by major infrastructure and development projects.	Reviewed major catalytic projects and infrastructure plans.

IMPLEMENTATION AND MONITORING

MONITORING TOOL	DESCRIPTION	AREAS REVIEWED
Spatial Performance Management	Track the effectiveness of land use and spatial planning decisions.	Reviewed tools for assessing performance of land use decisions.
SPLUMA Implementation	Ensure consistent application of SPLUMA principles across the province.	Reviewed the mechanisms for enforcing SPLUMA compliance at the municipal level.
Provincial Responsibilities	Define provincial roles in monitoring the implementation of the PSDF.	Reviewed roles and coordination between provincial departments and municipalities.

ALIGNMENT WITH SPLUMA

SPLUMA PRINCIPLE	APPLICATION IN PSDF	AREAS REVIEWED
Spatial Justice	Redress inequalities in access to services and land.	Reviewed areas where spatial inequalities persist, and the solutions proposed by the PSDF.
Sustainability	Promote environmentally sound land use and resource conservation.	Reviewed how sustainability goals are integrated into spatial planning.
Efficiency	Improve the use of land and infrastructure.	Reviewed strategies for optimizing infrastructure use and land development.





KEY AREAS OF REVIEW AND FINDINGS

AREA	KEY REVIEW FOCUS	FINDINGS
Municipal Spatial Development Frameworks	Alignment with SPLUMA and provincial plans.	All district and local municipalities were reviewed for SPLUMA compliance, and most have updated their SDFs.
Data Update	Incorporation of 2021 Census data and other statistical updates.	The document integrates more current data to ensure more accurate planning.
Economic Growth Areas	Identification of key economic zones and corridors.	Focus on sectors like mining, agri-processing, and renewable energy was highlighted.
Climate Change and Vulnerability	Addressing risks related to climate change.	Integrated climate change mitigation and adaptation strategies into spatial planning.





1.4 KEY FINDINGS OF THE SPATIAL AND SECTORAL ANALYSIS AND STAKEHOLDER CONSULTATION

REFER TO ANNEXURE B FOR MORE DETAIL

This section of the Northern Cape PSDF review focuses on spatial and sectoral analysis, stakeholder consultation, and alignment with the province's Vision 2040 and the National Development Plan (NDP). The review provides strategic insight into how spatial development must evolve to address both the challenges and opportunities of the Northern Cape province. It identifies key development priorities across economic, social, environmental, and governance sectors, ensuring that spatial planning aligns with sustainable development goals and government priorities.

1.4.1 DRIVER 1: ECONOMIC TRANSFORMATION, GROWTH, AND DEVELOPMENT

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
Agriculture and Agro-Processing	Expand agro-processing opportunities and support irrigation schemes (e.g., Vaalharts), small stock farming, and high-value aquaculture.	<ul style="list-style-type: none"> → Develop agro-processing hubs in key irrigation zones. → Increase investment in water-efficient irrigation technologies. → Support small-scale farmers and facilitate market access.
Mining and Mineral Beneficiation	Enhance mining output, particularly in John Taolo Gaetsewe, and develop value-adding beneficiation industries.	<ul style="list-style-type: none"> → Promote beneficiation strategies for key minerals. → Improve transport and infrastructure for mining regions → Attract investment for advanced mining technologies.

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
Tourism Market Development	Promote tourism clusters such as Namakwa's wildflowers, Pixley Ka Seme's space and culture, and Frances Baard's business and heritage offerings.	<ul style="list-style-type: none"> → Develop tourism routes and market niche experiences. → Support infrastructure for key tourism clusters (e.g., roads, accommodations). → Encourage investment in cultural and heritage tourism.
Energy Sector Development	Leverage solar and wind energy potential by focusing on renewable energy projects through the REIPPPP.	<ul style="list-style-type: none"> → Expand renewable energy generation capacity. → Improve grid connectivity and transmission infrastructure. → Explore new opportunities in wind energy, particularly in inland areas.
Manufacturing and Trade	Promote regional manufacturing and boost trade by aligning with the Industrial Policy Action Plan (IPAP).	<ul style="list-style-type: none"> → Establish industrial zones for manufacturing clusters. → Facilitate access to national and international markets for local products. → Build logistics infrastructure to support manufacturing growth.
Competitive Infrastructure Development	Address energy, water, transport, and ICT infrastructure deficits to support economic growth.	<ul style="list-style-type: none"> → Prioritize investment in water re-use and sanitation projects. → Improve road and rail networks for better connectivity. → Develop high-speed internet infrastructure to support economic hubs.
Innovation and Knowledge Economy	Establish the Northern Cape Information Society Strategy (NCISS) and roll out broadband to	<ul style="list-style-type: none"> → Implement the Northern Cape Broadband Roll-Out. → Invest in innovation hubs and skills development for tech industries.





PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
	support a knowledge-based economy.	→ Support ICT and broadband access in rural areas.

1.4.2 DRIVER 2: SOCIAL EQUITY AND HUMAN WELFARE

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
Quality Basic Education	Address educational infrastructure disparities, focusing on districts with the highest needs (e.g., John Taolo Gaetsewe).	→ Replace asbestos school structures. → Build new schools in underserved areas. → Improve access to technology and educational resources in rural areas.
Social Cohesion and Community Participation	Promote inclusive social development, leveraging sport, arts, and culture programs.	→ Implement community-based social cohesion programs. → Increase funding for cultural and sports initiatives in rural communities. → Encourage local participation in development programs.
Social Protection and Safety	Expand access to social services and improve policing infrastructure, particularly in rural and under-resourced areas.	→ Build new police stations in underserved areas. → Deploy mobile policing units to improve safety in remote communities. → Strengthen social welfare services and safety nets.
Health	Expand healthcare infrastructure, increase medical professionals, and improve access to services in rural areas.	→ Recruit and retain more healthcare professionals, particularly in rural districts. → Build new healthcare facilities where needed.

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
		→ Improve access to healthcare services through mobile clinics.
Rural Development, Land Reform, and Food Security	Implement land reform programs to increase ownership among disadvantaged individuals and ensure food security through rural development.	→ Accelerate land redistribution and reform. → Support rural agricultural development with funding and infrastructure. → Increase access to basic services in rural communities.

1.4.3 DRIVER 3: ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
Improve Environmental Sustainability	Protect critical biodiversity areas (CBAs) and ensure sustainable resource use, while mitigating climate change impacts.	→ Develop environmental protection programs for CBAs. → Implement water conservation and sustainable land-use practices. → Strengthen climate change adaptation plans.
Sustainable Human Settlements	Promote integrated and sustainable urban and rural settlements to improve housing and service delivery.	→ Address the housing backlog, especially in rural areas. → Prioritize mixed-use, sustainable settlement designs. → Promote densification and sustainable infrastructure in urban areas.



1.4.4 DRIVER 4: ACCOUNTABLE AND EFFECTIVE GOVERNANCE

PATHS TO PROSPERITY	KEY OUTCOME	KEY ACTIONS TO ADDRESS
Integrated Development Planning	Strengthen coordination between provincial, district, and local levels to ensure better alignment of spatial and development plans.	<ul style="list-style-type: none">→ Align IDPs and SDFs with the PSDF and national frameworks (e.g., NSDF).→ Implement spatial governance models to improve intergovernmental collaboration.→ Ensure SPLUMA compliance at all government levels.
Institutional Strengthening	Improve institutional capacity to manage spatial development and implement PSDF priorities effectively.	<ul style="list-style-type: none">→ Build institutional capacity through training and skills development.→ Enhance monitoring and evaluation systems for PSDF implementation.→ Strengthen public participation in spatial planning.

1.4.5 SUMMARY OF KEY ACTIONS TO ADDRESS ACROSS ALL DRIVERS

- **Sectoral Investment:** Ensure that investments are targeted toward high-priority sectors like agriculture, mining, renewable energy, tourism, and manufacturing.
- **Infrastructure Development:** Improve critical infrastructure for transport, energy, water, ICT, and social services to support inclusive economic growth.

- **Social Equity:** Address disparities in education, healthcare, and rural development to improve living conditions, particularly for vulnerable populations in remote areas.
- **Environmental Protection:** Develop climate change adaptation and mitigation plans, protect biodiversity, and promote sustainable human settlements.
- **Governance and Institutional Alignment:** Strengthen the capacity of government institutions to align spatial policies with national and provincial strategies and improve intergovernmental coordination.





2 THE PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK

2.1 INTRODUCTION

This phase of the Northern Cape Provincial Spatial Development Framework (PSDF) outlines and describes the spatial proposals designed to guide the province's sustainable development. The purpose of this document is to translate policy directives into actionable plans that promote responsible growth, ensuring that economic, environmental, and social objectives are balanced. By incorporating principles such as planetary boundaries and bio-regional planning, these proposals aim to create a resilient and prosperous Northern Cape that meets the needs of its people while preserving its unique natural and cultural heritage.

ALSO REFER TO TOOLKIT 6 –
BIOREGIONAL PLANNING
CONTENTS

2.1.1 ACTUALIZING STRATEGIC MANDATES

Actualizing strategic mandates involves the implementation and execution of established goals and objectives set forth by the national and provincial executive councils. This process includes the translation of high-level strategic visions into actionable plans, policies, and practices that drive progress and achieve desired outcomes. By actualizing these mandates, entities can ensure that their strategic initiatives are effectively carried out, aligning resources and efforts to meet their overarching mission and vision.

2.1.1.1 THE SPATIAL VISION OF THE NORTHERN CAPE

The spatial vision of the Northern Cape is shaped and reinforced by a range of policy directives aimed at promoting sustainable growth and transformation. These directives are designed to ensure that development

within the region is balanced and equitable, taking into account the long-term needs of the economy, the environment, and local communities. By adhering to these policies, the Northern Cape aims to create a harmonious and prosperous region where all stakeholders can thrive.

2.1.1.2 ROLE OF THE NORTHERN CAPE PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK (PSDF)

The Northern Cape Provincial Spatial Development Framework (PSDF) plays a crucial role in providing the spatial context necessary for fulfilling strategic mandates. It outlines how land and resources should be utilized to maximize benefits, ensuring that economic development, environmental preservation, and community well-being are all taken into consideration. The PSDF serves as a blueprint for sustainable development, guiding decision-making processes to optimize the use of resources and support the growth and prosperity of the region.

2.1.1.3 KEY DIRECTIVES INFORMING SPATIAL PRIORITIES

For the Provincial Spatial Development Framework (PSDF) to effectively fulfil its mandate, it must align with and represent the strategic intents of various national and regional plans, the most prominent being the:

- **National Development Plan (NDP):** A comprehensive framework aimed at eliminating poverty and reducing inequality by 2030.
- **National Spatial Development Framework (NSDF):** A strategic guide to coordinate the spatial aspects of development across different regions.
- **Medium-Term Development Plan (MTDP), previously Medium-Term Strategic Framework (MTSF):** A plan that outlines the government's priorities and medium-term targets.
- **Karoo Regional Spatial Development Framework (RSDF):** A regional plan focused on the unique needs and opportunities within the Karoo area.





- **National and Provincial Sector Plans:** Detailed strategies for specific sectors such as infrastructure, housing, and environmental management.

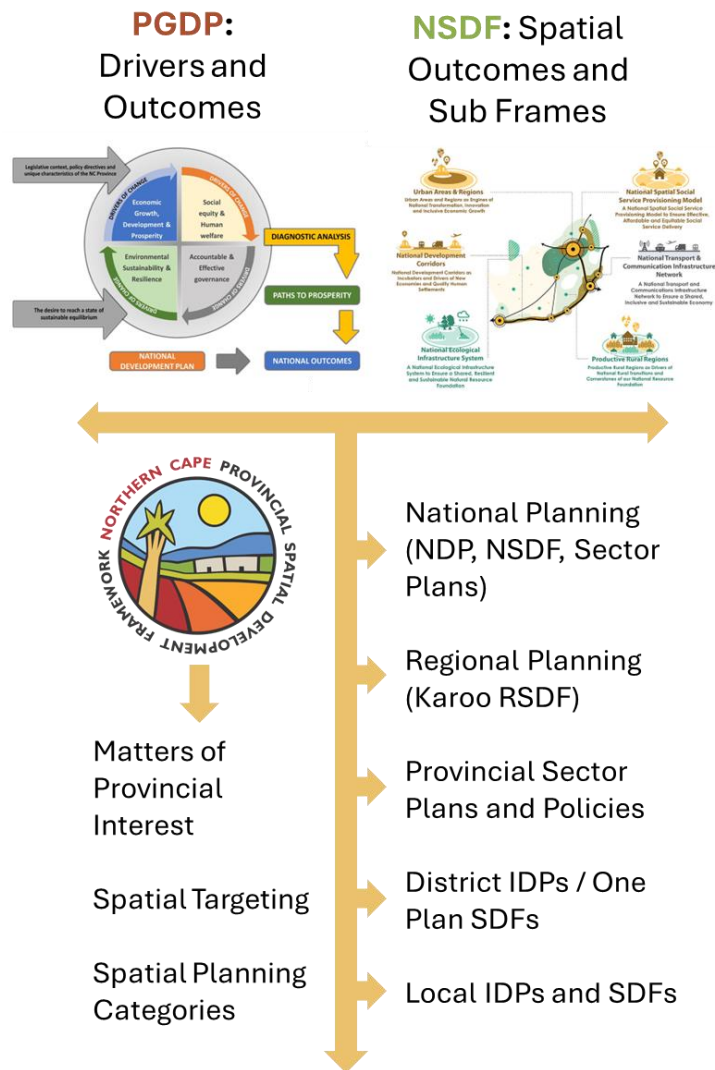


Figure 2: PSDF Alignment with key policy directives

By integrating these directives, the PSDF ensures a cohesive approach to spatial planning, aligning provincial efforts with broader national objectives to foster sustainable and inclusive growth.

2.1.2 KEY AREAS OF CONCERN

The Northern Cape Province faces multifaceted challenges and opportunities that necessitate comprehensive spatial planning. Building upon previous sectoral analyses and the current state of affairs, it is imperative to delve into specific key issues to ensure effective spatial planning for the province's sustainable development.

2.1.2.1 DRIVER 1: ECONOMIC GROWTH, DEVELOPMENT, AND PROSPERITY

Agriculture:

- Balancing the demands of agricultural activities with other land uses to ensure sustainable resource allocation.
- Encouraging a broader range of agricultural activities to enhance economic resilience and reduce dependence on a single crop or livestock type.
- Promoting development in rural areas to improve living conditions, infrastructure, and access to services for rural communities.

Renewable Energy:

- Exploring the potential of green hydrogen as a renewable energy source and integrating it into the energy mix.
- Expanding renewable energy sources beyond solar and wind to include other technologies and innovations.
- Enhancing infrastructure to support the growth of the renewable energy sector, including grid capacity and energy storage solutions.
- Leveraging technology and innovation to optimize renewable energy production, distribution, and consumption.

Spatial Planning:





- Developing industrial corridors to stimulate economic growth and create job opportunities.
- Revitalizing small towns and urban areas to enhance their economic vitality and improve living conditions.

Transportation:

- Enhancing rail infrastructure to support the efficient movement of freight and reduce road congestion.
- Improving public transportation systems to provide accessible, affordable, and reliable mobility options for residents.
- Identifying and upgrading priority roads to facilitate efficient transportation and connectivity within the province.

Economic Development:

- Establishing Special Economic Zones (SEZs) to attract investment, promote industrialization, and stimulate economic growth.
- Implementing high-impact projects that drive economic development and create job opportunities.
- Developing and maintaining infrastructure to support economic activities and improve competitiveness.
- Harnessing innovation and information and communication technologies (ICT) to enhance productivity and economic diversification.
- Promoting tourism as a key economic sector by developing attractions, improving services, and marketing the province as a destination.

2.1.2.2 DRIVER 2: SOCIAL EQUITY AND HUMAN WELFARE

Rural Development:

- Promoting development in rural areas to improve living conditions, infrastructure, and access to services for rural communities.

Spatial Planning:

- Ensuring spatial planning efforts are aligned with the Provincial Growth and Development Plan (PGDP) to support coherent and strategic development.
- Identifying and prioritizing areas for development interventions to achieve balanced and equitable growth.
- Promoting the development of functional regions that leverage local strengths and resources for economic and social development.

Social Services:

- Ensuring the provision of essential social services, such as education, healthcare, and social protection, across all communities.
- Promoting the development of socio-economic services to improve the quality of life and economic opportunities for residents.
- Planning and developing human settlements that are inclusive, sustainable, and resilient.

2.1.2.3 DRIVER 3: ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

Climate Change:

- Addressing the impacts of climate change on agriculture, including droughts, floods, and changing weather patterns, and developing strategies to increase resilience.

Renewable Energy:

- Developing renewable energy solutions that help mitigate the effects of climate change while ensuring energy security.
- Enhancing infrastructure to support the growth of the renewable energy sector, including grid capacity and energy storage solutions.

Spatial Planning:

- Implementing robust spatial planning frameworks that guide sustainable land use and development.
- Revitalizing small towns and urban areas to enhance their economic vitality and improve living conditions.





Transportation:

- Promoting non-motorized transport options, such as cycling and walking, to reduce carbon emissions and improve public health.

Natural Resources Management:

- Addressing the environmental and social impacts of fracking while exploring its potential benefits for energy production.
- Managing conflicts between different land uses, such as agriculture, mining, and conservation, to ensure sustainable development.
- Leveraging the economic potential of marine resources while ensuring their sustainable use and conservation.
- Developing strategies to mitigate and adapt to the impacts of climate change on natural resources and ecosystems.

2.1.2.4 DRIVER 4: ACCOUNTABLE AND EFFECTIVE GOVERNANCE

Spatial Planning:

- Strengthening governance mechanisms to ensure transparent, inclusive, and effective spatial planning processes.

Cross-Border Trade and Cooperation:

- Enhancing trade and economic cooperation with neighbouring provinces and countries to boost economic growth and development.
- Ensuring the alignment of spatial plans and policies across different sectors and government levels to achieve coherent and coordinated development.

2.1.3 APPROACH TO STRATEGIC PROPOSALS

The Spatial Proposals aim to implement policy directives through sustainable development methods. These methods ensure responsible development that takes into account potential environmental and social impacts. By adhering to sustainable practices, the Northern Cape province

can foster growth that is not only economically viable but also environmentally sound and socially inclusive.

The following concepts form the basis of the spatial proposals of the Northern Cape PSDF:

Planetary Boundaries: Planetary boundaries set the limits of ecological systems and their self-regulation capacity. Planning proposals must respect these limits to avoid irreversible ecosystem damage, which could harm the province's social, economic, and environmental well-being. Staying within these boundaries is essential for maintaining a healthy and resilient natural environment.

Bio-Regional Planning: Bio-regional planning Prioritises the unique ecological, cultural, and social characteristics of specific regions. By considering an area's natural boundaries and resources, it creates sustainable development strategies tailored to local needs. This approach ensures development harmonizes with the region's landscapes, promoting long-term sustainability.

By integrating policy directives, respecting planetary boundaries, and adopting bio-regional planning approaches, the Northern Cape Provincial Spatial Development Framework (PSDF) will ensure that sustainable practices are employed. This integration will unlock development potential and provide bold solutions to the challenges currently hindering the province's growth.





2.1.3.1 PROPOSAL COMPOSITION

The section provides a background for the use of the key components used to articulate the developmental strategies for the Northern Cape Province.

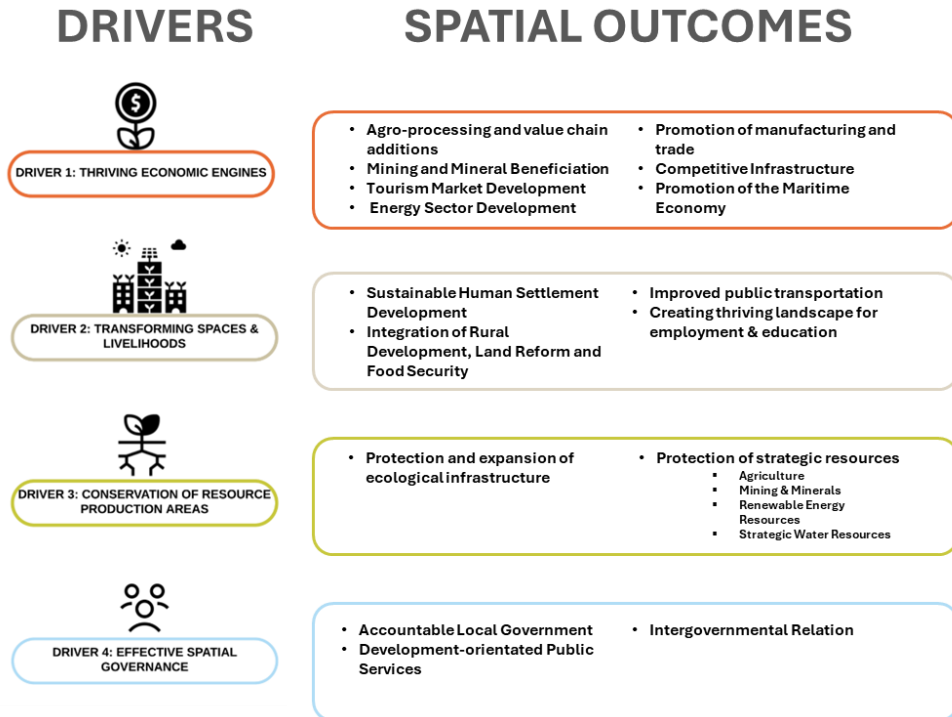


Figure 3: PSDF Driver and Spatial Outcome Composition

2.1.3.1.1 Development Drivers

These align with the drivers outlined in the Provincial Growth and Development Plan (PGDP), emphasizing the factors necessary to propel sustainable development forward. Development drivers are strategies designed to unlock the full potential of the province's developmental state. They serve as mechanisms to coordinate public and private investments, aligning with the spatial vision outlined in the PSDF. These drivers facilitate change and the achievement of specific objectives in spatial planning and development.

2.1.3.1.2 Spatial Outcomes

Spatial outcomes correspond to the desired results of development initiatives specified in the PGDP. They focus on achieving key spatial and governance elements that propel sustainable development initiatives forward. These outcomes are pivotal in reaching the strategic goals of development drivers, providing concise interventions to promote economic growth and social well-being. Spatial outcomes encompass various infrastructure, socio-economic, environmental, and policy-oriented components that shape decision-making processes.

Spatial outcomes complement development drivers by identifying the ideal locations for interventions linked to each lever and associated driver. Spatial targeting enables the prioritization and categorization of investments, ensuring efficient utilization of funds according to the specific needs and opportunities of the province.

2.1.3.1.3 Action Areas

Action areas provide the spatial targets or ideal locations of development opportunities, high-impact projects and interventions aligned with national and provincial strategic objectives. These action areas are critical for implementing the spatial proposals effectively, ensuring that strategic interventions are focused on areas with the highest potential for positive impact.

By focusing on these key concepts—development drivers, spatial outcomes, and action areas—the Northern Cape PSDF aims to create a comprehensive framework for sustainable development. This approach will ensure that the province can meet its current needs while preserving resources and opportunities for future generations.





2.2 STRATEGIC PROPOSALS

2.2.1 DRIVER 1: THRIVING ECONOMIC ENGINES

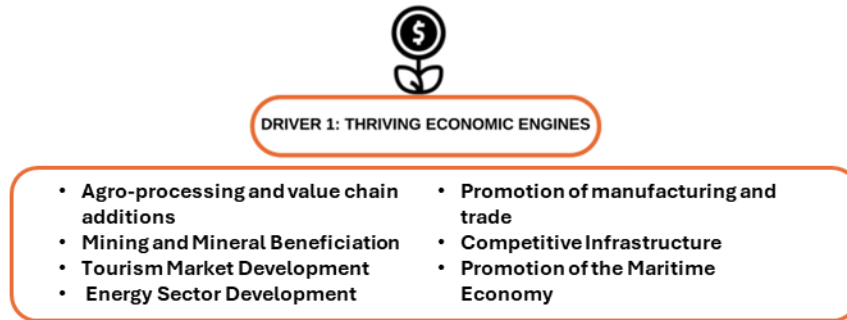


Figure 4: Driver 1 Composition

DRIVER 1 aims to ensure economic growth that will lead to increased development and prosperity for the people of the Northern Cape Province, a conscious effort is required to change the economic trajectory of the province. To achieve this, the following developmental sectors have been identified by the

2.2.1.1 STRENGTHENED AGRICULTURE AND AGRO-PROCESSING

To bolster agricultural productivity and value addition through targeted investments, supporting both existing commercial farming and agrarian transformation in rural areas, aligning with the Comprehensive Rural Development Programme (CRDP).

The following key components are required to support the spatial outcome of strengthened agriculture and agro-processing:

- **Agri-parks Development:** Revitalise the agri-parks programme, focussing on Farmer Production Support Units (FPSUs), following the guidelines of District Rural Development Plans (DRDPs). These will

serve as centres for agricultural production, processing, and marketing, enhancing local value chains and market access.

- **Support for Land Reform Program:** Provide comprehensive support to emerging farmers through the Land Reform Programme. This includes facilitating access to land, providing technical assistance, and integrating these farmers into existing agricultural value chains.
- **Infrastructure and Equipment:** Invest in modern farming equipment and irrigation systems to enhance productivity and sustainability. Priority should be given to areas with significant agricultural potential and existing commercial farming activities.
- **Educational and Training Facilities:** Establish and strengthen agricultural training facilities, including colleges and vocational training centres, to build local capacity and skills in modern farming techniques, agribusiness management, and agro-processing. These facilities should also focus on artisan and other skills training relevant to the agricultural sector.
- **Local Fresh Produce Markets:** Develop small local fresh produce markets to support local farmers, enhance food security, and create opportunities for small-scale agro-industries. These markets should act as hubs for the sale and distribution of locally produced agricultural goods.
- **Agro-Industry Development:** Encourage the establishment of small-scale agro-industries focusing on the processing and packaging of local products.

ACTION AREAS:

- **Karoo Spatial Action Area:** Promote innovative and smart agricultural practices to enhance agricultural productivity.
- **Land reform:** Concentrate investment and support to projects located within the priority agro-processing areas.
- **Agriparks:** Leverage the Agripark program to maximize the potential of commodities and their value chains by lowering input costs and assisting in the preparation of products for both local and international





markets. Focus investment in Agriparks and value chain developments within the **priority agro-processing** areas.

- **High-Potential Agricultural Land:** Safeguard high-potential agricultural land to secure the economic foundation of the agricultural industry.
- **Vaalharts & Douglas-Kakamas Spatial Action Areas:** Enhance the performance of irrigation schemes and pivot irrigation agriculture by prioritizing water quality through cross-border coordination with the North West and Free State provinces to reduce pollution in the Orange and Vaal River systems.
- **Fresh Produce Markets:** Develop, upgrade, and support local fresh produce markets in key regional anchors and rural service centres.
- **Logistics & Industrial Parks:** Use logistics and industrial parks to set up cold storage and processing facilities along major trade routes and key regional development areas.



Spatial Outcome Agriculture Development

Processing Infrastructure

- Agri Hubs
- Abattoirs
- Farmer Production Support Unit
- Silos

Diversification Opportunities

- Prepared Foodstuff & Beverages
- Vegetables, Fruits & Grain Products
- Livestock & Animal Projects

Agricultural Support & Trade Infrastructure

- National Highways
- Main / Provincial Roads
- Railway Lines
- Ring Roads
- Dams
- Border Posts
- Harbour
- Main Airports

Agriculture Resource Base

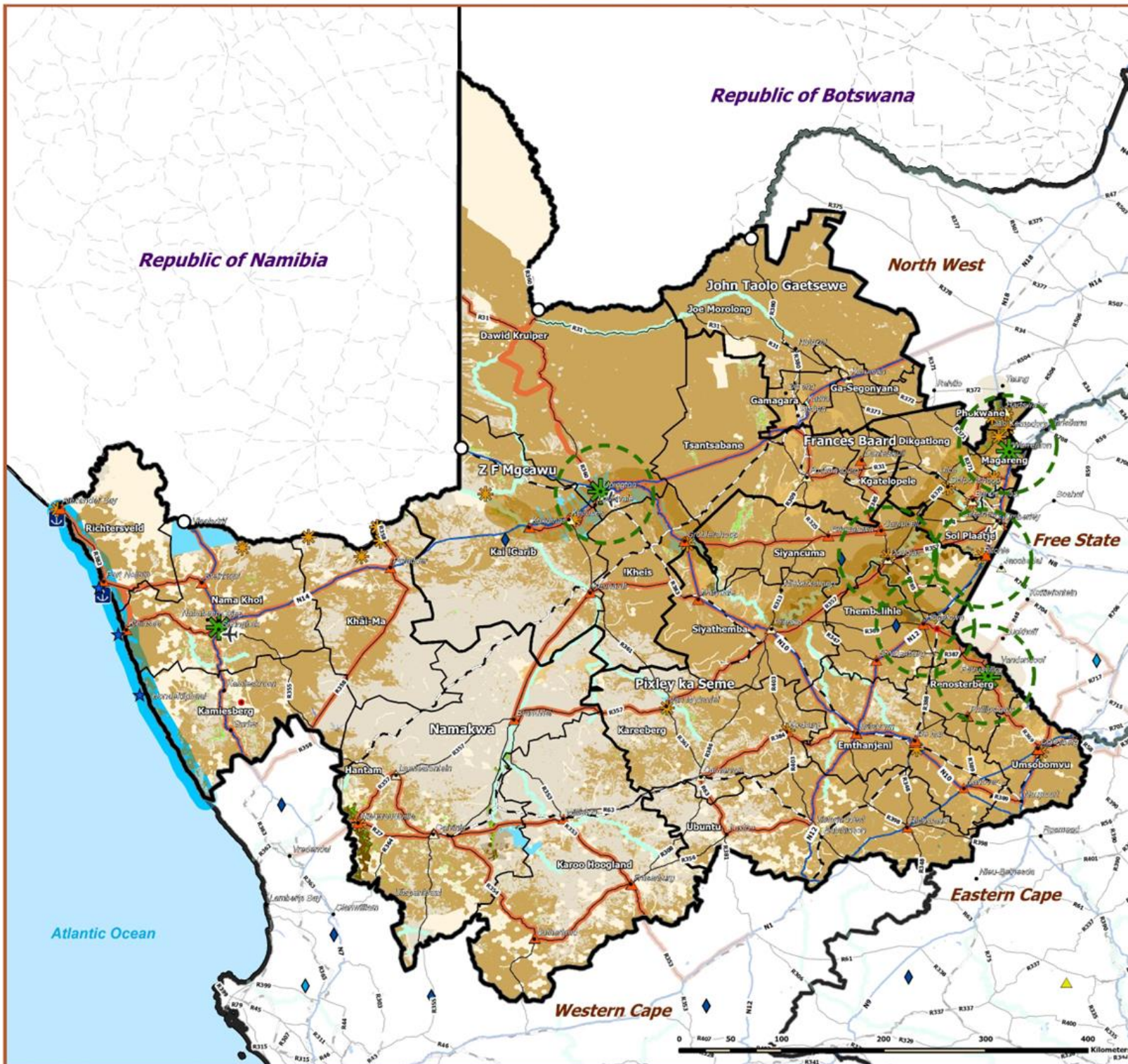
- Main Rivers
- Protected Agricultural Areas
- Fishing & Mariculture Corridor

Agriculture Type Distribution

- Pivot Irrigation
- Fruit & Nut Region
- Poultry Region
- Sub Protein Region
- Main Protein Region
- Priority Agriculture Intervention Areas

Map 1: Agriculture
Development and Value
Chain Additions

Source: SANBI, NSDF, DALRRD, DESTEA, DEA,
DFFE, DWS





2.2.1.2 MINING AND MINERAL BENEFICIATION

The Mining Development Management Strategy aims to limit the negative long-term effects associated with mining development, by prohibiting the establishment of new mining towns while providing supporting infrastructure and development guidance to existing mining activity.

The following spatial guidelines are essential in ensuring that spatial outcomes are achieved by improving the sustainability and longevity of mining activities.

Guidelines for the provision of housing for mines and subsequent supporting infrastructure:

- **Location:** Housing and services provided by mining corporations must be in existing towns or settlements and align with municipal spatial development frameworks (SDFs) and integrated development plans (IDPs).
- **Infrastructure Access:** Infrastructure (electricity, water, etc.) must benefit the entire community, not just mining operations.
- **Water Use:** Prioritise water reuse over access to virgin groundwater resources.

Spatial guidelines for social and capital contributions:

- **Capital contributions:** Ensure social responsibility initiatives and other funding stemming from mining activities are channelled and aligned to the PSDF, KRSDF, DSDF, MSDF and IDP localities and priorities.
- **Skills Development:** Implement training programs and establish training to enhance local employment opportunities in mining and related industries.
- **ICT Infrastructure:** Develop and employ ICT infrastructure to support mining operations and community needs.
- **Environmental Protection:** Enforce regulations to protect water resources and comply with environmental legislation.

- **Health and Safety:** Adhere to stringent health and safety regulations and include climate change adaptation strategies as increasing temperatures will impact the safety of mining activities.

ACTION AREAS:

- **Iron & Manganese Rail Lines:** Mitigate the impact of manganese and iron particle pollution along the railway routes and ensure railway lines are maintained and upgraded as necessary.
- **R31 route:** Upgrade and maintain the R31 route to support road-based transport of mining machinery throughout the Gamagara Spatial Action Area (GSAA).
- **Gamagara Spatial Action Area (GSAA):** Promote the beneficiation of ferrous minerals by promoting steel manufacturing within the GSAA.
- **Integrated Jewellery hubs:** Investigate the potential of integrated jewellery hubs in Kimberley and Springbok with a focus on cutting and processing stones for jewellery purposes.
- **Artisanal mining licence priority areas:** To increase the longevity of mining activities and decrease the impact of mining closure, artisanal mining licenses and operations are to be promoted within the Artisanal Mining Priority Areas.
- **Potential mining areas:** Investigate the viability of mining activities within the potential mining areas identified within the KRSDF.
- **Namakwa SEZ:** Support the beneficiation of non-ferrous minerals within the Namakwa SEZ.
- **Oil and Gas exploration zone:** Investigate the opportunity of gas and oil extraction where the environmental impact can be maintained and limited.

ALSO REFER TO TOOLKIT 3 – MINING AND MINING TOWNS



Spatial Outcome Mining and Mineral Benefaction

Mining Distribution

- Oil & Gas Exploration
- Active Mining Areas

Mining Application Status

- Granted
- Issued

Mining Support & Trade Infrastructure

- Harbour
- Transnet Terminals
- Manganese Rail
- Iron Ore Railway Line
- National Highways
- Main / Provincial Roads
- Railway Lines

Mining Commodity

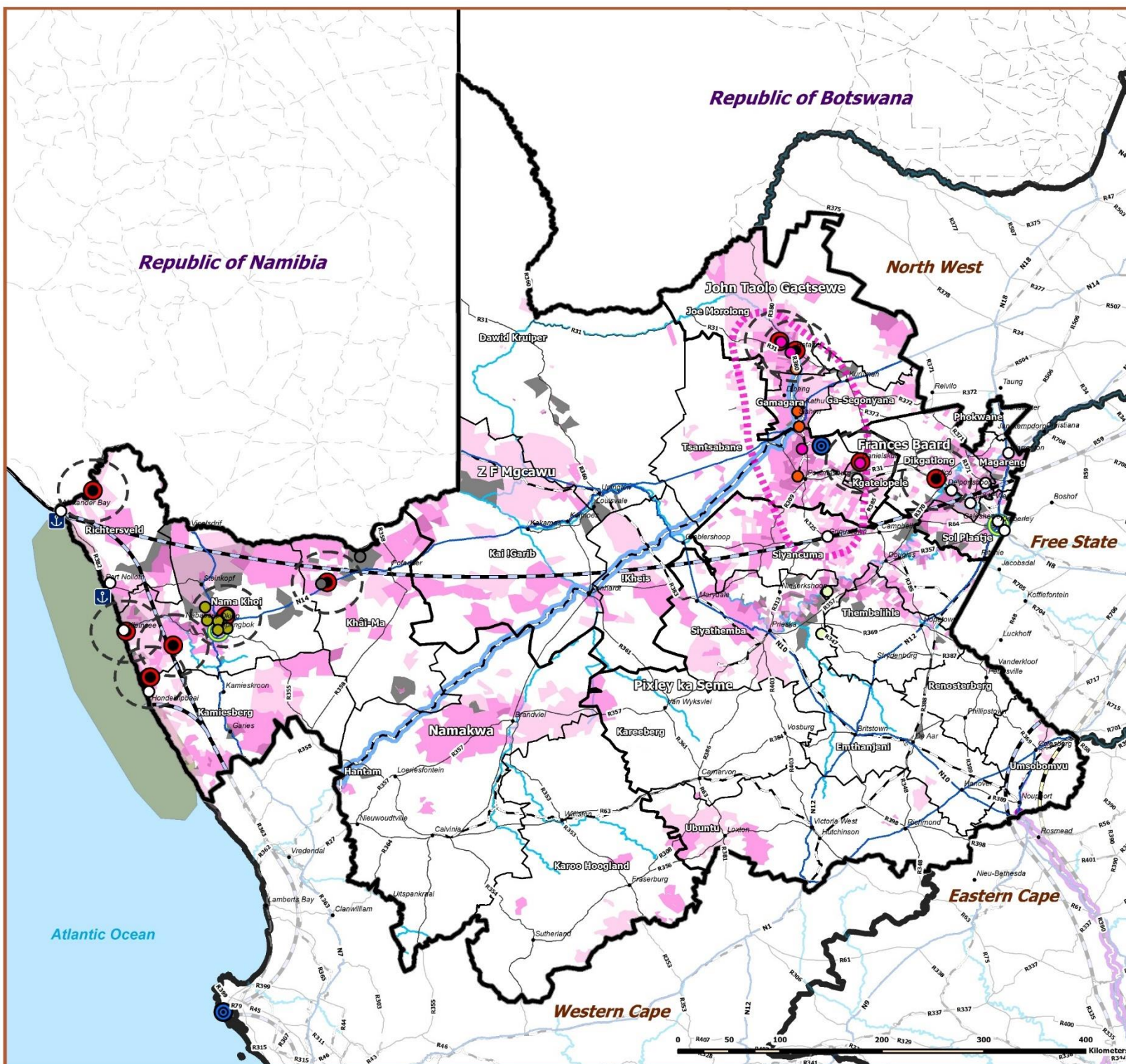
- Copper
- Diamonds
- Iron Ore
- Lead-Zinc
- Lime
- Manganese

Proposed Action Areas

- Distressed Mining Towns
- Ferrous Mineral Benefaction
- Proposed Jewellery Hubs
- Artisanal Mining Licence Priority Area
- Proposed Gas Pipelines
- Proposed Liquid Fuel Pipeline

Map 2: Mining and Mineral
benefaction

Source: SANBI, NSDF, DALRRD, DESTEA, DEA,
DFFE, DWS





2.2.1.3 TOURISM MARKET DEVELOPMENT

ALSO REFER TO TOOLKIT 9 – TOURISM DEVELOPMENT GUIDELINES

Tourism nodes represent growth centres with potential for agri-tourism, eco-tourism, botanical tourism, marine and coastal tourism, heritage tourism, and adventure areas. Development within these areas should avoid negatively impacting the tourism industry. Similarly, the resource base for tourism must be protected and expanded, with specific reference to nature, clear night sky and heritage-based tourism.

To realise the spatial outcome of improved tourism development the following spatial and land use directives apply to tourism nodes and their resource base:

- Target investment in tourism-related activities in designated areas and strengthen connections between tourism towns and nearby eco-tourism attractions.
- Prevent developments that could reduce their functional value or compromise their unique qualities.
- Preserve ecologically sensitive areas of the province.
- Expand Tourism Branding: Promote unique branding of tourism areas and routes within the province.
- Protect Rural Character: Prevent detrimental developments, ensuring the functional and visual quality of rural areas. Create strong economic connections between rural nodes and surrounding eco-tourism opportunities.
- Identify and protect vulnerable heritage and cultural sites.

Key activities identified per tourism sector:

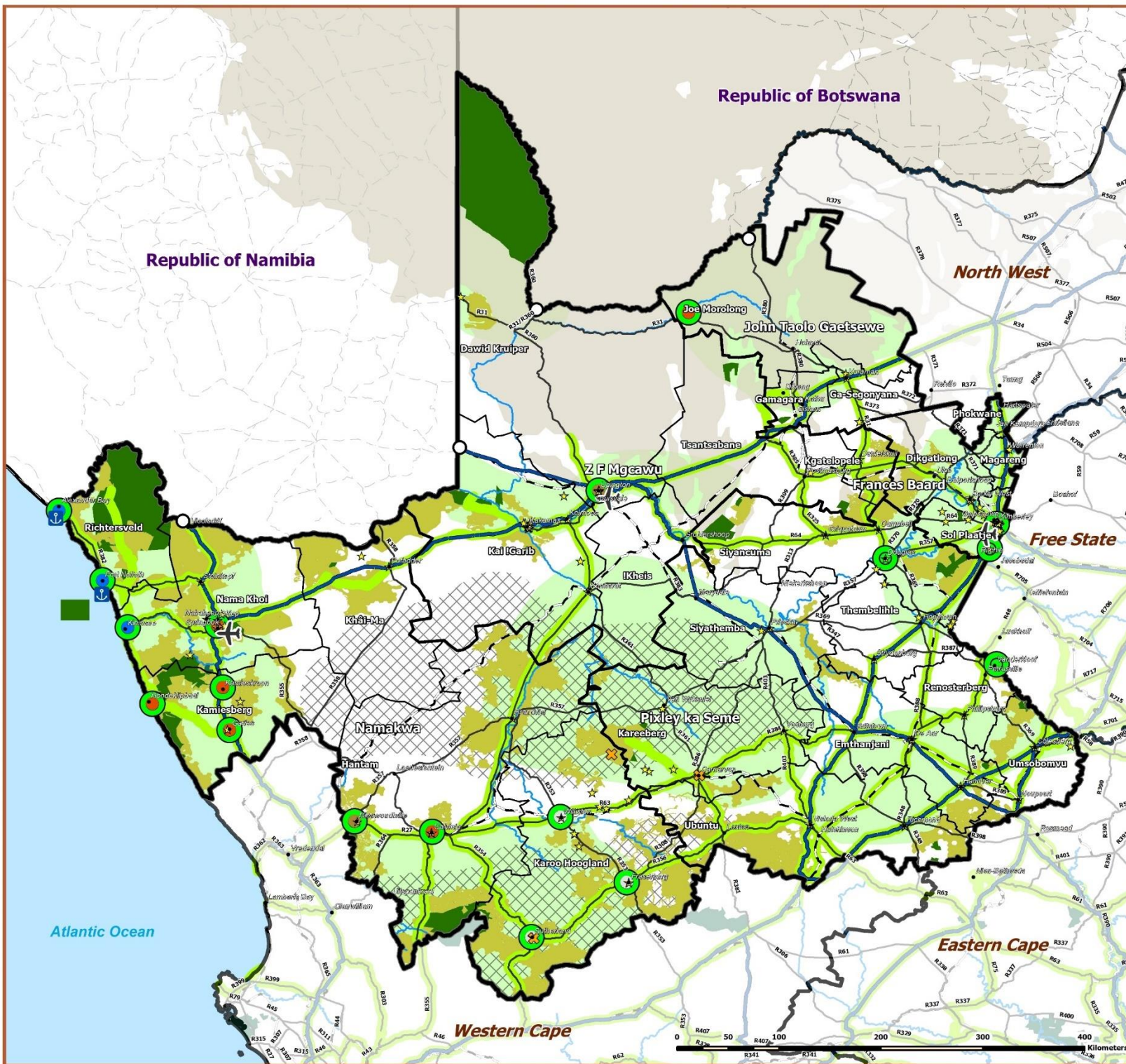
- **Nature-based Tourism:** Enhance opportunities for wildlife viewing, nature conservation, and eco-tourism.
- **Clear Night Sky Tourism:** Capitalize on the region's clear night skies for astronomy-based tourism activities
- **Adventure and Activity Tourism:** Promote hiking, mountain biking, and water sports.

- **Resort and Sports Tourism:** Develop, upgrade, and maintain resorts and sports facilities.
- **Agri-tourism:** Attract tourists interested in farm stays and agricultural experiences, such as wine tasting and fruit picking.
- **Conference and Event Tourism:** Upgrade and maintain conference facilities and promote events.
- **Cultural Heritage and Industrial Tourism:** Maintain and upgrade facilities near existing tourist attractions and major transportation routes.
- **Education and Training:** Establish training and education centres for tourism-related job opportunities.

ACTION AREAS:

- **Tourism nodes:** Ensure heritage sites within nodes are protected, maintained and upgraded where needed. Promote the establishment of tourism-related and supporting industries by promoting land use applications related to entertainment, catering and accommodation.
- **Tourism resource base:** Promote the expansion of nature reserves, maintenance of heritage sites and protection of unique environmental qualities relating to biomes, water quality of rivers and dams, and clear night skies. Promote the establishment of tourism-related activities along tourism resources within the tourism clusters and National Protected Areas Expansion Strategy (NPAES) Focus areas.
- **Tourism support infrastructure:** Support, expand and maintain key tourism routes and airports. Support the upgrading of border posts to enhance ease of tourist movements between Namibia and the Northern Cape.
- **Adventure Hubs:** Support the development of Adventure Hubs in key tourism hotspots along the Orange and Vaal Rivers, West Coast Region, and towards the Kalahari, initiatives should focus on enhancing infrastructure for easier access, developing facilities for adventure sports and eco-tourism, preserving natural and heritage sites, and launching targeted marketing campaigns.





Spatial Outcome Tourism Market Development

Tourism Resource Base

- Border Posts
- ✕ Technology Tourism
- ☆ Heritage Sites
- NPAES Focus Area
- National Protected Areas
- Tourism Clusters
- Kalahari Basin

Clear Night Skies

- ◇ Highest
- ◇ Medium-High

Tourism Nodes

- Tourism Routes
- Tourism Node

Tourism Node Type

- Agri-Tourism
- Clear night skies
- Heritage based Tourism
- Maritime Tourism
- Nature-based

Tourism Support Infrastructure

- National Highways
- Main / Provincial Roads
- Railway Lines
- ✈ Main Airports

Map 3: Tourism Market
Development



Source: SANBI, NSDF, DALRRD, DESTEA, DEA,
DFFE, DWS, Karoo RSDf





2.2.1.4 DEVELOPMENT OF THE ENERGY SECTOR

The energy sector is a key driver of economic growth and job creation in the Northern Cape. Maintaining momentum in this sector ensures ongoing investment, infrastructure development, and employment opportunities. The following objectives apply to the energy spatial outcome:

- Ensure the continued focus on renewable energy and innovative technologies helps minimize environmental impacts, contributing to the fight against climate change and promoting sustainable development.
- By advancing renewable energy and green hydrogen initiatives, the Northern Cape can position itself as a leader in energy innovation, attracting further investment and expertise to the region.
- Promote Renewable Energy Schemes: Support the development of large-scale renewable energy supply schemes to diversify domestic energy supplies, reduce reliance on energy imports, and minimize environmental impacts.
- Support the enhancement of the Vanderkloof Power Station: Improve the efficiency of Eskom's power station at Vanderkloof.
- Reinforce Transmission Network: Construct a 400kV transmission power line from Ferrum Substation (near Kathu/Sishen) to Garona Substation (near Groblershoop) to strengthen the existing network and ensure reliable electricity supply in the Northern Cape. Due to the national electricity supply shortage, commissioning additional plants, especially renewable energy projects, is a high priority.
- Develop Innovative Energy Technologies: Implement new energy technologies to provide reliable, sustainable, and affordable energy services. This will support sustainable economic growth and development by securing supply, offering energy services, addressing climate change, reducing air pollution, and achieving sustainable development goals. Joint planning between local and provincial governments and the private sector is essential to seize these opportunities and create synergies.

- Promote Green Hydrogen Production: Support the development of green hydrogen production facilities at Boegoebaai Harbour. Leveraging renewable energy sources for hydrogen production can significantly reduce greenhouse gas emissions and position the province as a leader in sustainable energy innovation. The strategic location of Boegoebaai Harbour offers excellent potential for export opportunities, boosting the local economy and creating jobs. Collaboration between government entities and private sectors will be crucial in realizing this vision and establishing a robust green hydrogen industry






ACTION AREAS:

- **Boegoebaai Harbour:** Support the development of the Boegoebaai Harbour and green hydrogen-related land uses.
- **Eskom HV line expansions:** Support the upgrading of Eskom bulk infrastructure, as a catalyst for the further expansion of the renewable energy sector.
- **Renewable Energy Development Zones (REDZs):** Support the applications of renewable energy projects within the REDZ, and where the capacity of substations allows for grid integration.
- **Wind Energy:** Prioritise the establishment of wind energy projects within the priority investment area for wind generation.
- **Namakwa Special Economic Zone:** Support Ammonia and green hydrogen-related developments within the Namakwa SEZ, along with mining and mineral beneficiation.
- **Prieska Power Reserve:** Support the development of green hydrogen and ammonia production and related supporting infrastructure.
- **Gas pipelines:** Support the development of inter-provincial gas pipelines to support the transportation of hydrogen.




Spatial Outcome Energy Sector Development

Renewable Energy Footprint

-  Hydropower Plant
-  Solar Energy Plant
-  Wind Energy Plant
-  Bio Energy Potential
-  Renewable Energy Projects
-  Wind Farming Potential Areas





Proposed Action Area

-  Renewable Energy Development Zone
-  Wind Energy Generation
-  Eskom Planned Lines
-  Eskom Expansion Projects
-  Proposed Gas Pipelines
-  Proposed Liquid Fuel Pipeline
-  SEZ/IDZ
-  Prieska Power Reserve

Nuclear Energy Footprint

-  Waste Site
-  Screened Nuclear Sites

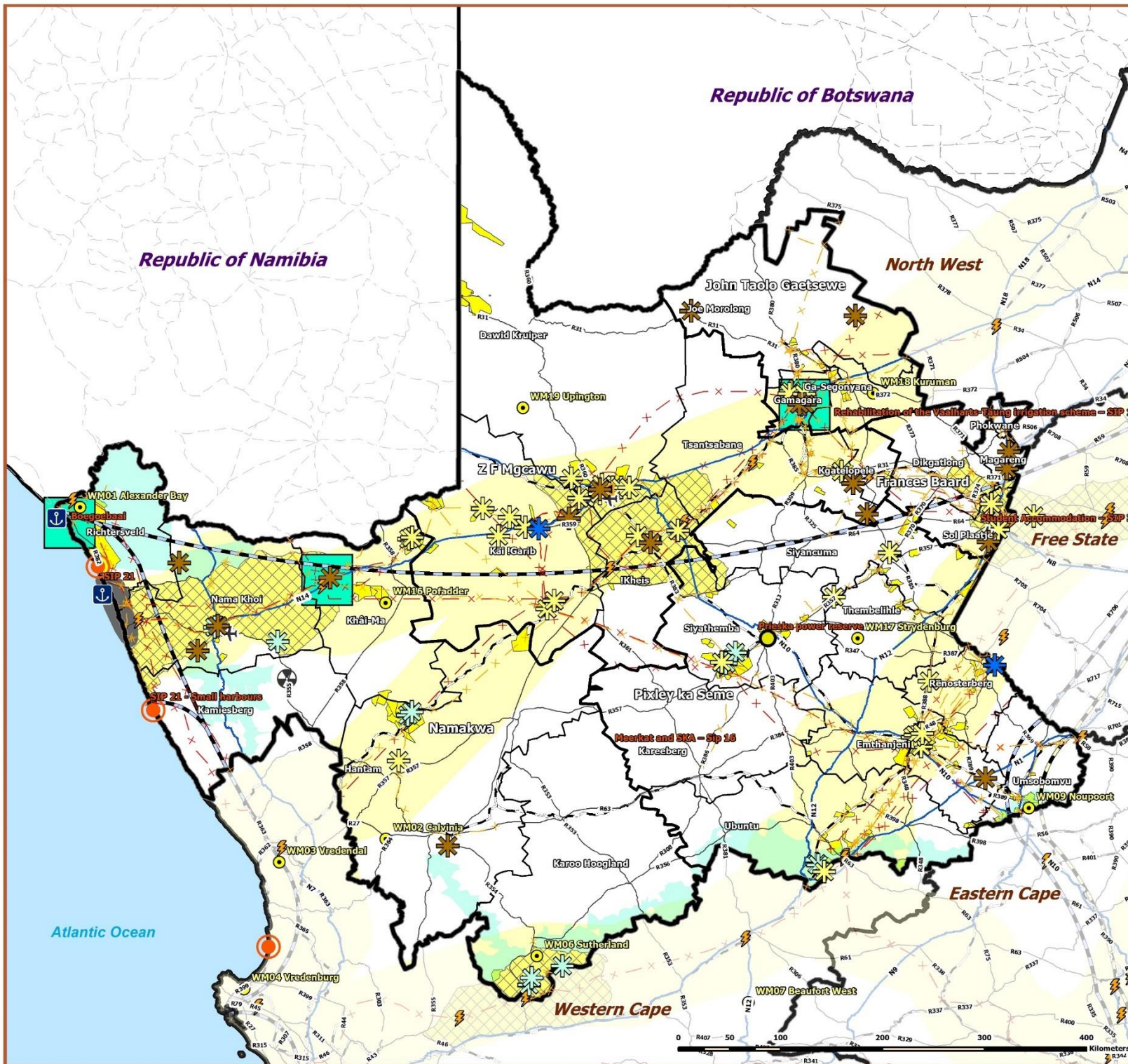
Support Infrastructure

-  Main Transmission Substations
-  National Highways
-  Main / Provincial Roads
-  Eskom HV Lines

Map 4: Energy Sector Development



Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.2.1.5 CAPITALISE ON MANUFACTURING AND TRADE

To promote and support manufacturing and trade industries it's crucial to capitalise on the existing agglomeration of economic activities within the province by:

- **Strengthening Urban Areas and Nodes:** Consolidate economic activity at strategic locations within development corridors.
- **Concentrating investment:** Focus investment in areas with potential for sustainable economic development within development corridors.
- **Enhancing Accessibility:** Improve road, rail, and air accessibility within the region and sub-region, providing regional access to economic opportunities for all communities.

To further support trade the following routes and infrastructure must be prioritised for maintenance, upgrading and expansion to achieve the spatial outcome of effective exploitation of trade and manufacturing:

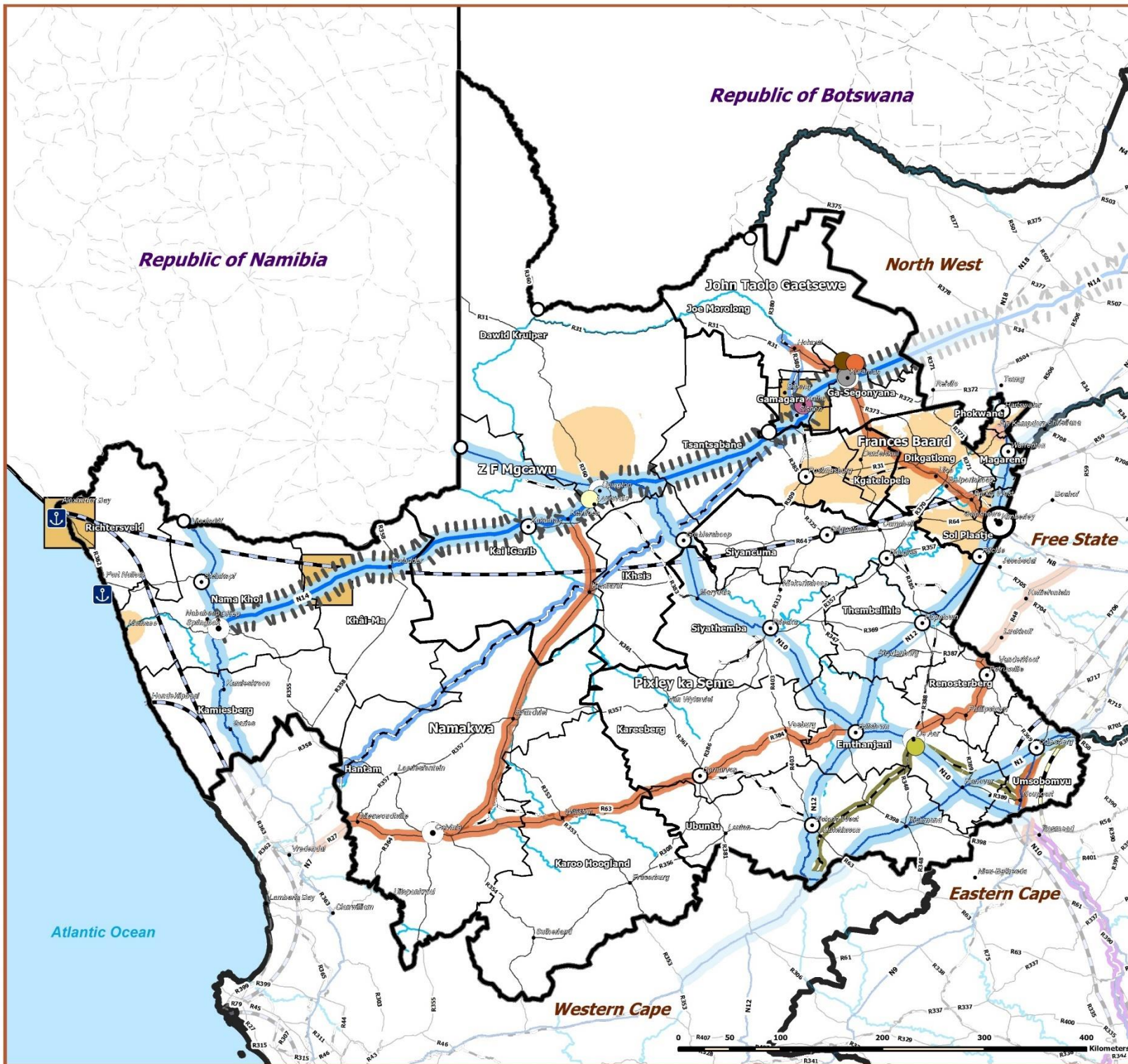
- Upgrade and enhance Namibian border post infrastructure with a focus on biohazard controls to ensure the safety of traded goods entering the South African borders.
- Support the establishment of small harbours to promote trade on small and large scales.
- Enhancing the national and regional connectivity to the N1 route linking Gauteng Mega City Region, Cape Town Mega City Region Greater Bloemfontein/ Botshabelo Urban Region Via the N12, N14, N10.
- Providing regional accessibility to the Regional Growth Centres of Beaufort West and De Aar is supported by the Johannesburg-Cape Town railway line.
- N7 route linking Cape Town Mega City Region and Namibia which provides regional accessibility to the Regional Growth Centre of Springbok
- N8 linking the Urban Regions of Kimberley and Greater Bloemfontein/Botshabelo with Upington Regional Growth Centre; -

- N10 linking Upington and De Aar Regional Growth Centres with Namibia and Nelson Mandela Bay Import / Export Node supported by the Gqeberha- East London- De Aar- (Hotazel) – Namibia railway lines.
- N12 linking Gauteng Mega City Region Kimberley Urban Region and Potchefstroom Regional Growth Centres.
- N14 links the Gauteng Mega City Region with the Springbok, Upington, Kuruman and Vryburg Regional Growth Centres.
- Promote the establishment of logistics facilities along the national routes within regional growth centres.
- Upgrade and elevate the routes consisting of:
 - The R63 link between Carnarvon (SARAO) to Calvinia Regional Growth Centre
 - R27 link between Calvinia to Van Rynsdorp (N7)
 - The R384 link between Carnarvon to Britstown
 - The R373 (Kimberley-Koopmansfontein) - R31 (Koopmansfontein –Hotazel) route is supported by the Hotazel- Kimberley- Bloemfontein railway line.

ACTION AREAS:

- **Industrial Parks:** Support the establishment of logistic parks and cargo hubs in regional development anchors and rural service centres along the N14 corridor.
- **Namakwa SEZ:** Utilise SEZ to improve investor confidence and enhance international competitiveness and trade of non-ferrous minerals.
- **Boegoebaai port and green energy hub:** Support the role of the Boegoebaai port in positioning the Northern Cape as a major competitor and exporting green hydrogen and ammonia.
- **Border posts:** Ensure border posts are well maintained and upgraded as necessary to enhance trade with Southern African Development Community (SADC) nations.
- **Priority investment areas:** Apart from existing investment priorities, the following have been proposed 1) Industrial Park; 2) Proposed metal fabrication and 3) Renewable energy support manufacturing hub.





Spatial Outcome Manufacturing and Trade

Manufacturing & Trade GVA

- High
- Very High

Supporting Infrastructure

- Border Posts
- Harbour
- National Highways
- Main / Provincial Roads
- Railway Lines
- Priority Rail Upgrade
- Iron Ore Railway Line
- Manganese Rail
- Priority Upgrade and Maintenance
- National Trade Spines

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres

Proposed Action Areas

Manufacturing & Trade Projects

- Cargo Hub
- Industrial Hub
- Logistics and Electronics Hub
- Mining Textiles Manufacturing
- Proposed Industrial Park
- Proposed Metal Fabrication
- Renewable Energy Manufacturing
- SEZ/IDZ
- Industrial Corridor

Map 5: Manufacturing and Trade Support



Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.2.1.6 COMPETITIVE INFRASTRUCTURE DEVELOPMENT

Competitive infrastructure underpins the success of the economic sector by creating a viable baseline on which social and economic development can be based.

Water use and access underpins most economic sectors within the Northern Cape, as this is a drought-prone region with increased risk levels stemming from climate change it's crucial to protect and enhance bulk water resources and distribution networks.

- **Increase Water Storage Capacity:** Increase water security and socioeconomic development availability by increasing water storage capacity.
- **Provide Water Resources Infrastructure:** Deliver water resources infrastructure to communities that have lagged, as part of the Comprehensive Rural Development Programme (CRDP).
- **Curb Unlawful Water Use:** Implement a strategy to prevent illegal water use.
- **Ensure Reliable Water Supply:** Maintain a reliable supply of water from bulk water resources infrastructure within acceptable risk parameters to meet the sustainable demand of the province. Secure funding to implement, operate, and maintain bulk raw water resources efficiently by strategically managing risks and assets.
- **Facilitate Water Conservation and Management:** Promote water conservation and demand management throughout the province.
- **Accelerate Access to Water Infrastructure:** Expedite the provision of access to water infrastructure for communities.
- **Regulate Water Value Chain:** Develop, implement, monitor, and review regulations across the water value chain in accordance with the National Water Act 38 of 1998, the Water Services Act 108 of 1997, and the National Water and Sanitation Master Plan of 2018.
- **Promote Water Reuse:** Encourage the reuse of water rather than exploring untapped water resources.

- **Protect Critical Water Resources:** Safeguard critical water resources through projects like the planned Vioolsdrift Dam, focusing on water balancing and management.
- **Manage and Expand Infrastructure:** Manage demand and maintain, expand, and refocus the infrastructure network to sustain bulk water supply and energy distribution.
- The quality and accessibility of basic infrastructure play a major role in investor confidence thus it is also crucial to ensure that municipalities with large industrial complexes safeguard basic service delivery by upgrading and maintaining water, sanitation and waste infrastructure.

ACTION AREAS:

- **Critical Water Treatment Works (WTW) & Wastewater Treatment Works (WWTW):** Prioritise municipal interventions in municipalities with critical and poor Blue and Green Drop ratings, to comply with DWS Blue and Green Drop recommendations
- **Water resource base:** Prioritise the rehabilitation of stressed catchment areas and promote inter-provincial coordination to improve the water quality of the Orange and Vaal River systems.
- **Water conservation:** prioritise water conservation strategic intervention in high rainfall variability and increased evaporation zones.
- **Resource risk:** Prioritise pollution mitigation measures for pollution risks located within strategic water resources.
- **Evaporation mitigation:** Promote the inclusion of evaporation adaptation strategies for district and municipal sector plans and bylaws for areas likely to experience an increase in high-temperature days.
- **Drought mitigation:** Promote the inclusion of drought adaptation strategies for district and municipal sector plans and bylaws for areas likely to experience a decrease in annual rainfall.



Spatial Outcome Competitive Infrastructure Development Water & Sanitation

Water Resource Base

- Dams
- Main Rivers
- Strategic Groundwater
- Stressed Catchments

Support Infrastructure

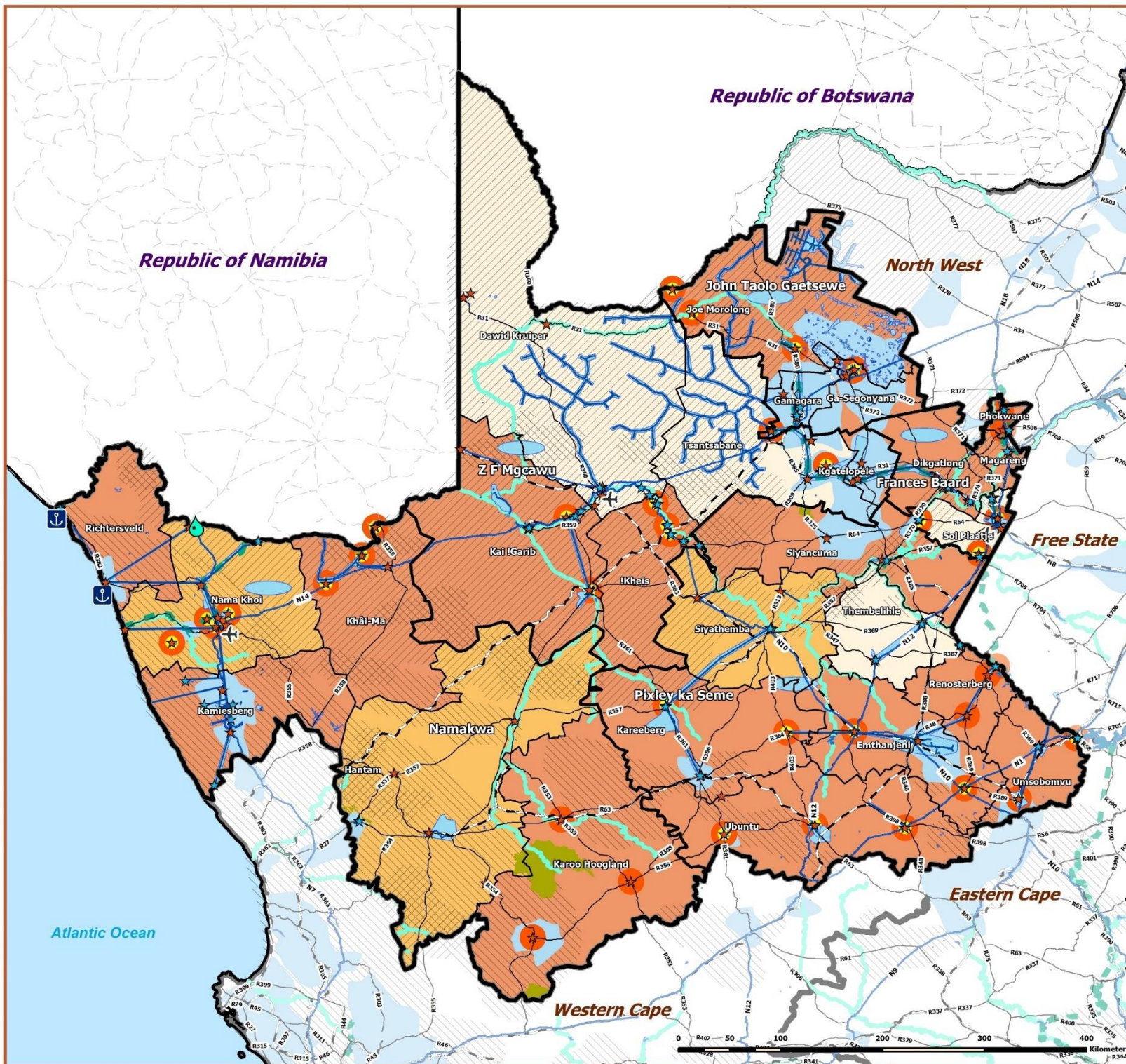
- Critical Risk WWTW
- WTW
- Bulk Water Pipelines
- Inter Basin Water Transfers
- Water Schemes
- WWTW
- WTW Blue Drop Status
- Critical
- Poor

Resource Risk

- Increase in very hot days 2021-2050
- Decrease in Annual Rainfall 2021-2050
- Pollution Risk: WWTW

Proposed Action Area

- Vioolsdrift Dam



Map 6: Competitive
Infrastructure
Development -Water and
Sanitation

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





The second pillar of economic and social development in the Northern Cape is accessibility to transportation, as the cost of transportation has a direct impact on industries' competitiveness and individuals' disposable income. Support in the following areas is required to improve the accessibility of transportation:

- Reinstate Passenger Rail Agency of South Africa's (PRASA) rail operations and infrastructure
- Improve the quality of public transport routes and infrastructure.
- The increasing prominence of electronic vehicles (EVs) requires investment in EV charging stations for freight and public transport vehicles to ensure the transportation options within the province remain competitive.

ICT accessibility provides the final layer of competitive infrastructure as accessibility to the Internet of Things allows for access to otherwise inaccessible markets, improved data availability and assessment opportunities as well as educational and economic opportunities. To promote the accessibility of ICT infrastructure the following aspects require strategic interventions:

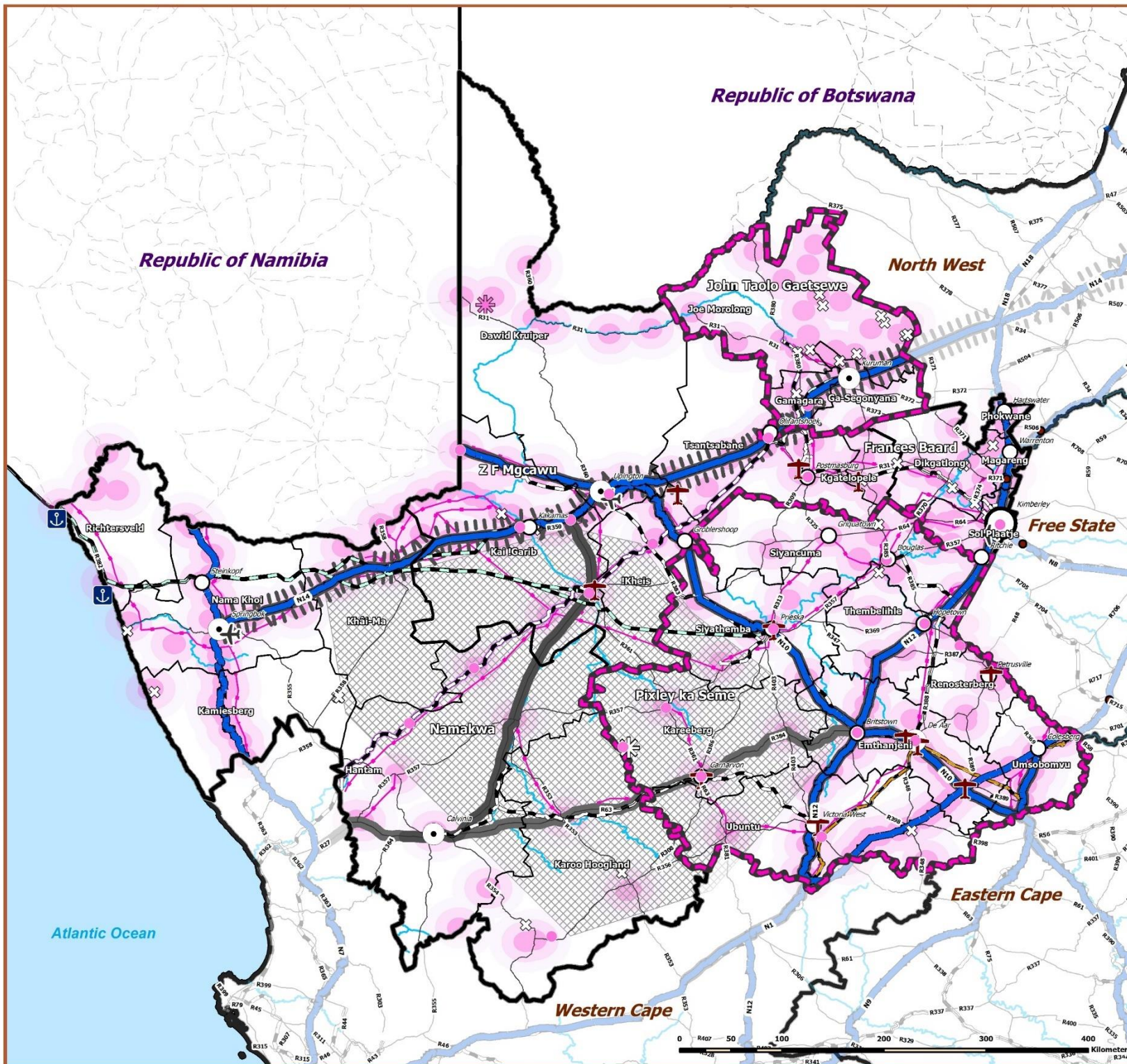
- Numerous "smart" developments and systems require stable internet access.
- Balance is required for communities and industries within the SKA Advantage area that limit access to communication technology utilising radio frequencies.
- Expansion of fibre infrastructure and networks must be Prioritised in poverty pockets, industrial parks, and SEZs.

ACTION AREAS:

- **Prasa rail:** Revitalise Prasa rail infrastructure and operations
- **Transport infrastructure:** Prioritise maintenance of regional linkages
- **ICT Priority Areas:** Prioritise Fibre Infrastructure rollouts in the John Taolo Gaetsewe and Pixley ka Seme District by prioritising wayleave applications received in the district.

- **SKA Core:** Prevent the establishment of projects with the potential to cause dust and radio frequency disturbances within the SKA Core Area.
- **Electronic Vehicle support:** Prioritise the establishment of Electronic Vehicle charging stations along national roads and regional linkages





Spatial Outcome **Competitive Infrastructure** **Development** **Accessibility & Mobility**

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres

ICT Development

- Broadband Lines
- 10km Cellphone Towers Radius
- 20km Cellphone Towers Radius
- 30km Cellphone Towers Radius
- ICT Investment Area
- ★ Fiber POP
- ★ Bloodhound Initiative

Transport Infrastructure

- PRASA Rail Routes
- Iron Ore Railway Line
- ⚓ Harbour
- ⚓ 2023/2024 Roads Projects
- ✈ Main Airports
- ✈ Aero Drome

Proposed Action Areas

- Regional Linkage roads
- Industrial Corridor
- Proposed Railway
- ▨ SKA Area
- ▨ SKA Core Site

Map 7: Competitive Infrastructure Development - Accessibility and Mobility

Source: SANBI, NSDF, DALRRD, DESTA, DEA, DFFE, DWS





2.2.1.7 THE MARITIME ECONOMY

To foster and support the growth of coastal economies, the following areas, projects, and activities must be prioritised to support the spatial outcome of bolstering maritime economies.

Upgrade Port and Harbour Facilities:

- Port Nolloth Harbour: Enhance the infrastructure of Port Nolloth Harbour to support a viable fishing industry.
- Hondeklipbaai Harbour: Upgrade Hondeklipbaai Harbour to facilitate the expansion of the fishing industry.

Enhance Fishing and Mariculture Corridors:

- Support the development and expansion of the fishing industry along the designated corridors.
- Promote mariculture projects to enhance seafood production.

Promote Aquaculture:

- Operation Phakisa: Implement aquaculture projects in Port Nolloth and Kleinsee as part of the Operation Phakisa initiative.

Support Offshore Gas Exploration and Green Hydrogen Production:

- Encourage offshore gas exploration activities to diversify energy sources, where environmental impacts can be mitigated effectively.
- Promote the production of green hydrogen to support renewable energy goals through the Boegoebaai Port development.

Upgrade Small Harbours:

- Invest in the development of small harbours to support local economies and fishing activities.

Enhance Marine Tourism and Coastal National Parks:

- Promote marine tourism activities to attract visitors and boost local economies.
- Support the development and maintenance of coastal national parks and marine protected areas to preserve natural beauty and attract tourists.

Support Coastal Municipalities:

- Provide resources and support to coastal municipalities to enhance their infrastructure, attractiveness to tourists and economic activities.

Develop Lobster Processing Facility:

- Establish and support the development of a lobster processing plant in Port Nolloth to add value to the local fishing industry.

Promote Coastal Tourism Nodes:

- Develop and enhance coastal tourism nodes to attract visitors and support local businesses, by encouraging the establishment of supporting services related to catering and accommodation.

Encourage Boat-Based Whale Watching:

- Whale Watching: Promote boat-based whale watching as a key tourist attraction, contributing to the local economy.

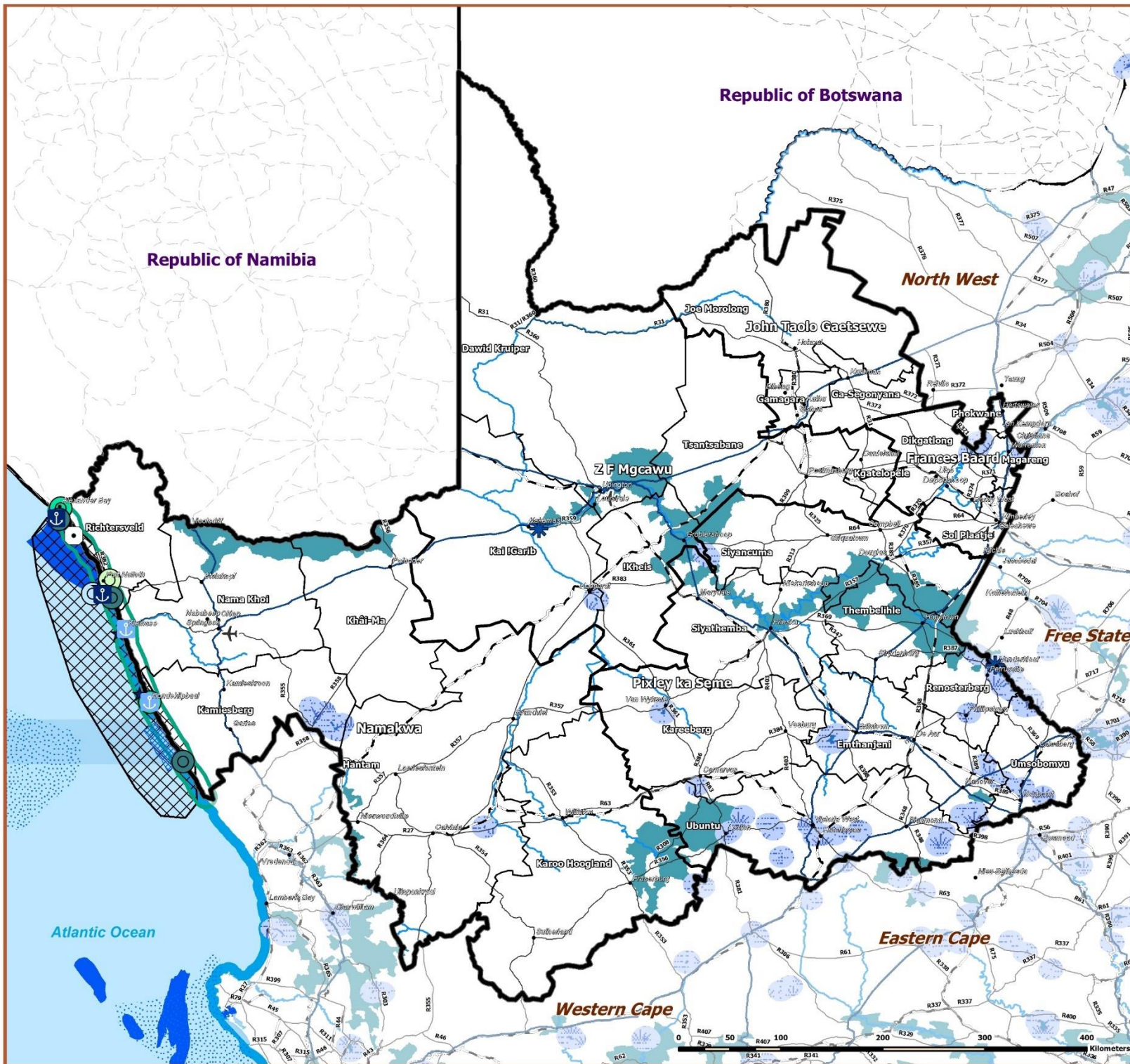
Support Coastal Mining:

- Ensure that coastal mining activities are sustainable and contribute positively to the local economy without compromising environmental standards.

ACTION AREA:

- **Coastal economy resource base:** Ensure development in the area sustainably takes place and complies with the restrictions imposed on marine protected areas.
- **Aquaculture support:** Support the establishment and maintenance of aquaculture projects within the Fishing and Maritime Corridor
- **Lobster processing plant:** Support the establishment and expansion of a lobster processing plant in Port Nolloth.
- **Supporting infrastructure:** Prioritise the upgrading and maintenance of harbours and related infrastructure for Port Nolloth, Kleinsee and Hondeklipbaai.
- **Tourism support:** Prioritise maintenance of gravel roads to ensure tourist attractions are accessible, as well as ensure the accommodation and catering facilities of national parks are upgraded.
- **Labour and skills support:** Enhance the participation of communities in the maritime economy by providing support in accessing funding for skipper and fishing licenses.





Spatial Outcome Maritime Economy

Supporting Infrastructure

- National Highways
- Main / Provincial Roads
- Railway Lines

Tourism Opportunities

- Boat Based Whale Watching
- Coastal Tourism Nodes
- Marine Environment

Processing Opportunities

- Lobster Processing Plant
- Aquaculture
- Hydropower Plant
- Green Hydrogen Energy

Marine Ecosystem Threat Status

- Critical
- Endangered

Proposed Action Areas

- Fishing & Mariculture Corridor
- Oil & Gas Exploration
- Potential Aquaculture
- Fish Sanctuary
- Marine Protected Areas
- Small Harbour Development



Map 8: Maritime Economic Support

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.2.2 DRIVER 2: TRANSFORMING SPACES AND LIVELIHOODS



Figure 5: Driver 2 Composition

Driver 2 aims to improve the spaces people interact with by enhancing the accessibility to social services as well as supporting the foundation of urban and rural livelihoods by channelling investment into urban and rural settlements, accompanied and supported by programmes aimed at food security, land reform, skills development and public transportation systems.

2.2.2.1 SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

ALSO REFER TO TOOLKIT 11 –
STRUCTURING ELEMENTS
GUIDELINES

The following components are crucial to achieving sustainable human settlement development within the Northern Cape context:

- Adapt and modify the understanding of “smart city” principles to the Northern Cape context by adjusting the understanding of smart from a technology-intensive interpretation to an intelligent knowledge-intensive interpretation. This allows for “low-technology” smart developments to gain equal recognition and prioritisation, which is more attainable for rural settlements. *Refer to the **South African Smart Cities Framework** for further information.*

- Revitalisation of the CBDs of Kimberley and Kuruman by prioritising maintenance on roads and related infrastructure, increasing the interval of waste collection.
- Promote the repurposing of dilapidated buildings within the Kimberley CBD to become subsidized housing or training facilities.
- Integrate the land use needs of social service facilities, such as education, into the planning phase of township establishments.
- Prioritise investment in human settlements according to the housing priority rating which is determined by which districts have the largest number of households in informal dwellings.
- Increase elderly support in areas experiencing population decline.
- Favour densification developments above, a development that aggravates urban sprawl.
- Reintroduce and reinforce urban edges within local and district SDFs, and support the introduction of 5, 10 and 15-year urban edges as a tool for future planning and development control. **(Refer to Application of Spatial Structuring Elements Toolkit)**
- Restrict any mining-related housing developments within the urban edges of existing settlements.
- Utilize the **Social Services Toolkit** to determine which social services are absent according to the settlement hierarchy given the economic potential score of the **Social Economic Potential of Towns Study**.
- Prioritise the refurbishment and repurposing of derelict and abandoned public infrastructure, above the investment into new infrastructure or facilities.
- Promote the integration of traditional settlement patterns and uses within the District, Municipal and Local SDFs where traditional authorities are evident.
- Prioritise climate change adaptation and mitigation measures in settlements located within the high-temperature risk zones.

ALSO REFER TO TOOLKIT 1 –
SOCIAL SERVICES
FACILITIES GUIDELINES





- Support the implementation of the preconditions for new developments in the low rainfall region, to integrate adaptation strategies such as, including rainwater harvesting infrastructure.
- Support the Small-Town Regeneration (STR) Strategy by prioritising the improvement of basic service delivery in the current STR, Priority 1 and Priority 2 settlements as identified by SALGA.

ACTION AREAS:

- **CBD Revitalisation priorities:** Prioritise the investment into the maintenance of transport infrastructure, waste management and urban greening projects.
- **Housing Priority Districts:** Allocate funding for housing developments in accordance with the priority rating of the district.
- **Priority Housing Nodes:** Support the Priority Human Settlements and Housing Development Areas by investing in bulk infrastructure to accommodate new housing projects.
- **High climate risk:** Prioritise the inclusion of climate change adaption strategies (Greenbook Toolkits) into land use regulations and bylaws of settlements located in high temperature and low rainfall areas.
- **Elderly Support Focus Areas:** Areas experiencing a population decline must adjust the available social services to cater for the ageing population.
- **Small Town Regeneration Priorities:** Prioritise interventions in basic service delivery in the following small towns: Kuruman, Kathu, Colesberg, Springbok, De Aar, Britstown, Calvinia, Groblershoop and Warrenton. *Refer to the **Small Town Regeneration Toolkit** to assess the eligibility of towns for regenerative measures.*

2.2.2.2 IMPROVED PUBLIC TRANSPORTATION

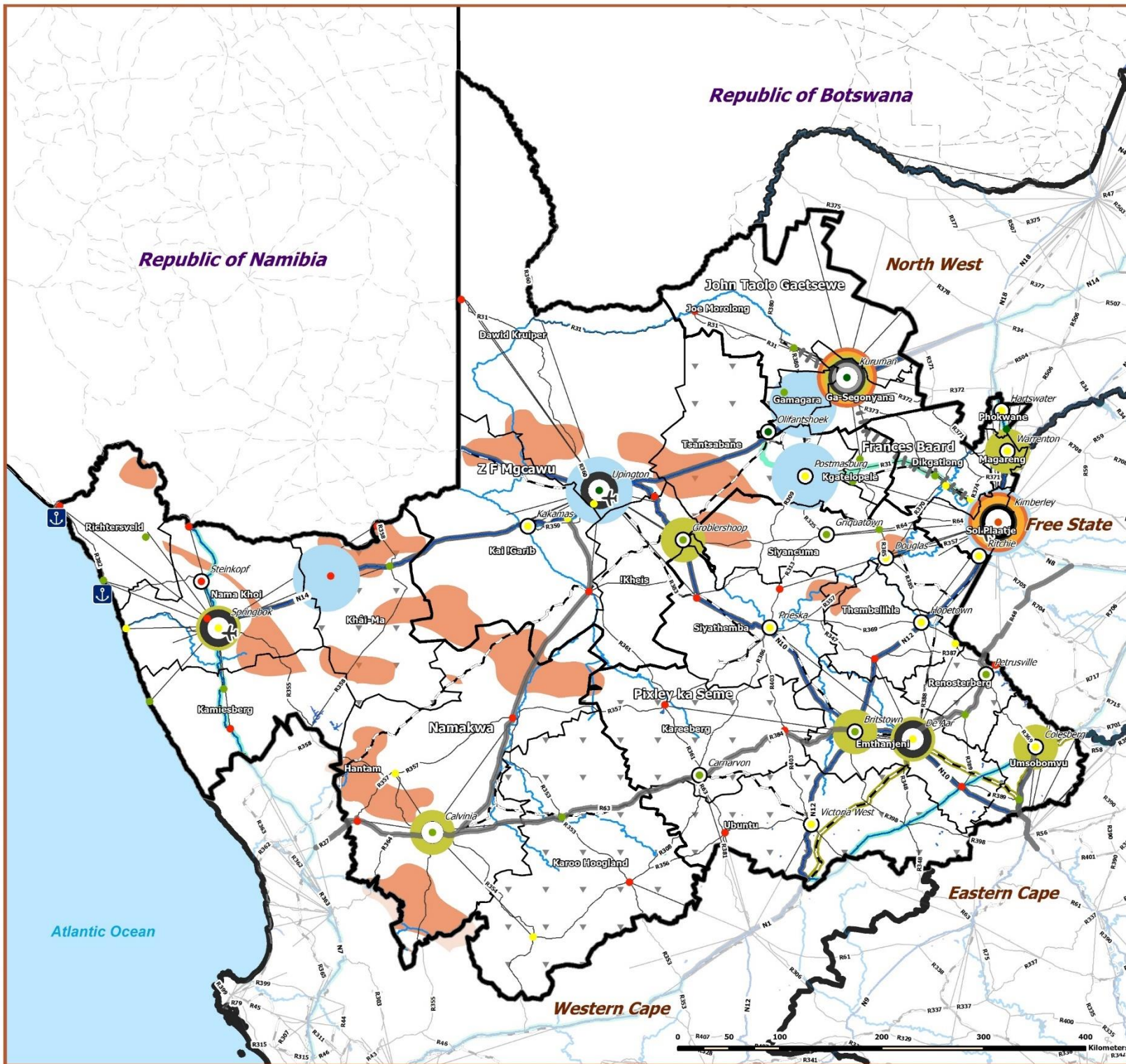
- Prioritise funding and investment geared towards the maintenance and upgrading of key public transport routes.
- Improve rural-to-rural public transport and other transport linkages with rural service anchors.

- Revive the rail networks by supporting the Government's Road to Rail Policy
- Support projects aimed towards improving the urban design and safety of public transport facilities.
- Ensure public transport facility designs are appropriate and cater to the needs of persons with disabilities.
- Prioritise investment in scholar transport and safety interventions.

ACTION AREAS:

- Improve public transport facilities and apply urban design principles to transit-orientated development within the nodes earmarked for public and urban design (Kimberley and Kuruman).
- Improve movement networks between districts through the upgrading and maintenance of the regional trade routes such as the R63, R27, R384 and R31 roads.
- Prioritise the revitalisation of the PRASA rail routes to diversify public transport options within the province and increase the accessibility to and from the province.





Spatial Outcome Sustainable Human Settlement & Public Transport Development

- Public transport & Urban design intervention nodes
 - Priority growth nodes
 - Small town Regeneration
 - Housing priority nodes
 - CBD Revitalisation Priorities
 - PSHDA Priority Township Development
 - Intercape Bus Routes
 - PRASA Rail Routes
 - Regional Trade Route
 - Functional Access
 - High Climate Change Risk
 - Elderly Support Priority Areas
- Economic Potential**
- High
 - Low
 - Medium
 - Very High
 - Very Low
- NSDF Town Typology**
- National Urban Nodes
 - Regional Development Anchor
 - Rural Service Centres
 - Other Towns

**Map 9: Sustainable Human
Settlement and Public
Transport Development**

Source: NCPSDF 2024, Greenbook (CSIR), COGTA





2.2.2.3 INTEGRATION OF RURAL DEVELOPMENT, LAND REFORM AND FOOD SECURITY

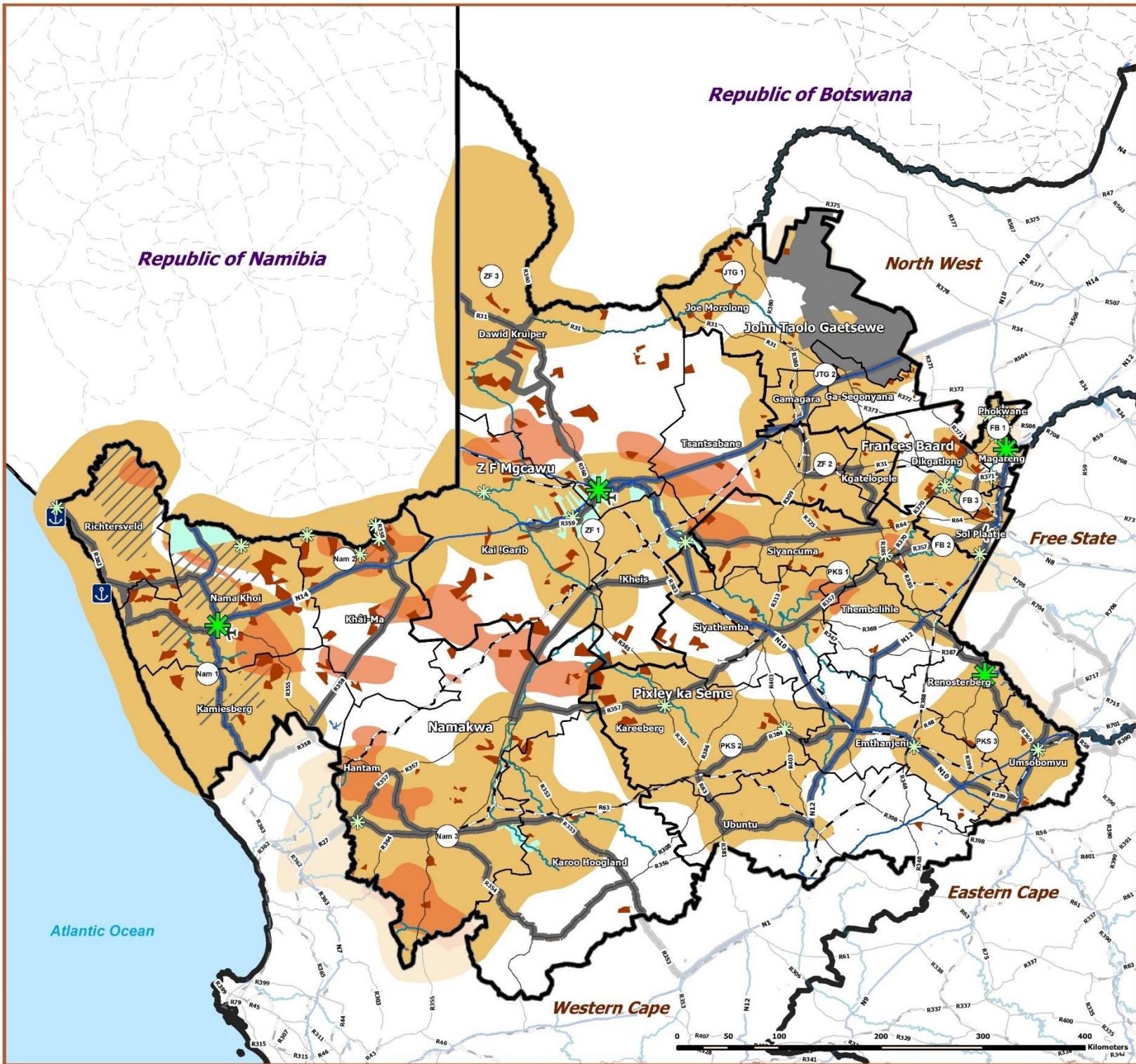
- Utilise Agriparks to create or strengthen existing farmer support networks and cooperatives to share resources and knowledge.
- Monitor and evaluate the impact of land reform policies to make necessary adjustments.
- Ease the access of small-scale farmers into the market by subsidising input materials and services and encourage the establishment of supporting industries with the potential to reduce agricultural input costs.
- Accelerate land redistribution efforts and secure land tenure for smallholder farmers, in line with the focus areas identified in the Rural Development Sector Plan.
- Streamline the process for land redistribution and provide support for new landowners.
- Support the diversification of land uses and industries in rural areas by promoting community-based tourism enterprises geared towards clear night skies, nature-based and agritourism.
- Support pilot and research projects and programmes aimed at establishing innovative farming techniques and the testing of suitable crop varieties.
- Ease participation in coastal economies by supporting fishing and maritime tourism industries by subsidizing fishing and boating licenses.
- Expand economic opportunities in coastal towns by promoting the establishment of processing facilities and the upgrading of harbour infrastructure.
- Prioritise maintenance on transport routes required for the trade of agricultural goods and yields.
- Utilize the PSDF Spatial Action Areas to support and enhance the impact of focus areas identified in the Rural Development sector Plan.
- Optimise the existing WTW and WWTW infrastructure in rural areas, to improve the livelihoods of rural residents.

ACTION AREAS:

- Cluster land reform project within Rural Intervention Areas.
- Fast track land reform processes and smallholder farm support, through the Agripark and training programmes, within the FB1, FB2 FB3, PKS3 and ZF1 Rural Intervention Areas.
- Prioritise investment in harbour infrastructure, mariculture, marine and nature-based tourism as a means to increase employment opportunities in rural landscapes.
- Avoid large-scale investment in climate-risk areas.
- Support the upgrading of water scheme infrastructure to support rural development viability.

ALSO REFER TO TOOLKIT 2 – RURAL DEVELOPMENT GUIDELINES





Spatial Outcome Integration of Rural Development, Land Reform and Food Security

- Agri Hubs
- Farmer Production Support Unit
- Foodmarkets
- Abattoirs
- Silos
- Main Airports
- Harbour
- Rural Ring Roads
- Rural Intervention Areas
- NC Irrigation Boards
- Trancraa Area
- Land Reform Farms
- High Climate Change Risk
- Traditional Authorities

Map 10: Integration of Rural Development, Land Reform and Food Security

Source: NCPSDF 2024, DALRRD





2.2.2.4 THRIVING EMPLOYMENT AND EDUCATION LANDSCAPES

- Prioritise investment in ICT infrastructure as a means to increase education and economic opportunities in rural settlements and areas.
- **Smart Education Hubs:** Support the development of training incubators supporting the manufacturing and trade industries in Springbok, Kimberley and Kuruman.
- **Youth Development Focus Areas:** Areas experiencing population growth must Prioritise the investment in developments that support the skills development of the labour force and are related to the dominant economic industries in the region.
- Prioritise investment in youth-orientated programmes in the priority youth development regions.
- Prioritise and support wayleave applications for ICT infrastructure in the John Taolo Gaetsewe district, and settlements located within the Youth Development Focus Areas.
- Support the expansion of the knowledge economy by linking the projects in rural regions with research institutions and explore opportunities for scholar and student involvement as a means to stimulate interest in the rural dynamics of the Northern Cape.
- Investigate opportunities to commercialize and preserve indigenous knowledge.

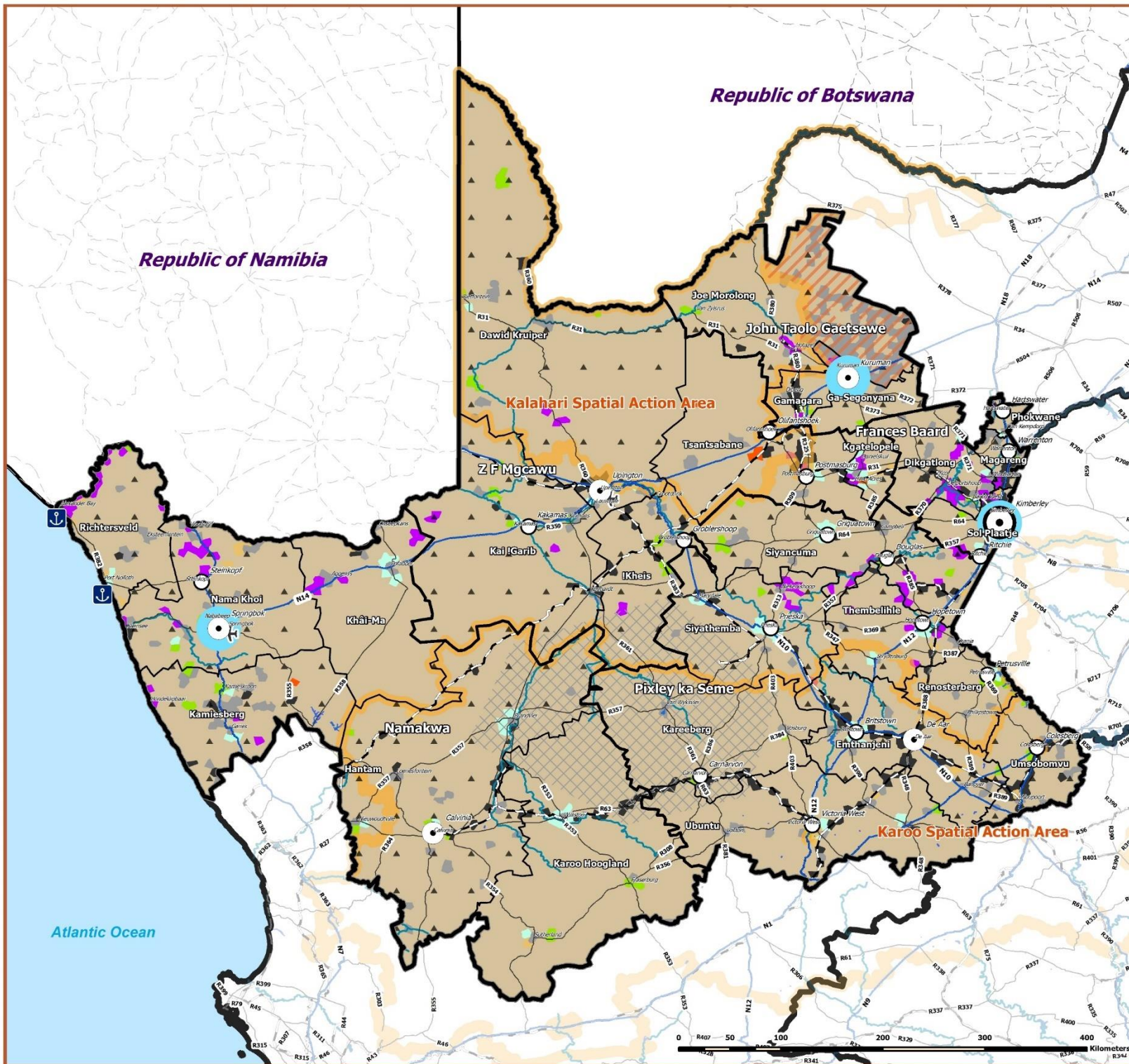
ACTION AREAS:

- **Smart Education Hubs:** Support the development of training incubators supporting the manufacturing and trade industries in Springbok, Kimberley and Kuruman.
- **Youth Support Focus Areas:** Areas experiencing population growth must Prioritise the investment in projects that support the skills development of the labour force and are related to the dominant and emerging economic industries in the region.
- **Kalahari and Karoo Action areas:** Explore the commercial potential of indigenous knowledge based on agricultural, medicinal and social

practices. Prioritise research studies as well as funding and scholarships pertaining to research related to arid-innovation and astronomy.

- **ICT Investment focus nodes & areas:** Promote and stimulate the roll-out of fibre and cell phone tower infrastructure by simplifying wayleave application procedures and requirements.





Spatial Outcome Thriving Employment and Educational Landscapes

- Main Airports
 - Harbour
 - National Urban Nodes
 - Regional Development Anchor
 - Rural Service Centres
 - Priority growth nodes
 - Skills development incubators
 - SKA trade-off
 - Youth support priority areas
 - ICT investment priority
 - Spatial Action Area (PSAA)
- Gross Value Added Categories**
- Agriculture, forestry and fishing
 - Electricity, Gas and Water
 - Finance, Insurance and Business Services
 - General government
 - Manufacturing
 - Mining and Quarrying
 - Transport, Storage and Communication
 - Wholesale and Retail Trade

Map 11: Thriving
Employment and
Educational Landscapes



Source: NCPSDF 2024, CSIR





2.2.3 DRIVER 3: CONSERVATION OF RESOURCE PRODUCTION AREAS

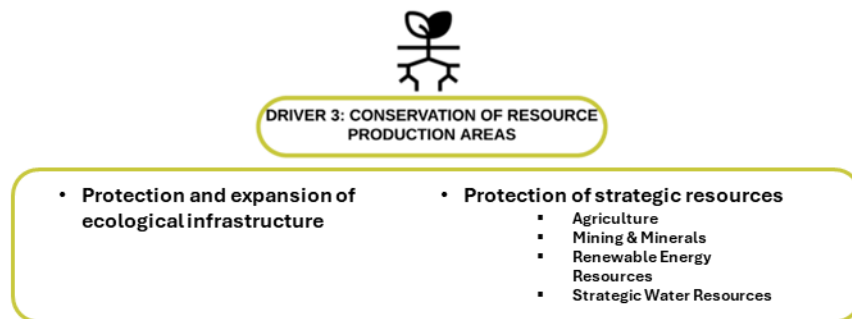


Figure 6: Driver 3 Composition

The Northern Cape Province has an abundance of natural resources and environmental assets. While these present a plethora of economic opportunities, a concerted effort must be made to ensure that these are protected and enhanced. At the same time, the Province must ensure that enough is done to protect communities against the potential threats of environmental harm and unsustainable resource exploitation. To achieve this, the following developmental outcomes have been identified:

- Protection of ecological infrastructure
- Protection of strategic production areas such as:
 - Agricultural Areas
 - Mining Regions
 - Strategic Water Resources
 - Renewable Energy Areas
 - SKA Advantage Area

ALSO REFER TO TOOLKIT 10 –
COASTAL MANAGEMENT
GUIDELINES

2.2.3.1 PROTECTION AND EXPANSION OF ECOLOGICAL INFRASTRUCTURE

- Prioritise the establishment of protected areas encompassing the Succulent Karoo areas in the Namakwa District, Bushmanland, and

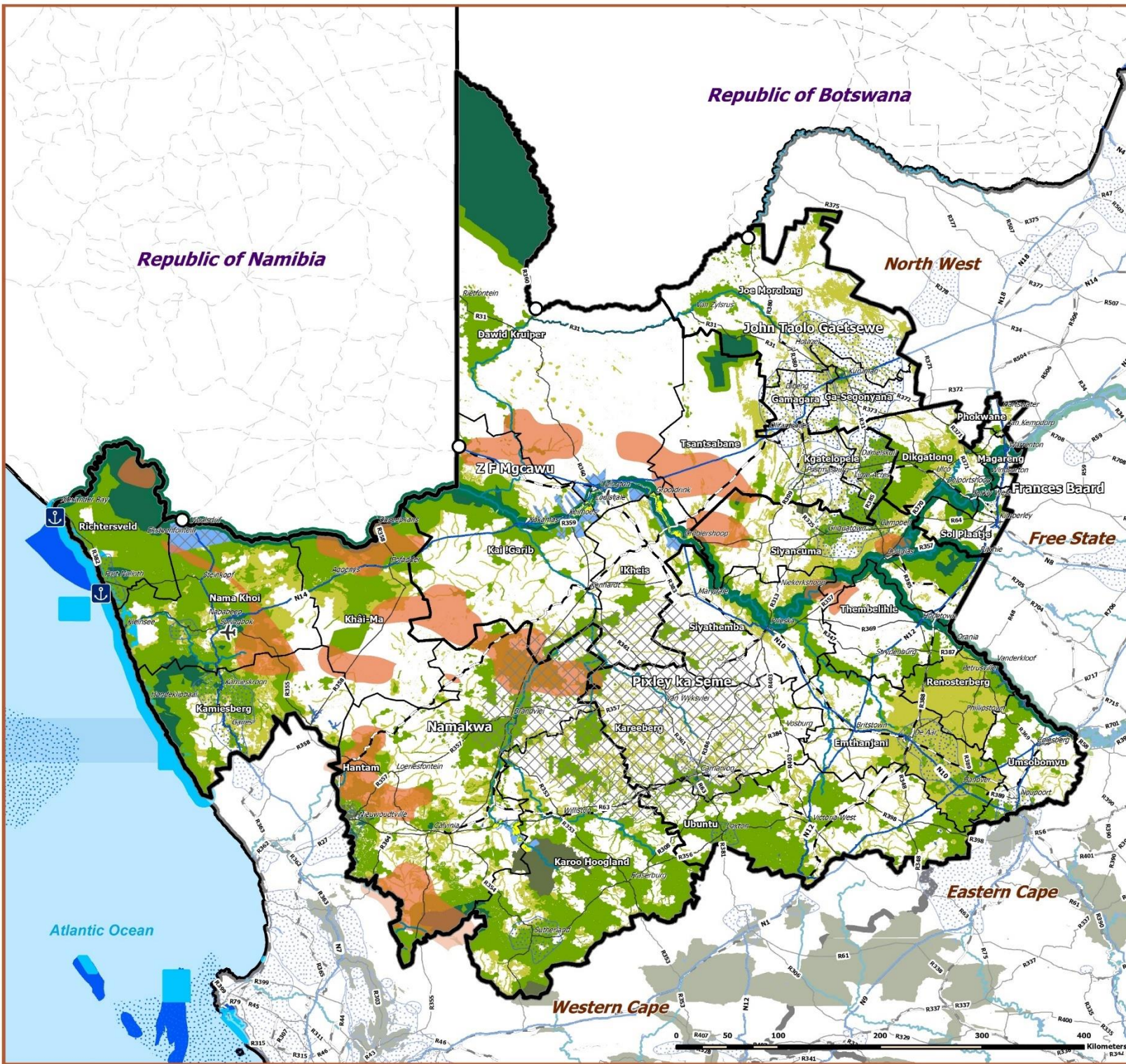
southern Nama-Karoo as well as the expansion of the existing national parks.

- Prohibit non-compatible or harmful land uses within Critical Biodiversity Areas.
- Promote the establishment of game farms in environmentally sensitive areas, as a means to promote the conservation of biomes.
- Provide funding towards enforcing environmental restrictions aimed at conserving ecosystems in the Marine Protected Areas (MPAs).
- Prohibit gas and mining exploration within Offshore Protection Areas.
- Ensure marine tourism complies with the requirements set out by the MPAs.
- Improve the monitoring and evaluation of increase or decrease of SPC-A land uses to monitor whether conservation targets are being met.
- Promote aquaculture as a means to limit the impact of commercial fishing on vulnerable ecosystems, through strict compliance and oversight from the Department of Agriculture, Environmental Affairs, Rural Development and Land Reform.
- Ensure landfill sites comply with NEMA regulations to limit the impact of waste on the surrounding environments.
- Prioritise the revision of the Northern Cape Coastal Management Programme (**Refer to the Coastal Management Toolkit**).

ACTION AREAS:

- Prioritise investment and rehabilitation efforts along the priority rehabilitation waterways
- Prioritise the revision of the Northern Cape Coastal Management Programme (**Refer to the Coastal Management Toolkit**).
- Prioritise the establishment of new protected areas and the expansion of existing protected areas within the Priority Expansion Areas.
- Improve the representation of the Nama-Karoo Biome in conservation targets within the Northern Cape by prioritising the registration of protected areas where the biome is present.
- Prohibit harmful and non-compatible land uses such as mining in Critical Biodiversity Areas One and Two.





- ### Spatial Outcome Conservation of Resource Production Areas Environment
- SKA trade-off
 - Agri-Eco Trade-off
 - Border Posts - Bio-security priorities
 - Namibia Roads
 - Botswana Roads
 - Strategic Water Areas
 - High Climate Change Risk
 - Priority Rehabilitation Waterways
 - Stressed Catchments
 - Priority Expansion Areas
- #### Protected Areas incl CBAs
- Protected Area
 - Critical Biodiversity Area One
 - Critical Biodiversity Area Two
 - Priority Environmental Patrol areas - 20 km Buffer
 - Focus Areas for Offshore Protection
 - Marine Protected Areas
 - Irrigation Boards
- #### Marine Ecosystem Threat Status
- Critical
 - Endangered

Map 12: Conservation of Resource
Production Areas – Ecological
Resource base

Source: NCPSDF 2024, SANBI, CSIR





2.2.3.2 PROTECTION OF STRATEGIC PRODUCTION AREAS

AGRICULTURE

- Enforce regulations to prevent the subdivision of high-potential agricultural land, ensuring its preservation for agricultural purposes.
- Implement programs and initiatives to promote sustainable agricultural practices, such as crop rotation, soil conservation, and the use of environmentally friendly farming techniques, to limit runoff pollution in waterways and ensure the longevity of agricultural land in the Northern Cape.
- Strengthen biosecurity measures and pest protocols, including cross-border coordination, to prevent the spread of diseases and pests that can harm agricultural yields in the Northern Cape.
- Promote the optimal utilization and capitalization of unique agricultural land, considering its specific characteristics and potential for agricultural production in the Northern Cape.
- Support the establishment of game farming within designated game farming focus areas (ESAs), providing guidance and resources to farmers interested in diversifying into game farming.
- Provide support and develop guidelines for farming activities within climate-risk areas to mitigate the impact of rainfall variability and promote resilience to climate change in the Northern Cape.
- Reserve protected agricultural areas exclusively for agricultural and agri-tourism use and obtain approval from the Department of Agriculture and Rural Development for any land use application within these areas, ensuring their preservation for farming purposes.
- Develop guidelines and support mechanisms for farmers within degraded land areas to rehabilitate and mitigate degraded agricultural land through sustainable farming practices.
- Prioritise investment and strategic interventions to facilitate the renewal of irrigation schemes located within designated Irrigation Scheme Revitalization Areas in the Northern Cape, improving water efficiency and agricultural productivity.

- Prioritise evaporation mitigation training and support for farmers in high-temperature increase zones and water resource protection zones to minimize water loss and protect agricultural resources in the Northern Cape.

ACTION AREAS:

- Prioritise investment and strategic interventions to facilitate the renewal of the Vaalharts irrigation schemes located within designated Irrigation Scheme Revitalization Areas in the Northern Cape, improving water efficiency and agricultural productivity.
- Investigate methods to manage and mitigate the environmental impact of high-intensity farming, situated within the Agri-Eco trade-off zones, which indicate where high levels of competition exist between conservational and agricultural land uses.
- Prioritise Wind Energy above solar projects where possible, to decrease the level of competition between renewable energy on extensive farming land uses within Agri-IPP trade-off zones.
- Prioritise water use for agriculture purposes above mining activities, to reduce the impact of mining on agriculture and the health of strategic water resources, within the Agri-mining trade-off zone.
- Provide training to communities located on degraded land regarding sustainable agricultural and land use practices to encourage the restoration of degraded agricultural land.

MINING

- Enforce regulations to prohibit mining activities in environmentally sensitive areas of the Northern Cape, such as protected natural areas, wetlands, and regions with high biodiversity.
- Consult the **Mining and Mining Town Toolkit** to determine whether the extractive industry and associated land uses are supported or discouraged.
- Encourage mining activities in areas of the Northern Cape where environmental degradation is irreversible or where extensive





environmental assessments have deemed mining appropriate, ensuring that mining is conducted responsibly in such areas.

- Establish policies and guidelines in the Northern Cape to mitigate the impacts on communities and the environment when mining closures occur, including provisions for reclamation, rehabilitation, and alternative economic opportunities for affected communities.
- Support the issuing of artisanal mining licenses on mines earmarked for rehabilitation in the Northern Cape, promoting responsible artisanal mining activities as part of post-mining land use.
- Prioritise the rehabilitation of mines in the Northern Cape that have limited or no potential for small-scale mining activities, focusing on restoring environmental integrity and creating sustainable post-mining land uses.
- Explore opportunities for revitalizing or repurposing mining infrastructure in the Northern Cape for other activities such as factories, renewable energy development, skills development and training centres, tertiary institutions, and off-grid settlements and towns, contributing to economic diversification and community development.

ACTION AREAS:

- Develop supporting guidelines and mechanisms for mining practices and application procedures in Agri-mining trade-off zones in the Northern Cape to limit the impact on agriculture and ensure responsible coexistence with agricultural activities.
- Prohibit the establishment of extractive industries, including mining, in Critical Biodiversity and Marine Protected Areas of the Northern Cape to prevent environmental and social harm.
- Develop a strategy to promote artisanal mining practices in locations where mines are facing high risks of closing.
- Prioritise the development and implementation of mitigation and adaptation strategies for mines within high-temperature risk zones in the Northern Cape to safeguard the health and safety of workers in high-temperature work environments.

RENEWABLE ENERGY RESOURCES

- Investigate methods to limit adverse environmental impacts of solar energy, stemming from the ground clearance and preparation that may result in increased run-off and erosion.
- Manage the level of competition between renewable energy and related land uses, with agriculture by favouring the energy generation type with the least impact on the agricultural activity in the area.
- Prohibit the establishment of new permanent settlements serving renewable energy projects. The **mining settlement toolkit** can be utilised to determine what settlement type and approach will be suitable.
- Ensure the components used by renewable energy plants, are recycled and discarded properly to reduce the environmental impacts of hazardous materials contained in solar panels and other equipment.

ACTION AREAS:

- Prioritise the adjustment of the IPP project designs to limit soil erosion within the Renewable Energy Development Zones and Wind Production Zones.
- Favour wind energy generation above solar on productive agricultural land located within the Agri-IPP Trade-off Zone.

STRATEGIC WATER RESOURCES

- Groundwater development may be considered for areas that are underlain by high-yield water potential, and dolomitic geological formations to ensure at least a basic water supply to all consumers (including settlements and livestock production areas).
- The development of regional groundwater schemes and improvement of existing groundwater supply in areas where mining operations are active, where dewatering of mines can also be investigated as an opportunity to augment water supply to domestic consumers.
- The development and implementation of suitable groundwater management and monitoring programmes by the WSA's in the NWP





starting with metering of water abstractions and water use. This would assist greatly in developing water balances for the aquifers utilised for domestic consumption.

- Support improved efficiency measures by the irrigation sector and schemes such as refurbishment of canals and improved irrigation technology making more water available for other developments (urban, agricultural, industrial, etc.).
- To reduce water use, all WWTWs must consider adjusting designs to include water reuse and ensure that the operations are fully compliant with the green drop status requirements.
- Prioritise the eradication of water losses between waterboards and Water Services Authorities.
- Introduce rain and greywater harvesting as a prerequisite for new developments within the province as a means to reduce reliance on surface and underground resources.
- Prioritise the optimisation of existing infrastructure above the expansion and new development of WTW and WWTW infrastructure, as a means to support the densification of settlements, and discourage urban sprawl.
- Support the increase of water tariffs for land uses associated with high water usage within settlements.

ALSO REFER TO TOOLKIT 7 –
CLIMATE CHANGE AND
ADAPTATION GUIDELINES

ACTION AREAS:

- Prioritise the optimisation and compliance of non-conforming WTW and WWTWs.
- Prioritise maintenance and water leak prevention in climate risk areas.
- Prioritise water-wise adaptation strategies and infrastructure deployment in municipalities with high climate risk areas. (Refer to **Climate Change Neutral Toolkit**).
- Establish cross-boundary partnerships with Namibia, North West and Free State Provinces to rehabilitate the waterways and water quality of the Orange and Vaal River Systems by ensuring WTWs and WWTWs comply with the Blue and Green Drop Assessment Report outcomes.

SKA ADVANTAGE AREA

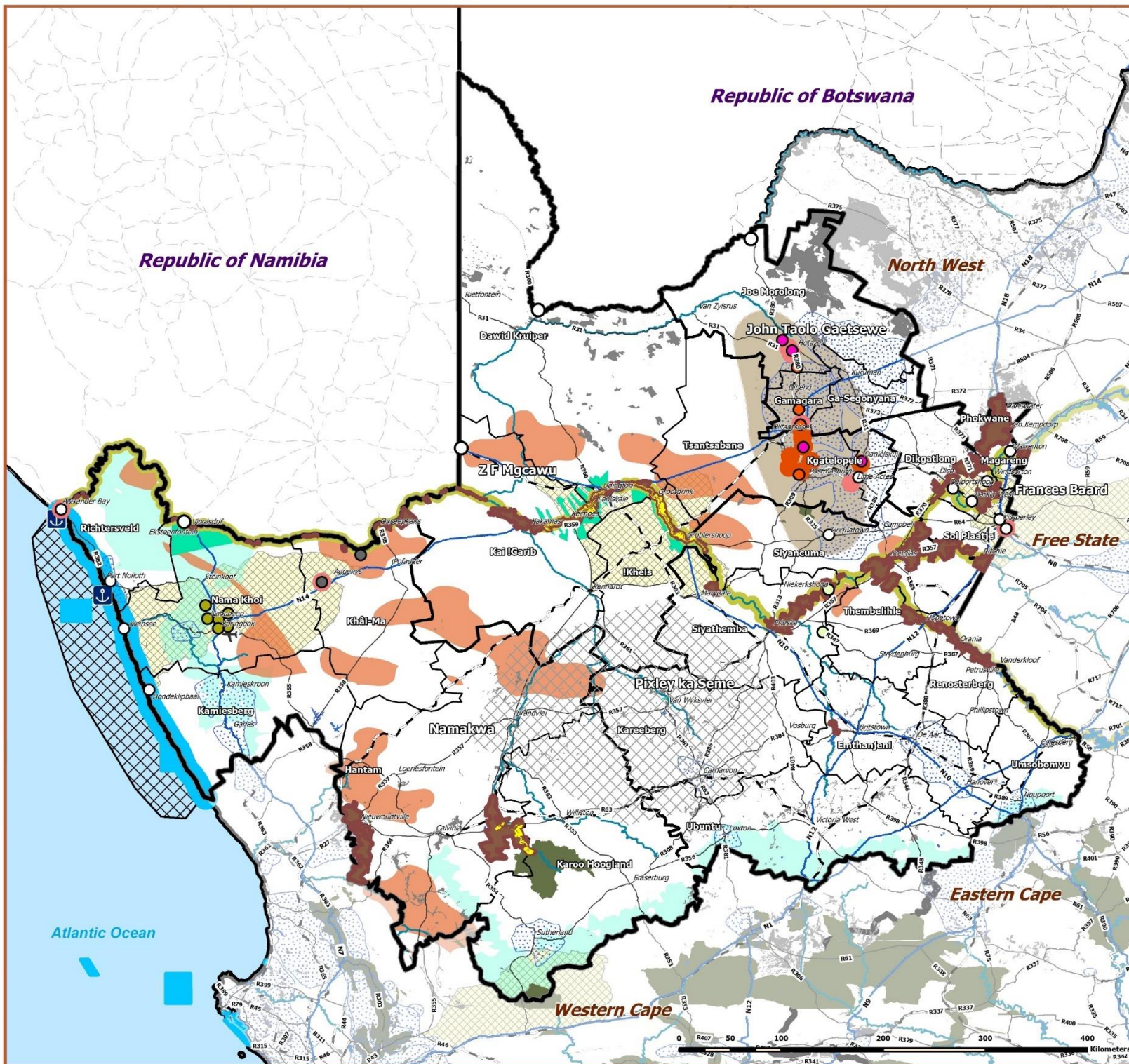
- Preserve the quality of clear night skies within the SKA Advantage Area, to limit the potential detrimental effects that light pollution and radio frequencies, emanating from electronic devices, pose to the data quality of radio telescopes.
- Support clear night sky and knowledge-based tourism, by allowing for accommodation and catering land uses within the broader SKA Advantage Area, but far enough from the SKA Core site to prevent radio frequency disturbances.
- Utilize the SKA Advantage Area to study the effects and timeframes of the land use change from agriculture to conservation, for greater insight into ecosystem dynamics.

ACTION AREAS:

- Prevent harmful and disruptive land uses within the SKA Advantage Area.
- Provide support and training to farmers located within the SKA Trade-off zone to adapt to farming techniques that are not disruptive to the SKA.
- Support the establishment of guesthouses and game farms within the SKA Trade-off zone.

ALSO REFER TO TOOLKIT 13 –
TOWARDS SUSTAINABLE
DEVELOPMENT





Spatial Outcome Conservation of Resource Production Areas Agriculture, Minerals & Renewable Energy Resource Base

- ✈ Main Airports
- ⚓ Harbour
- Border Posts - Bio-security priorities
- Degraded Land
- Priority Expansion Areas
- Priority Rehabilitation Waterways
- Strategic Water Areas
- ✂ SKA trade-off
- Protected Agricultural Area
- Stressed Catchments
- National Protected Areas
- Irrigation Boards
- Priority Environmental Patrol areas - 20 km Buffer
- Agri-mining trade-off Zone
- Agri-Eco Trade-off
- Wind Farming Potential Areas
- High Climate Change Risk
- Agri-IPP Trade-off Zone
- ⊠ Oil & Gas Exploration
- At Risk Mines**
 - High Risk
 - Medium Risk

Map 13: Conservation of Resource Production Areas - Strategic Resources

Source: NCPSDF 2024, PSDF2019, SANBI, ESKOM, EGIS





2.2.4 DRIVER 4: EFFECTIVE SPATIAL GOVERNANCE

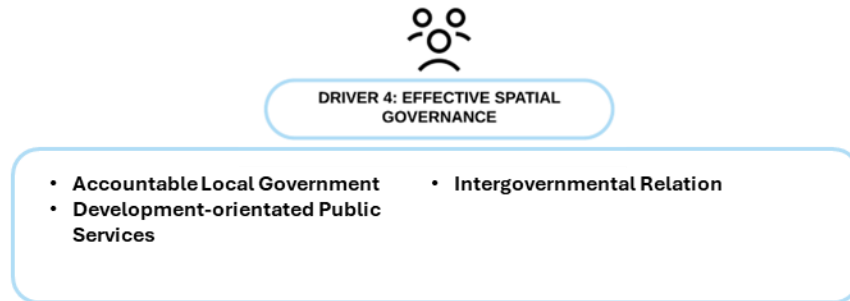


Figure 7: Driver 4 Composition

The Northern Cape Province needs a capable and accountable governance system, with a focus on streamlining inter-governmental relationships while strengthening participatory governance with civil society. To achieve this, the following developmental outcomes have been identified:

2.2.4.1 ACCOUNTABLE LOCAL GOVERNMENT

- Improve illegal land use control promoting the utilisation of land use control officers.
- Prioritise investment aimed towards the upgrading of billing systems to improve revenue collection from the municipal tax base.
- Establish municipal-level monitoring and evaluation measures regarding land use application types, to determine development trends, and compliance levels with SDFs and adjust spatial priorities accordingly.
- Prioritise debt interventions for municipalities with high levels of debt to Eskom and waterboards, as the debt levels destabilise the financial stability and expansion capabilities of upstream providers.
- Prioritise municipal interventions in WTWs and WWTWs where catalytic projects and the largest number of residents face high levels of risk.

- Ensure adequate budgets are allocated to ensure SPLUMA compliance that relates to the reviewing of spatial development frameworks, land use schemes.

2.2.4.2 DEVELOPMENT-ORIENTATED PUBLIC SERVICES

- Investigate the potential of conducting a provincial-wide EIA study or strengthening district environmental frameworks, where the results thereof can be utilised to exempt desired (application in unaffected areas) land use applications from EIA requirements.
- In collaboration with the Department of Agriculture, Environmental Affairs, Rural Development and Land Reform, exempt all land use applications from Act 7 of 1970 that fall within the urban edges of settlements.
- Introduce bursaries funded through national, provincial and district government to attract and retain crucial skills, that are required to effectively implement SPLUMA and sustainable development within the province, with a focus on GIS, town planning and engineering related fields.
- Determine priority project types (such as SEZs and IDZs), that are to be declared as provincial matters of interest, to streamline land-use applications of catalytic projects.
- Support the review of land use schemes and spatial planning bylaws to include pro-development regulations.
- Restrict pro-control regulations to land use applications impacting strategic and environmental resources.
- Prioritise the funding, promulgation and implementation of the Northern Cape Spatial Planning and Land Use Bill.

2.2.4.3 INTERGOVERNMENTAL RELATIONS

- Increase the financial and personnel capacity of the Office of the Premier, to act as the beacon of spatial planning within the province improve coordination and alignment.





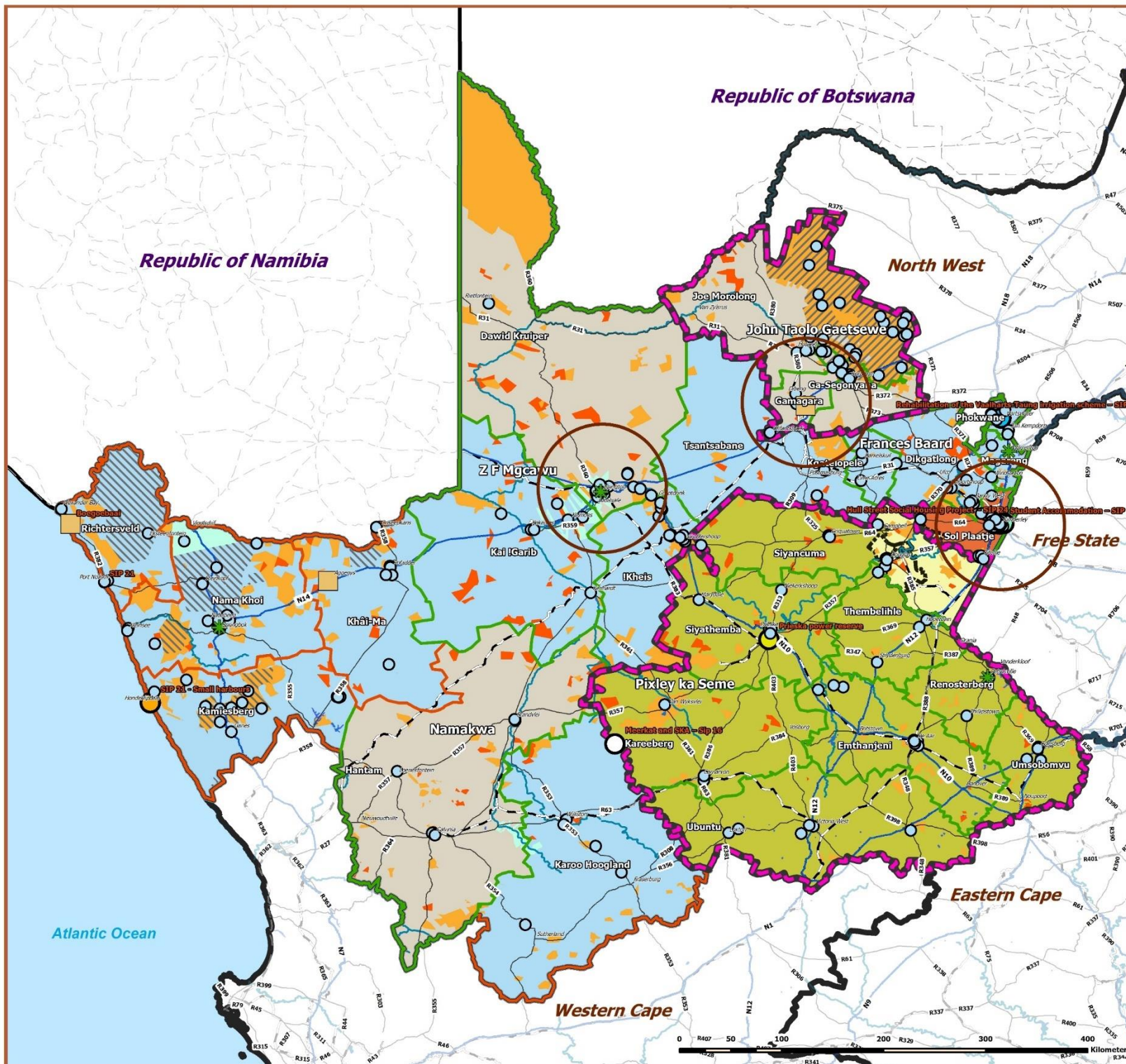
- Improve collaboration between Traditional Authorities and Local Authorities regarding land use management, by developing village or local spatial development frameworks that include traditional land use patterns into spatial development frameworks.
- Emphasize the importance of amending and prioritizing organograms across all three spheres of government to highlight the importance and need of development orientated professionals (such as town planners, GIS-specialist and engineers), thereby increasing spatial planning capacity within the province.
- Strengthen GIS and planning capacity on district levels to provide mapping, planning and land use guidance to local municipalities.
- DDM, IDP and all other intergovernmental relations (IGR) platforms must utilise the SDFs as the main mechanism for coordination and prioritization of expenditure.
- Develop, strengthen and expand monitoring platforms that allow for pattern recognition in land use application challenges to allow for early detection and intervention measures to be put in place regarding land use and developmental processes.
- Require the relevant departments to monitor the coverage of associated Spatial Planning Categories, to determine whether departmental targets are being met.
- Improve the skills and capacity levels of municipal, district and provincial planning departments by conducting skill and capacity gap analysis to determine what capacity programmes will be beneficial.

ACTION AREAS

- Ensure Municipal Planning Tribunal's (MPT) capacity and skill levels are adequate where complex land use applications are required for SEZ, IDZ and IPP projects.
- Prioritise collaboration and engagement with traditional authorities regarding land use practices in the John Taolo Gaetsewe District, as well as with communities located in TRANCRAA Areas.

- Support SIP 35 by prioritising the expansion of ICT infrastructure in the form of cell phone towers and fibre optic infrastructure roll-outs in the Pixley ka Seme district.
- Enhance cross-boundary coordination with the North West province regarding the upgrading and revitalization of the Vaalharts-Taung Irrigation scheme in support of SIP 19.
- Expand and promote social housing projects in Upington, Kimberley and Kuruman as a means to support SIP 24.
- Prioritise investment and municipal coordination for the upgrading and expansion of the Vaal-Gamagara Scheme in support of SIP 19.
- Support the SIP registration process and outcome for the Prieska Power Reserve.
- Promote the provision and maintenance of student accommodation in Kimberley in support of SIP 34.





Spatial Outcome Spatial Governance

- SEZ/IDC
- ICM Priority
- State Owned Land
- Land Reform Farm
- CRDP Site
- Traditional Authorities
- Trancraa Area
- Proposed Government Precincts
- Strategic Integrated Projects**
- SIP 24 - Hull Street Social Housing Project
- SIP 16 - Meerkat and SKA
- Prieska power reserve
- SIP 19 - Rehabilitation of the Vaalharts-Taung irrigation scheme
- SIP 21 - Small harbours
- SIP 34 - Student Accommodation
- SIP 35: SA Connect Priorities
- Vaal Gamagara Scheme Affected Parent Farms
- Current Infrastructure Projects
- Agri Hubs
- Planning Tribunal Status**
- Functional
- Functional. Extended June 2025.
- Planning Tribunal Type**
- DMPT
- Joint MPT
- Single MPT

Map 14: Effective Spatial Governance

Source: NCPSDF 2024, Treasury, OTP, DALRRD





2.3 COMPOSITE SPATIAL FRAMEWORK

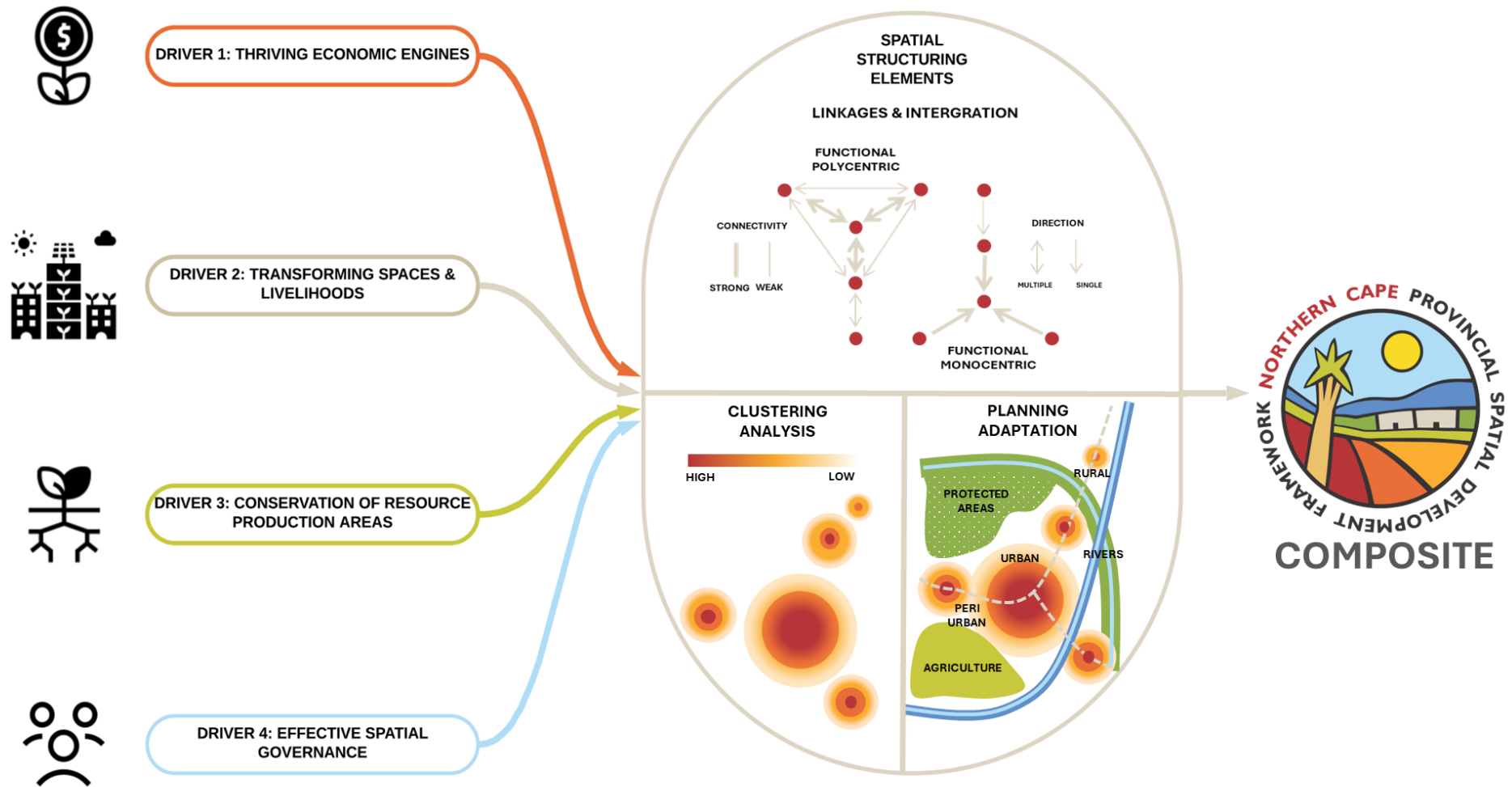
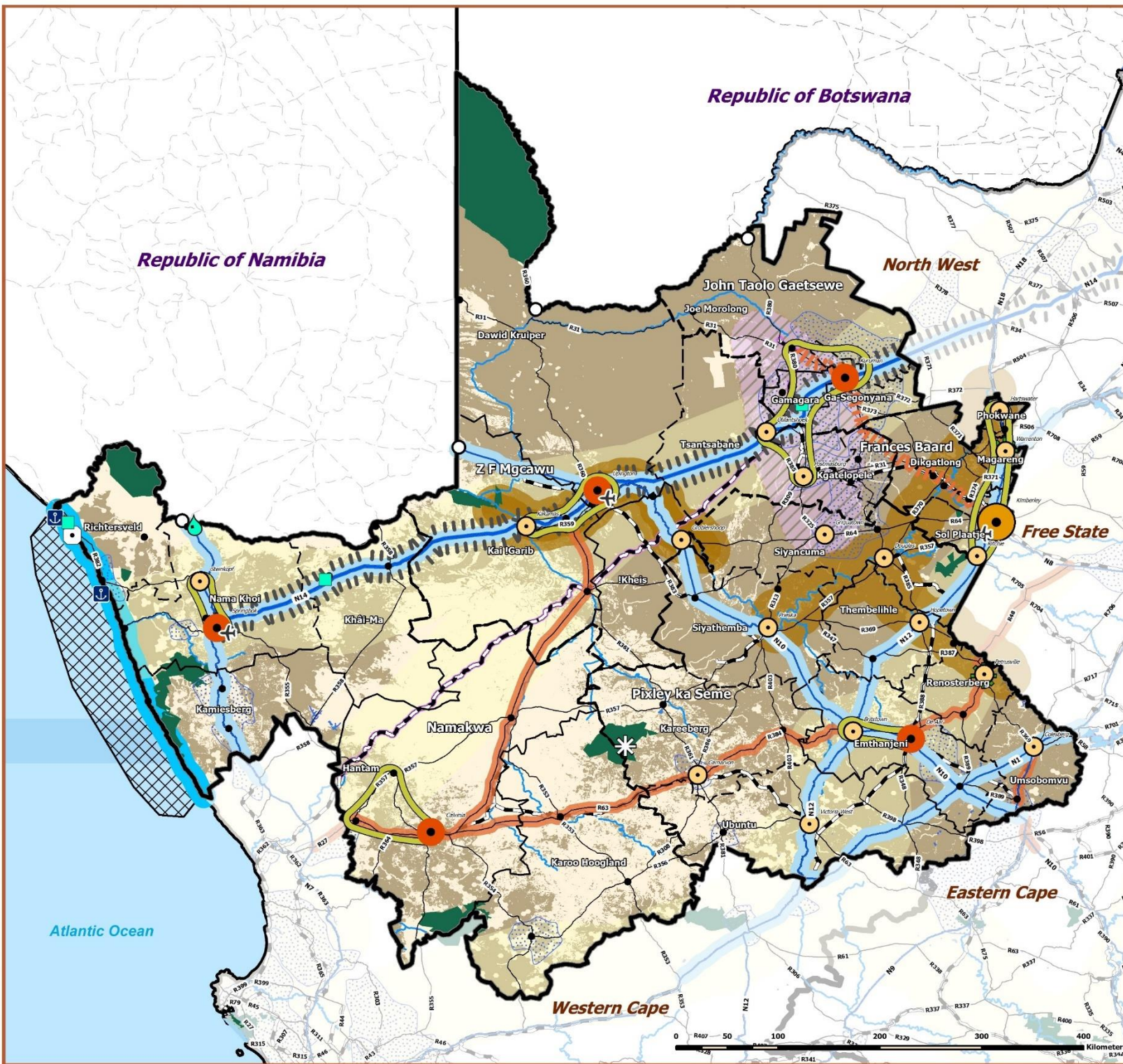


Figure 8: Elements informing the NC PSDF Composite Map





Northern Cape PSDF Composite

Zones

- Strategic Groundwater Area
- Gamagara Mining Corridor
- National Protected Area
- Power corridors
- Vaal-Orange Agricultural Zone
- Fishing & Mariculture Corridor
- Main Protein Region
- Marine Protected Areas
- Oil & Gas Exploration
- Extensive Agriculture

Corridors

- National Highways
- Main / Provincial Roads
- Industrial Corridor
- National Trade Route
- Regional Trade Route
- Proposed Regional Trade Route
- Iron Ore Railway Line
- Fishing & Mariculture Corridor

Nodes

- SEZ
- Green Hydrogen Energy
- SKA Core Site
- Agri Hubs
- Vioolsdrift Dam

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres
- Other Towns

Supporting Elements

- Proposed Settlement Corridors
- Northern Cape Province
- Local Municipality
- District Municipality
- Dams
- Main Rivers
- Railway Lines
- Main Airports
- Border Posts
- Harbour

Map 15: Northern Cape PSDF Composite Map

Source: NCPSPDF2024, NCPSPDF2019





2.3.1 DEFINING COMPONENTS OF THE COMPOSITE

2.3.1.1 NODES

SETTLEMENT HIERARCHIES

The settlement hierarchies for the Northern Cape, informed by the NSDF, indicate which settlements play a dominant role in the economic distribution and spatial structuring of the province, highlighting the location of the economic engines of the province.

CATALYTIC PROJECTS

Large-scale catalytic projects within the Northern Cape, act as nodes, pulling labour and resources to the location of the projects, with the goals of stimulating economic growth and development.

IMPORT/EXPORT NODES

The Northern Cape shares borders with Namibia and Botswana. The four border posts act as crucial trade and tourism nodes, which require upgrading in efficiency as well as an improvement in biosecurity measures to safeguard the agricultural industry.

2.3.1.2 ZONES

The following zones form the foundation of the Northern Cape PSDF Composite Spatial Framework:

STRATEGIC GROUND WATER

The Northern Cape is a drought-prone province, resulting in a heavy reliance on strategic underground water resources for agricultural, industrial and human consumption. The protection of these resources is of the utmost importance, where great care is required to limit the overuse and pollution of underground water resources.

GAMAGARA MINING CORRIDOR

The large cluster of mining operations and settlements is due to the extensive iron and manganese deposits in the area. The area is highly vulnerable to mining closures and as a result, the area requires radical intervention to diversify the economic base.

ALSO REFER TO TOOLKIT 11 –
STRUCTURING ELEMENTS
GUIDELINES

VAAL-ORANGE AGRICULTURAL ZONE

The Vaal and Orange River systems allow for agriculture to thrive on the fertile riverbanks. The high intensity of agriculture in these areas encapsulates opportunities to expand and optimize value chains. The areas also highlight high levels of competing interest as the riverbanks also represent sensitive ecosystems.

MARINE PROTECTED AREAS

The Northern Cape coastline and marine life provide unique opportunities for conservation studies and tourism activities. These areas are highly sensitive and as such require strict adherence to activity regulations.

OIL AND GAS EXPLORATION ZONES

Oil and gas deposits are evident along the coastline. The area encapsulated potential for extractive industries, which may only be allowed outside marine protected areas, where the environmental concerns can be adequately mitigated.

2.3.1.3 CORRIDORS

INDUSTRIAL CORRIDOR

The Northern Cape Industrial Corridor represent the clustering of industrial activities along the N14, which links Kuruman and Upington with the North West and Gauteng provinces. Industrial, trade, manufacturing and logistics are promoted land uses along the corridor.





POWER CORRIDOR

Renewable energy generation has become a prominent sector within the Northern Cape. The expansion of the sector and the locality of new IPP development are largely dependent on the location and available capacity of the Eskom High and Medium voltage lines. Expansion of the grid is crucial as the Northern Cape network is at full capacity, blocking any further development in the sector.

NATIONAL TRADE ROUTES

The national trade routes form the main transport spines of the Northern Cape which connect the economic engines of the province with the national urban regions of Gauteng, Cape Town and Nelson Mandela Bay.

REGIONAL TRADE ROUTES

Regional trade routes play a pivotal role in connecting peri-urban and rural areas to service centres and national nodes. Maintenance and routine upgrades are required on these routes, as the livelihoods of rural communities require the route to access services and transport agricultural products.

PROPOSED TRADE ROUTE

The proposed trade route forms a dual function of supporting the distribution and logistics stemming from the mining activity in the Gamagara Corridor as well as improving public transport safety on the R31 route connecting Hotazel with Kimberley.

2.4 SPATIAL ACTION AREAS

Following the directive of the National Development Plan (NDP), the National Spatial Development Framework (NSDF) identifies areas of significant national risk and potential. These areas, termed National Spatial Action Areas (NSAAs), aim to counteract the centrifugal forces that shaped Apartheid-era spatial development by promoting a cohesive national development strategy. The NSDF envisions a sustainable, resilient, and inclusive spatial footprint for South Africa, aligning regional and local development efforts to national priorities.

NSAAs serve as the foundation for addressing the most pressing spatial development challenges and opportunities. They focus on creating high-quality, serviced, and connected places with robust economies. The identification of NSAAs is driven by the need for radical spatial transformation, risk management, and accelerated movement towards an Ideal National Spatial Development Pattern by 2050. The five types of NSAAs are critical for catalysing national spatial transformation and economic transition, and for addressing the most stressed sub-national regions in terms of current and anticipated risks. These areas necessitate urgent, targeted, and sustained collaborative intergovernmental action.

In the context of the Northern Cape, the NSAAs highlight the importance of strategic regional development and risk management. The Northern Cape's unique geographical and climatic conditions, coupled with its economic potential in sectors such as mining, agriculture, renewable energy, and tourism, make it a focal point for implementing the NSDF's strategic spatial interventions. Aligning provincial development plans with national priorities ensures the sustainable utilization of natural resources and addresses regional disparities.





Northern Cape PSDF Composite

Zones

- Strategic Groundwater Area
- Gamagara Mining Corridor
- National Protected Area
- Power corridors
- Vaal-Orange Agricultural Zone
- Fishing & Mariculture Corridor
- Main Protein Region
- Marine Protected Areas
- Oil & Gas Exploration
- Extensive Agriculture

Corridors

- National Highways
- Main / Provincial Roads
- Industrial Corridor
- National Trade Route
- Regional Trade Route
- Proposed Regional Trade Route
- Iron Ore Railway Line
- Fishing & Mariculture Corridor

Nodes

- SEZ
- Green Hydrogen Energy
- SKA Core Site
- Agri Hubs
- Vioolsdrift Dam

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres
- Other Towns

Supporting Elements

- Proposed Settlement Corridors
- Northern Cape Province
- Local Municipality
- District Municipality
- Dams
- Main Rivers
- Railway Lines
- Main Airports
- Border Posts
- Harbour

Map 16: Northern Cape Provincial Spatial Action Areas (PSAAs)

Source: NCPSDF2024, NCPSDF2019





2.4.1 NORTHERN CAPE-SPECIFIC SPATIAL ACTION AREAS (PSAAS)

Building on the NSAAs, the Northern Cape has identified six Provincial Spatial Action Areas (PSAAs) tailored to its unique context and development needs. These PSAAs are designed to leverage local opportunities while mitigating risks, ensuring the province's growth aligns with the national spatial vision.

2.4.1.1 COASTAL SPATIAL ACTION AREA (CSAA)

The **CSA** focuses on the sustainable development of the Northern Cape's coastal regions. It emphasizes the protection of marine and coastal ecosystems, the promotion of maritime and tourism industries, and the enhancement of coastal infrastructure. Key initiatives include developing small harbours to support the fishing and tourism economy and strengthening regional and cross-provincial collaborations for coastal management.

2.4.1.2 DOUGLAS TO KAKAMAS SPATIAL ACTION AREA (DKSAA)

The **DKSA** is characterized by its significant agricultural potential, especially along the Orange River. This area aims to optimize irrigation farming, promote agro-industrial activities, and enhance water management systems. The focus is on sustainable agricultural practices, diversifying the local economy, and improving transport and ICT infrastructure to connect rural areas to larger markets.

2.4.1.3 GAMAGARA SPATIAL ACTION AREA (GSAA)

The **GSA** is a critical mining and industrial hub. This PSAA aims to enhance the economic contribution of the mining sector while addressing environmental impacts and social needs. Key actions include upgrading infrastructure, improving service delivery, and fostering local economic development through skills training and enterprise support.

2.4.1.4 KALAHARI SPATIAL ACTION AREA (KHSAA)

The **KHSA** focuses on the unique challenges and opportunities in the Kalahari region, known for its arid condition, tourism potential and cultural diversity. Strategies include promoting renewable energy projects, supporting sustainable renewable energy practices, and enhancing the resilience of local communities through innovative water and land management techniques.

2.4.1.5 KAROO SPATIAL ACTION AREA (DSAA)

The **DSA** addresses the Karoo's agricultural and ecological challenges, emphasizing sustainable land use and economic diversification. Initiatives focus on promoting agri-tourism, protecting biodiversity, and developing renewable energy sources. Collaboration between local governments and communities is crucial for managing resources and ensuring long-term sustainability.

2.4.1.6 RURAL SPATIAL ACTION AREA (RSAA)

The **RSA** targets the development needs of the Northern Cape's rural areas, which are often characterized by limited access to services and economic opportunities. This PSAA aims to improve rural-urban connectivity, enhance basic service delivery, and support small-scale farming and rural enterprises. The focus is on building resilient rural communities through improved infrastructure, education, and health services.

2.4.1.7 VAALHARTS SPATIAL ACTION AREA (VHSAA)

The Vaalharts Spatial Action Area (VHSAA), the smallest in the province, includes Phokwane and Magareng Local Municipalities and parts of Sol Plaatjie and Dikgatlong. Located in the northeast, it features protected agricultural land and significant mining activity. Kimberley, the provincial capital, is the economic hub with diverse industries and key transport links (N8, N12, N18). Development priorities include energy challenges, agricultural land protection, agro-processing, mineral beneficiation, private sector investment, SMME potential, and natural resource conservation.





Strategic opportunities involve renewable energy, adventure tourism, mining development, infrastructure upgrades, training initiatives, and heritage tourism. The main focus is on agriculture and agro-processing, with support for mining while ensuring environmental conservation.

2.4.2 ALIGNMENT TO THE NSDF SPATIAL ACTION AREAS

Alignment	The focus of Actions and Interventions	Key Actions
Coastal PSAA		
Part of the western section of the Arid Innovation Region	→ Consolidate settlement development → Develop small harbours for fishing, tourism, and maritime economy	→ Develop small harbours → Enhance tourism and fishing industry infrastructure → Protect coastal ecosystems → Promote sustainable economic activities → Improve transportation networks
The northern part supports the Northwestern NSTETR		
Douglas to Kakamas PSAA		
Supports the Arid Innovation Region	→ Consolidate settlement development	→ Expand and improve irrigation systems → Support agri-innovation → Promote water-efficient practices → Consolidate settlement development
The central part supports the Northwestern NSTETR		
Gamagara PSAA		
Supports the Arid Innovation Region	→ Support settlement development and new cities	→ Strengthen environmental management → Support economic diversification
Supports the Northwestern NSTETR	→ Develop small-scale farming, agri-	→ Improve service delivery → Invest in social infrastructure

Alignment	The focus of Actions and Interventions	Key Actions
	industrialization, and tourism	→ Support settlement development
Kalahari PSAA		
Supports the Arid Innovation Region	→ Consolidate settlement development	→ Promote renewable energy projects → Support community resilience initiatives
Supports the Northwestern NSTETR		→ Develop sustainable tourism → Support settlement development
Karoo PSAA		
Predominantly part of the Arid Innovation Region	→ Support settlement development and new cities	→ Encourage agri-innovation → Support alternative energy projects → Enhance regional collaboration → Promote sustainable land use practices → Support settlement development
Rural PSAA		
Supports the Arid Innovation Region	→ Consolidate settlement development	→ Improve rural infrastructure → Support small-scale farming → Enhance service delivery → Promote conservation and sustainable use of natural resources
Supports the Northwestern NSTETR		→ Support settlement development

Cross-Cutting focus of Actions and Interventions

- Focus on regional adaptation and economic diversification
- Support compact settlements around service nodes and transport routes
- Enhance ICT for distance learning and economic opportunities
- Improve transportation and ICT infrastructure
- Protect ecological infrastructure and agricultural land



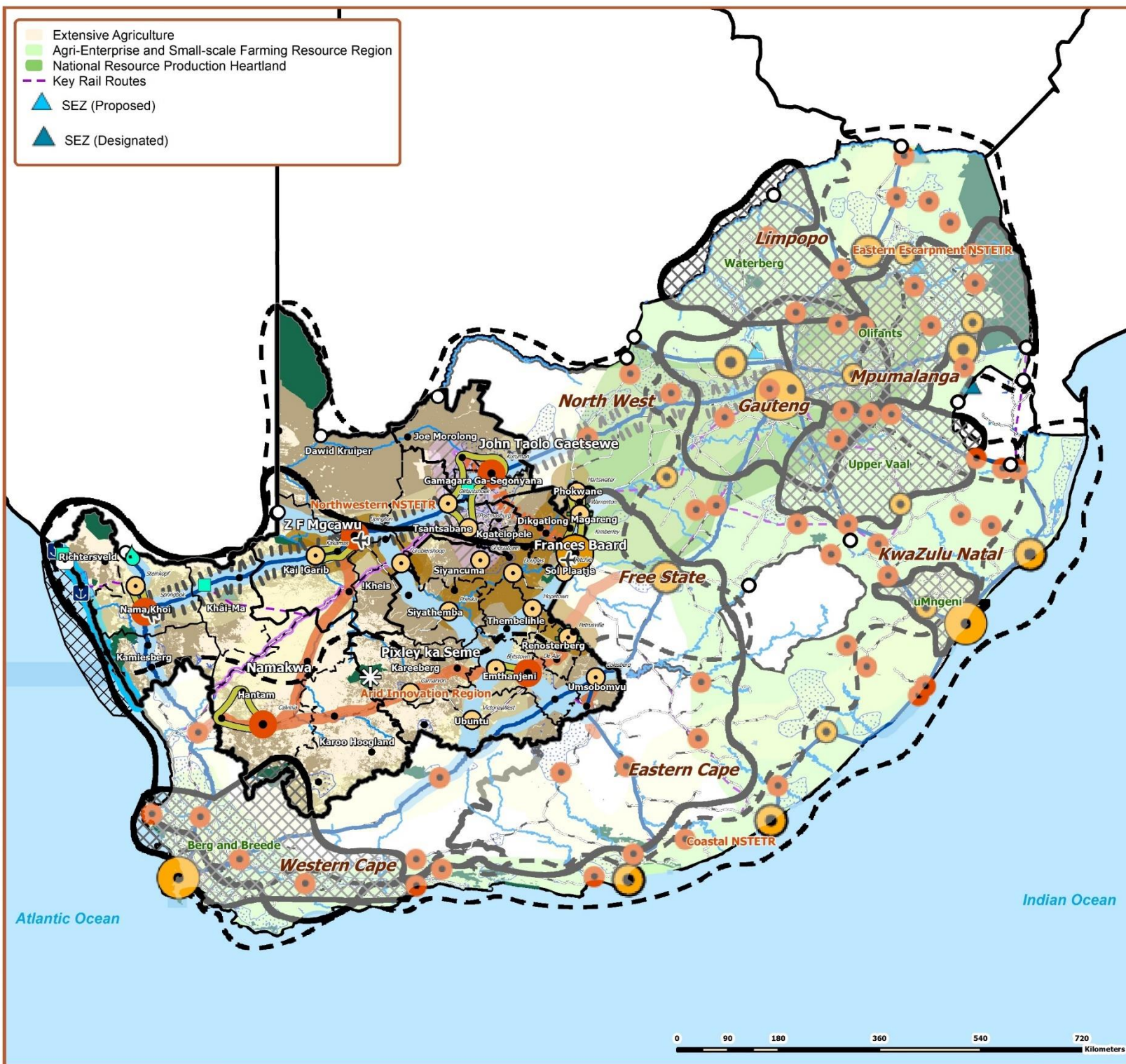


- Promote human capital and inclusive growth
- Develop small-scale farming, agro-industrialization, and tourism
- Enhance regional collaboration and cooperative governance
- Develop urban nodes, regional anchors, and rural service centres

Cross-Cutting Actions

- Invest in high-speed ICT infrastructure
- Invest in transportation and ICT infrastructure
- Support regional collaboration and cooperative governance





Northern Cape PSDF Composite Alignment

Zones

- Strategic Groundwater Area
- Gamagara Mining Corridor
- National Protected Area
- Power corridors
- Vaal-Orange Agricultural Zone
- Fishing & Mariculture Corridor
- Main Protein Region
- Marine Protected Areas
- Oil & Gas Exploration
- Extensive Agriculture

Corridors

- Industrial Corridor
- National Trade Route
- Regional Trade Route
- Proposed Regional Trade Route
- Iron Ore Railway Line
- Fishing & Mariculture Corridor

Nodes

- SEZ
- Green Hydrogen Energy
- SKA Core Site
- Agri Hubs
- Vioolsdrift Dam

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres
- Other Towns

Supporting Elements

- Proposed Settlement Corridors
- Northern Cape Province
- Local Municipality
- District Municipality
- Dams
- Main Rivers
- Railway Lines
- Main Airports
- Border Posts
- Harbour

Map 17: Alignment between the NSDF, 2020 and the PSDF, 2024.



Source: NCPSPDF 2024, NCPSPDF 2019, NSDF 2020





2.5 SPATIAL ACTION AREA DIRECTIVES

2.5.1 COASTAL SPATIAL ACTION AREA (CSAA)

2.5.1.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Coastal Spatial Action Area (CSAA) is strategically located in the north-western corner of South Africa, bordering the Atlantic Ocean to the west and Namibia to the north and falls within the Namakwa District Municipality. The CSAA consist of the Kamiesberg (Garies), Nama Khoi (Springbok) and Richtersveld (Port Nolloth) Local Municipalities and a small section of the Hantam Local Municipality which borders the Western Cape Province.

The Namakwa District's and the CSAA economy is heavily driven by the mining sector, which contributed R 3.94 billion or 40.4% of the total Gross Value Added (GVA) in 2020. The community services sector follows at 16.7%, and the agriculture sector at 10.2%. Electricity contributes the least, accounting for 1.70% of the total GVA.

Key priority areas for the CSAA include resolving the energy challenge, revitalising agriculture and agro-processing, advancing mineral beneficiation, implementing a higher impact Industrial Policy Action Plan, encouraging private sector investment, moderating workplace conflict, unlocking the potential of SMMEs, state reform, and boosting the role of state-owned companies.

Significant projects include the Boegoebaai Deep Sea Port, Offshore Oil and Gas Exploration and green hydrogen development, alongside growing the ocean's economy and tourism.

Strategic opportunities within CSAA encompass:

- **Orange River/Climate Change:** Initiatives around dam, irrigation, and tourism, including the proposed Vioolsdrift Dam west of Vioolsdrift.

- **Coastline:** Development in mariculture, Boegoebaai harbour, railway, salt production, tourism, and green hydrogen.
- **Renewable Energy:** Local energy policy changes and strategic development interventions.
- **Mining Development:** Legal and structured development of formal and informal mining sectors, with a focus on leveraging the unique copper mining history in towns like Nababeep for mining tourism opportunities.
- **Infrastructure:** Enhancements in transport, roads, and airports, including support for the western section of the Northern Cape Development Corridor along the N14.
- **Special Economic Zones (SEZs):** Corridor development.
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.
- **Gateway Development:** The CSA is regarded as a gateway to Namibia, via the N7, enhancing its strategic importance for trade and cross-border relations.
- **Environment:** Namakwa is known for its unique environmental sensitivity, including areas like the Richtersveld National Park, Namaqua National Park, and other nature reserves. These protected areas are crucial for biodiversity conservation and offer significant tourism potential.
- **Investment Opportunities:** Detailed investment opportunities include the Boegoebaai SEZ and deep-sea port, green hydrogen production, Namakwa Irrigation Scheme, development of Springbok airport, and initiatives around the unique wildflower season and rooibos tea production.

The Boegoebaai SEZ for deep-sea port and green hydrogen production are significant developmental initiatives aimed at positioning Namakwa, the Northern Cape and the CSAA at the forefront of South Africa's emerging green hydrogen economy. Feasibility studies are already underway with major stakeholders like Sasol and the Industrial Development Corporation (IDC).





The Boegoebaai development has been designated a Strategic Integrated Project (SIP 21), an industrial development initiative under the South African National Development Plan.

Boegoebaai has an established hydrogen production plant. The expanded development is expected to include 60,000 ha adjacent to the existing plant.

The proposed SEZ will also feature an electrolyser park; a desalination plant; a green ammonia production plant; a storage facility for green hydrogen and ammonia; a solar, wind and battery park; a supplier park for common components; and a giga-factory comprising an advanced manufacturing site to ramp up the production of electrolyzers.

Tourism, enhanced by the annual spring flower bloom and the renowned wildflower season, as well as rooibos tea production, is critical for the CSA's tourism sector. The district's rich biodiversity, encompassing national parks like the /Ai/Ais/Richtersveld Transfrontier Park, Namakwa National Park, and Tankwa Karoo National Park, as well as other nature reserves, bolsters its appeal for eco-tourism and conservation.

2.5.1.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE COASTAL SPATIAL ACTION AREA

Table 4: Key Development Nodes - Coastal Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		
CAPE TOWN	Various larger and specialist Services are acquired via Cape Town via the N7	→ Logistics Services
Regional Development Anchors / Centres		
Springbok	Regional Development Centre	→ EV Support Development → Weighbridge Development → Public Transport

Settlement	Role	Interventions
		→ Regional Shopping Centre Development at Springbok (N7/N14 intersection) → Truck Stop → Agrihub Development → Airport Upgrading → SMART School Development
Large Service Towns		
Calvinia	Tourism and Local Service Node	→ Basic services infrastructure optimisation → Small Town Regeneration → Tourism Centre Upgrading → Karoo Lamb Value-Adding
Small Service Towns		
Garies	Small Service Node	→ Basic services infrastructure optimisation → Tourism Node and Information Centre Upgrading
Williston	Small Service Node	→ Agriculture Value Adding and Processing
Port Nolloth	Coastal Node	→ Small Town Regeneration → Tourism Development → Small Harbour Development → Housing Development – Boegoebaai Development
Small towns		
Sutherland	Tourism Node	→ Small Town Regeneration → Clear Night Skies Node
Steinkopf	Small Service Node	→ Basic services infrastructure optimisation
Kamieskroon	Tourism Node	→ Basic services infrastructure optimisation → Tourism Information Centre
Niewoudtville	Tourism Node	→ Basic services infrastructure optimisation → Agriculture Value Adding and Processing – FPSU development
Alexander Bay	Tourism Node	→ Tourism Development → Small Harbour Development





Settlement	Role	Interventions
		→ Agriculture Value Adding and Processing – FPSU development

Table 5: Key Development Zones and Corridors - Coastal Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N7	CAPE TOWN Springbok Garies Kamieskroon Steinkopf Vioolsdrift Namibia	→ EV charging station → Gateway Development
N14	Springbok Pofadder Aggeneys	→ EV Charging Station Development → Northern Cape Development Corridor → Railway Upgrading/Development
R382	Steinkopf Port Nolloth Sasolburg	→ Local Corridor → Road maintenance → Upgrading would be required with the development of Boegoebaai Harbour
R27	Vredendal Niewoudtville Calvinia Brandvlei	→ Proposed trade route Cape Town (via Vanrhynsdorp N7) – Upington (via Kakamas and Calvinia) Corridor Development
R63	Williston	→ Karoo Clear Night Skies, SARAO/SALT Tourism Link Road between Westcoast and Central South Africa (N10 and N12) → Road maintenance
Zones		
Coastal Development	Westcoast – Coastline and affected towns	→ Protection against overfishing → Limiting and rehabilitating harmful extraction activities → Protecting the natural environment for eco-tourism activities

Structuring Element	Towns Affected	Interventions
		→ Supporting aquaculture developments → Strictly regulate offshore drilling and exploration



Map 18: Coastal Spatial Action Area (CSAA)

This map illustrates the Coastal Spatial Action Area (CSAA) along the coast of the Republic of Namibia and the Western Cape. The CSAA is delineated by a green boundary. Key towns and locations within the CSAA include Alexander Bay, Richtersveld, Eksteenfontein, Vloosdrif, Port Nolloth, Steinkopf, Nama Khoi, Nabaabep, Springbok, Kleinsee, Hondeklipbaai, Kamieskroon, Kamiesberg, Garies, Hantam, Nieuwoudtville, and Calvinia. The map also shows the surrounding regions: the Republic of Namibia to the north and the Western Cape to the south. A legend in the top right corner defines the NSDF Town Typology, including National Urban Nodes (large orange circle), Regional Development Anchor (orange circle with a star), Rural Service Centres (small orange circle), and Other Towns (black dot). A scale bar at the bottom indicates distances in kilometers (0, 20, 40, 80, 120, 160). A north arrow is located in the bottom right corner.

Regional Spatial Action Areas

Coastal Spatial Action Area (CSAA)

Nodes

- SEZ/IDZ
- Green Hydrogen Energy
- Vioolsdrift Dam
- Import/Export Node
- Bio Energy Potential
- Nuclear Site
- Screened Nuclear Sites
- Hydropower Plant
- Solar Energy Plant
- Wind Energy Plant
- Heritage Sites
- Main Airports
- Aero Drome
- Fiber POP
- Cellphone Towers
- Aquaculture
- Border Posts
- Historical Building/Site
- San Rock Art
- Agri Hubs
- Active Mines
- Harbour
- Non-Priority FPSU
- Priority FPSU

Marine Tourism Projects

- Boat Based Whale Watching
- Coastal Tourism Nodes
- Lobster Processing Plant
- Marine Environment

Major Catalytic Projects

- Seawater Desalination Plant
- Shale Gas Fracking
- Supply Chain Centre
- Namakwa Irrigation Dev.
- Rooibos Tea Project

PSDF Node

- Agri-Tourism
- Clear night skies
- Heritage based Tourism
- Maritime Tourism
- Nature-based

Zones

- Land Reform Farm
- Gamagara Mining Corridor
- Active Mines
- Irrigation Boards
- Vaal-Orange Agricultural Zone
- Trancraa Area
- Dams
- Protected Agricultural Areas
- Marine Protected Areas
- Oil & Gas Exploration
- Focus Areas for Offshore Protection
- Priority Environmental Patrol Areas
- REDZ
- Extensive Agriculture

Marine Ecosystem Threat Status

- Critical
- Endangered

Protected Areas including CBAs

- Protected Area
- Critical Biodiversity Area One
- Critical Biodiversity Area Two

Corridors

- Broadband Lines
- Industrial Corridor
- Proposed Regional Trade Route
- Proposed Boegoebaai Rail Link
- Proposed Connector Rail Route
- Proposed Connector Rail Route
- Iron Ore Railway Line
- Tourism Routes
- National Trade Route
- Regional Trade Route

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.5.2 DOUGLAS TO KAKAMAS SPATIAL ACTION AREA (DKSAA)

2.5.2.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Douglas to Kakamas Spatial Action Area (DKSAA) spans seven Local Municipalities and three Districts, including Khâi-Ma, Kai !Garib, !Kheis, Siyancuma, Siyathemba, Thembelihle, Renosterberg, and part of Sol Plaatjie Local Municipality. These municipalities primarily depend on agricultural and mining sector economic activities, with the exception of Siyathemba and Sol Plaatjie Municipalities, which have more diversified economies but still rely heavily on agriculture and mining.

The **DKSA** serves as an agricultural and trade corridor running east to west through the Northern Cape, connecting the Free State and the CSAA along the Orange and Vaal Rivers. Key priority areas for the district's development include addressing the energy challenge, revitalizing agriculture and agro-processing, advancing mineral beneficiation, implementing a higher-impact Industrial Policy Action Plan, encouraging private sector investment, supporting tourism developments along the Orange and Vaal River and Vanderkloof Dam, unlocking the potential of SMMEs, state reform, and the protection of vital natural resources.

The **DKSAA** is poised for substantial growth and development through several key projects and opportunities. Large-scale renewable energy developments, including solar and wind farms, are set to transform the energy landscape, supported by extensive upgrades to electricity transmission infrastructure. The Namakwa Special Economic Zone (NAMSEZ) in Aggeneys, located along the Northern Cape Development Corridor (N14), will drive economic expansion through its zinc mining project.

The Prieska Power Reserve Project is a catalytic initiative that aims to produce green hydrogen and ammonia by 2025, further enhancing the region's renewable energy capabilities. The PSAA also benefits from various

irrigation schemes that support intensive agriculture along the Orange River, along with agricultural value-adding initiatives that aim to increase economic returns and job creation. Furthermore, tourism developments are expected to leverage the region's natural and cultural assets, contributing to its overall economic growth.

Strategic opportunities within DKSAA encompass:

- **Orange / Vaal River/Climate Change:** Initiatives around dam, irrigation, and tourism
- **Adventure Tourism:** Development along the Orange River (Adventure Hubs).
- **Renewable Energy:** Local energy policy changes and strategic development interventions.
- **Mining Development:** Legal and structured development of formal and informal mining sectors while also supporting the development of mining tourism in historic mining towns.
- **Infrastructure:** Enhancements in transport, roads, and airports, including support for the western section of the Northern Cape Development Corridor along the N14.
- **Special Economic Zones (SEZs):** Namakwa SEZ.
- **Corridor development:** Forming the Gateway of the Northern Cape Development Corridor (N14)
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.
- **Gateway Development:** The DSA is regarded as a gateway to Namibia via the N10 and to the Free State via the N8 and R48, enhancing its strategic importance for trade and cross-border relations.
- **Environment:** The district has various critically important natural ecosystems such as the Orange River and the Vanderkloof Dam among a variety of other important natural assets. These protected areas are crucial for biodiversity conservation and offer significant tourism potential.
- **Investment Opportunities:** Detailed investment opportunities include the Prieska Power Reserve, the Namakwa SEZ around Vedanta Zinc International in Aggeneys, the development of Kimberley airport, and





initiatives aimed at taking advantage of the climate for renewable energy development.

The district's vast area has various important railway lines which play a major role in the Province's and National economy. Major investment projects like the Gamsberg zinc mining project and agricultural initiatives form the backbone of employment.

The Namakwa Special Economic Zone (NAMSEZ) around the zinc mining project and the various renewable energy projects are significant developmental initiatives aimed at positioning the DSA and the Northern Cape at the forefront of South Africa's renewable energy economy.

Tourism, enhanced by the adventure tourism opportunities available along the Orange River is critical for the DSA's tourism sector. The Orange River and Vanderkloof Dam, as well as other nature reserves, bolster its appeal for eco-tourism and conservation.

2.5.2.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE DOUGLAS SPATIAL ACTION AREA

Table 6: Key Development Nodes – Douglas to Kakamas Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes / Cities		
KIMBERLEY	Various larger and specialist Services are acquired in Kimberley.	<ul style="list-style-type: none"> → Maintenance of the link roads towards the N12, and N8 via Douglas and Hopetown. → Logistics Interventions to support freight movement → Airport Upgrading to enhance regional access. → Tourism link
Regional Development Anchors / Centres		
Upington	Regional Development Centre	<ul style="list-style-type: none"> → EV Support Development → Public Transport Development → Renewable Energy Development → Tourism Node and Information Centre Upgrading → Industrial Corridor Support

Settlement	Role	Interventions
		<ul style="list-style-type: none"> → Grid Infrastructure Development → Logistics Interventions → Agriculture Value Adding and Processing → Government Precinct Development
Small Service Towns		
Kakamas	Small Service Node & Agriculture Development Node	<ul style="list-style-type: none"> → Agriculture Value Adding and Processing → Renewable Energy Development → Heritage Tourism Development
Groblershoop	Small Service Node	→ Agriculture Value Adding and Processing – FPSU Development
Griqua Town	Small Service Node	→ Basic services infrastructure optimisation
Douglas	Small Service Node & Agriculture Development Node	<ul style="list-style-type: none"> → Agriculture Value Adding and Processing – FPSU Development → Basic services infrastructure optimisation
Ritchie		
Hopetown		
Petrusville	Agri Node	<ul style="list-style-type: none"> → Agri Hub Development → Basic services infrastructure optimisation
Prieska	Small Service Node & Renewable Energy Hub	<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Agriculture Value Adding and Processing
Small towns		
Aggeneys	Mining Node	<ul style="list-style-type: none"> → Basic services infrastructure optimisation → SEZ/IDZ Development → Renewable Energy Development
Pofadder	Small Service Node	→ Basic services infrastructure optimisation
Keimoes	Small Service Node	<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Agriculture Value Adding and Processing





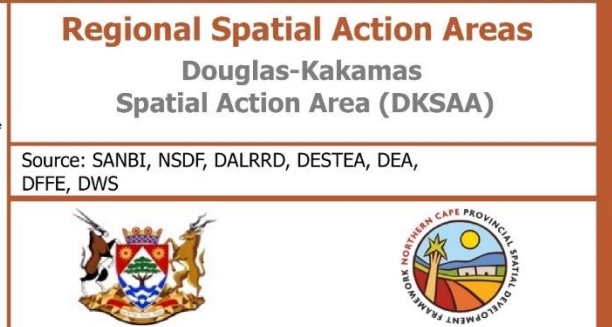
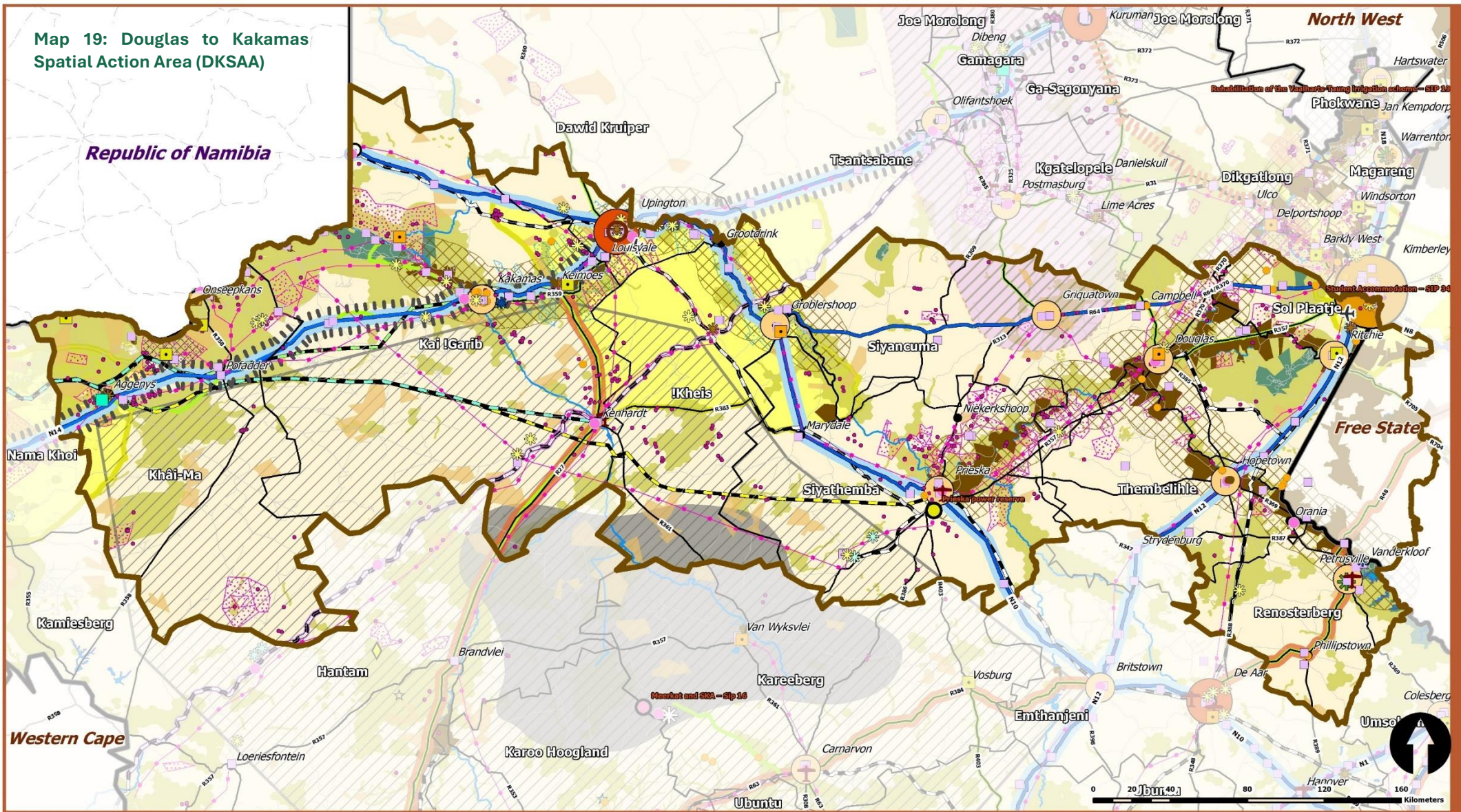
Table 7: Key Development Zones and Corridors -Douglas to Kakamas Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N14	Upington Vryburg Aggeneys Pofadder Kakamas Keimoes	<ul style="list-style-type: none"> → Northern Cape Development Corridor → EV Charging Station Development → Railway Upgrading/Development → Road Upgrading (N14) → Develop Multi-Modal Transport Hubs → Support access to Industrial Parks and Zones
N10	Upington Nxuba (Cradock) Groblershoop Prieska De Aar	<ul style="list-style-type: none"> → EV Charging Station Development → Railway Upgrading/Development → Northern Cape Development Corridor Development → International Trade Route Development with Namibia → Gateway Development
N12	KIMBERLEY Ritchie Hopetown Western Cape and Northwest Province Linkage	<ul style="list-style-type: none"> → EV Charging Station Development → Cross-border corridor coordination with North West
R27	Keimoes Kenhardt Calvinia	<ul style="list-style-type: none"> → Proposed trade route → Cape Town (via Vanrhynsdorp N7) – Upington (via Kakamas and Calvinia) Corridor Development → Tourism corridor development
N8	KIMBERLEY BLOEMFONTEIN Groblershoop Griquatown Campbell	<ul style="list-style-type: none"> → Northern Cape Development Corridor linkage → Tourism Route Development
R357/R358	KIMBERLEY	→ Road Maintenance

Structuring Element	Towns Affected	Interventions
	Campbell Douglas	→ Trade and Tourism Route Development
		→
R48	De Aar Petrusville Phillipstown Free State Province	<ul style="list-style-type: none"> → Regional Trade Route Development → Tourism Route Development → Road Maintenance → Cross Border Coordination with Free State
R359	Upington Keimoes Kakamas	<ul style="list-style-type: none"> → Alternative Route Development → Tourism Route Development
Zones		
Agriculture Development Zone	Upington Keimoes Kakamas Groblershoop Ritchie Hopetown Douglas	<ul style="list-style-type: none"> → Protection of High Potential Agricultural Land (PAAs) → Agro-processing → Agripark Development → Rural Road Maintenance → Implement Precision Agriculture and climate-smart agriculture → Develop Water Storage Solutions and upgrading of Irrigation Schemes → Enhance Market Access → Enhance Rural Infrastructure → Support and Prioritise Rural Development Projects
Renewable Energy Development Zone	Upington Groblershoop Kenhardt Keimoes	<ul style="list-style-type: none"> → Upgrading of Electricity Transmission Networks → Enhance Access Roads → Support Large-Scale Solar Farms → Promote Hybrid Energy Systems → Develop Local Supply Chains → Support Green Technology Innovation → Develop Community Benefit Programs → Training of the Local Workforce



Map 19: Douglas to Kakamas Spatial Action Area (DKSAA)





2.5.3 GAMAGARA SPATIAL ACTION AREA (GSAA)

2.5.3.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Gamagara Spatial Action Area (GSAA) encompasses the entirety of Gamagara, Kgatelopele, and Dikgatlong Local Municipalities, along with parts of Ga-Segonyana and Tsantsabane Local Municipalities. This area borders the North West Province and is the third smallest Spatial Action Area. Historically, the GSA has been characterized by the Gamagara Mining Corridor, which has significantly contributed to the local economies of the municipalities within the region. However, this corridor has now been replaced by a new Provincial Spatial Action Area (PSAA) that aligns with cadastral boundaries rather than schematic diagrams.

The region faces considerable challenges, particularly due to its heavy reliance on the mining sector. With many mines at risk of closure in the next decade, the GSA's ability to sustain its current growth trajectory is under threat. Additionally, the Asbestos No-Go Area imposes further constraints on development by limiting growth in a substantial portion of the region.

To address these challenges and foster sustainable development, the updated PSAA includes several key interventions. First, there is a pressing need to tackle energy constraints by investing in renewable energy projects and upgrading electricity transmission infrastructure. This will support broader economic activities and improve regional infrastructure.

Economic diversification and value addition are also critical. Strategies should focus on reducing reliance on mining by promoting sectors such as agriculture, agro-processing, and manufacturing. The development of industrial parks and support for small and medium-sized enterprises (SMEs) are essential for achieving this goal. Additionally, advancing mineral beneficiation will add value to extracted minerals and enhance local economic benefits.

Revitalizing agriculture is another priority. Programs should support and modernize agriculture, including irrigation schemes and technological advancements, to boost productivity. Agro-processing industries should be developed to add value to agricultural products and create local job opportunities.

Encouraging private sector investment through incentives and support measures will stimulate economic development. Implementing a higher-impact Industrial Policy Action Plan will further foster industrial growth and innovation in the region.

The rehabilitation of the Asbestos No-Go Area is crucial to mitigate environmental and health risks and explore future land use opportunities. Special Economic Zones and township development projects, such as the Kathu Special Economic Zone/Industrial Development Zone and PSHDA township projects, should continue to attract investment and improve living conditions.

Overall, the updated PSAA replaces the Gamagara Mining Development Corridor with a more sustainable and diversified approach. This strategy integrates economic resilience and growth, addressing the region's reliance on mining and aligning with cadastral boundaries for improved spatial planning.

Strategic opportunities within GSAA encompass:

- **Tourism:** Development of tourist attractions along the identified tourism corridors.
- **Renewable Energy:** Local energy policy changes and strategic development interventions.
- **Mining Development:** Legal and structured development of formal and informal mining sectors while also supporting the development of mining tourism in historic mining towns.
- **Infrastructure:** Enhancements in transport, roads, and rail, including support for the northeastern section of the Northern Cape Development Corridor along the N14.





- **Special Economic Zones (SEZs):** Kathu Industrial Park, Kuruman Industrial Development Precinct.
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.
- **Environment:** The GSA has various natural environments of ecological importance, especially outside the mining corridor. These protected areas are crucial for biodiversity conservation and offer significant tourism potential.
- **PHSHDA Township Developments:** The (Priority Human Settlements and Housing Development Areas) PSHDA township developments identified in Kathu and Postmasburg provide opportunities to create viable and sustainable communities that can stimulate growth in these towns.
- **Regional Trade Route Development:** The development of a shorter route between Kuruman and Barkley West along the R31 may unlock potential regional trade between Kimberley and further north towards Zimbabwe
- **Investment Opportunities:** Detailed investment opportunities include the Kathu SEZ/IDZ, Kathu and Postmasburg PSHDA township developments, the mining industry and the renewable energy sector.
- **Land Reform Farms:** The various land reform farms in the GSA provide the opportunity for meaningful agriculture production and the development of new farmers that can unlock the potential of previously underutilised land.

The region is highly dependent on the mining sector and requires infrastructure investment to sustain the existing mines and provide a conducive business environment for new mines in the area. The rehabilitation of old asbestos mines is critical to allow for development in the current No-go areas. Projects such as the Kathu IDZ and renewable energy generation plants will assist in sustaining the economy of the region while also unlocking new avenues of economic activity.

2.5.3.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE GAMAGARA SPATIAL ACTION AREA

Table 8: Key Development Nodes - Gamagara Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		
KIMBERLEY	Various larger and specialist Services are acquired in Kimberley.	<ul style="list-style-type: none"> → Mineral Value Adding and Financial Services Support → Diversifying Industries → Knowledge and Innovation support. → Support for Small and Medium Enterprises (SMEs) → Skills and Business Incubators
Regional Development Anchors / Centres		
Kuruman	Regional Development Centre	<ul style="list-style-type: none"> → Service and General Industries support → Knowledge and Innovation support. → Human Resources Development
Small Service Towns		
Olifantshoek	Small Mining Node	<ul style="list-style-type: none"> → Industrial Corridor Support → Basic services infrastructure optimisation → Mining Development
Postmasburg		<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Mining Development → PSHDA Development
Kathu		<ul style="list-style-type: none"> → Basic services infrastructure optimisation → IDZ Development → PSHDA Development
Delportshoop		<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Agriculture Value Adding and Processing – FPSU Development → Mining Development



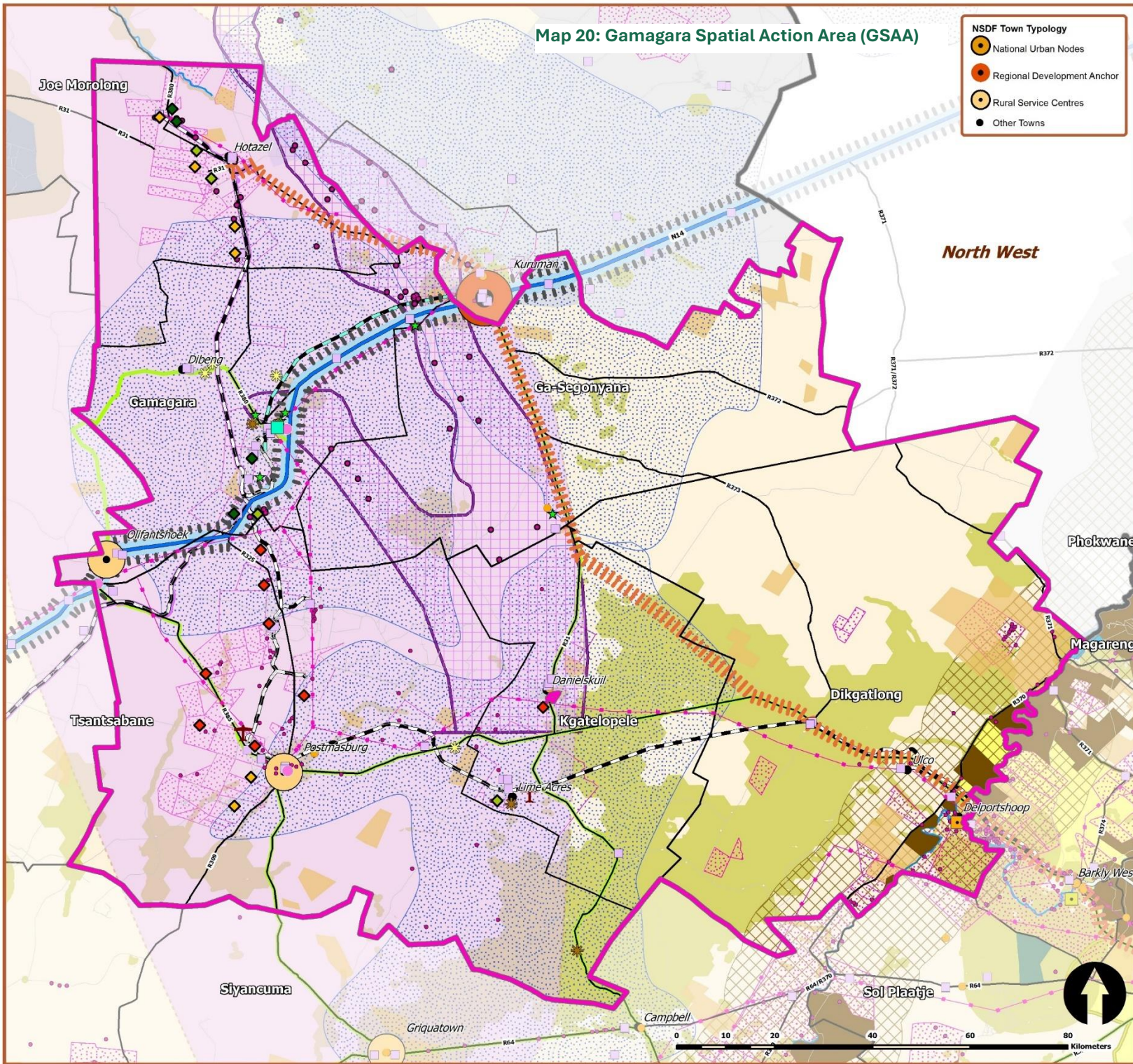


Table 9: Key Development Zones and Corridors - Gamagara Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N14	Kuruman Olifantshoek Kathu	<ul style="list-style-type: none"> → EV Charging Station Development → Northern Cape Development Corridor Development → Railway Upgrading/Development
R31	Kuruman Delporthoop Postmasburg Danielskuil Ulco	<ul style="list-style-type: none"> → Proposed Regional Trade Route Development → Route Upgrading and Maintenance – Link to N8
R385	Olifantshoek Postmasburg Lime Acres Campbell	<ul style="list-style-type: none"> → Road Maintenance → Route Upgrading and Maintenance – Link to N8
R325 / R383	Postmasburg Griquatown	<ul style="list-style-type: none"> → Road Maintenance → Link Road to N8
Zones		
Mining-agri trade-off Zones	All areas within the Gamagara Mining Corridor	<ul style="list-style-type: none"> → Prioritise agricultural water use, above mining use → Prioritise water reuse for mining activities. → Reduce particle impact on agricultural activities.
Gamagara mining corridor	Kuruman Postmasburg Olifantshoek Beeshoek Kathu	<ul style="list-style-type: none"> → Prioritise investment in economic diversification.



Map 20: Gamagara Spatial Action Area (GSAA)



- NSDF Town Typology**
- National Urban Nodes
 - Regional Development Anchor
 - Rural Service Centres
 - Other Towns

Regional Spatial Action Areas Gamagara Spatial Action Area (GSAA)

- Nodes**
- SEZ/IDZ
 - Import/Export Node
 - Bio Energy Potential
 - Hydropower Plant
 - Solar Energy Plant
 - Wind Energy Plant
 - Main Airports
 - Aero Drome
 - Fiber POP
 - Cellphone Towers
 - Aquaculture
 - Border Posts
 - Heritage Sites
 - Historical Building/Site
 - San Rock Art
 - Active Mines
 - Agri Hubs
 - SKA Core Site
 - Tourist Attractions
 - Non-Priority FPSU
 - Priority FPSU
- Major Catalytic Projects**
- Seawater Desalination Plant
 - Shale Gas Fracking
 - Supply Chain Centre
 - Namakwa Irrigation Dev.
 - Rooibos Tea Project
- Mining Closure Risk**
- High Risk
 - Low Risk
 - Medium Risk
 - Very Low Risk
- Tourism Node Type**
- Agri-Tourism
 - Clear night skies
 - Heritage based Tourism
 - Maritime Tourism
 - Nature-based
- Zones**
- Land Reform Farm
 - Gamagara Mining Corridor
 - Active Mines
 - Irrigation Boards
 - Vaal-Orange Agricultural Zone
 - Dams
 - Protected Agricultural Areas
 - REDZ
 - Extensive Agriculture
- Protected Areas incl CBAs**
- Protected Area
 - Critical Biodiversity Area One
 - Critical Biodiversity Area Two
 - Asbestos No-go Area
 - Traditional Authority Areas
- Corridors**
- Broadband Lines
 - Industrial Corridor
 - Proposed Regional Trade Route
 - Proposed Boegoebaai Rail Link
 - Proposed Connector Rail Route
 - Proposed Connector Rail Route
 - Iron Ore Railway Line
 - Tourism Routes
 - National Trade Route
 - Regional Trade Route

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.5.4 KALAHARI SPATIAL ACTION AREA (KHSAA)

2.5.4.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Kalahari Spatial Action Area (KHSAA) encompasses parts of Tsantsabane and Joe Morolong Local Municipalities, as well as the entire Dawid Kruiper Municipality. This predominantly rural region exhibits minimal urban development, with its towns primarily focused on agriculture and tourism, and limited engagement in other economic sectors.

Strategically positioned as a gateway with border post links to Namibia and Botswana, the KHSAA is vital for regional connectivity. Key development priorities include advancing renewable energy projects, supporting agriculture and tourism growth, unlocking the potential of Small, Medium, and Micro Enterprises (SMMEs), and safeguarding essential natural resources.

The eastern Kalahari is a water-stressed region, entirely dependent on groundwater for its water supply. This resource is crucial for providing safe drinking water to both urban and rural inhabitants. Over-exploitation, driven by the complex nature and behaviour of groundwater, has been a concern. Efficient and sustainable groundwater management is essential to ensure the region's long-term development. Ongoing efforts to enhance understanding through hydrogeological studies are necessary to support sustainable use.

The Kalahari is home to two of the planet's oldest communities: the Mier and !Khomani San. Historically, hunter-gatherers, in these communities possess profound knowledge of living in balance with their environment. The !Khomani Cultural Landscape is designated as the 9th South African World Heritage Site by UNESCO.

The Kalahari Desert spans parts of Botswana, Namibia, and South Africa, covering nearly one million square kilometres. As one of the largest deserts

in the world, it is characterized by reddish-brown sand and an arid climate, receiving an average of only 7 cm of rainfall annually. Despite its harsh environment, the Kalahari supports unique flora such as the Hoodia cactus and wild melons, and fauna including gemsboks, cheetahs, and warthogs. The region's nomadic Bushmen peoples speak languages distinguished by clicking sounds, reflecting their deep cultural heritage.

In summary, the KHSAA's development strategy should integrate advancements in renewable energy, support for agriculture and tourism, and the protection of natural resources, while addressing water scarcity and honouring the rich cultural heritage of its indigenous communities.

Strategic opportunities within KHSAA encompass:

- **Tourism:** Supporting tourism activities and routes in the Kgalagadi Transfrontier Park and other protected and environmentally sensitive areas.
- **Renewable Energy:** Local energy policy changes and strategic development interventions.
- **Mining Development:** Legal and structured development of formal and informal mining sectors while also supporting the development of mining tourism in historic mining towns.
- **Infrastructure:** Enhancements in transport, roads, and airports, including support for the northern section of the Northern Cape Development Corridor along the N14.
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.
- **Gateway Development:** The KHSAA is regarded as a gateway to Namibia and Botswana via the R31 and R380, enhancing its strategic importance for trade and cross-border relations.
- **Environment:** The district has various critically important natural ecosystems such as the Kgalagadi Transfrontier Park and the Tswalo Game Reserve along with various other significant natural ecosystems.
- **Land Reform Farms:** The various land reform farms in the KHSAA provide the opportunity for meaningful agriculture production and the development of new farmers that can unlock the potential of previously underutilised land.





→ **Investment Opportunities:** Bloodhound initiative

The action area's rural nature and lack of large urban centres limits its development potential outside of mining, agriculture and tourism. The Kgalagadi Transfrontier Park is the region's largest asset and contributes a large portion towards the tourist activity within the region. Therefore, the conservation of the Transfrontier Park and other natural resources is vital to support the tourism industry.

The connections with Namibia and Botswana have the potential for growth and increasing trade along the routes running through the KHSAA which could help grow the local economy.

2.5.4.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE KALAHARI SPATIAL ACTION AREA

Table 10: Key Development Nodes - Kalahari Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		
KIMBERLEY	Various larger and specialist Services are acquired in Kimberley.	<div>➔ Renewable Energy Developments</div> <div>➔ Logistics Interventions</div> <div>➔ Airport Upgrading</div> <div>➔ Heritage Tourism Development</div>
Regional Development Anchors / Centres		
Kuruman	Regional Development Centre	<div>➔ Service and General Industries support</div> <div>➔ Human Resources Development</div>
Upington		<div>➔ Tourism Development and Linkages</div> <div>➔ Water Services Development</div>
Small towns		
Hotazel	Small Mining Node	<div>➔ Basic services infrastructure optimisation</div> <div>➔ Mining Development</div>
Van Zylsrus	Small Service Node	<div>➔ Renewable Energy Development</div> <div>➔ Basic services infrastructure optimisation</div>
Rietfontein	Small Cultural Village	<div>➔ Border Post Optimisation & Support</div>

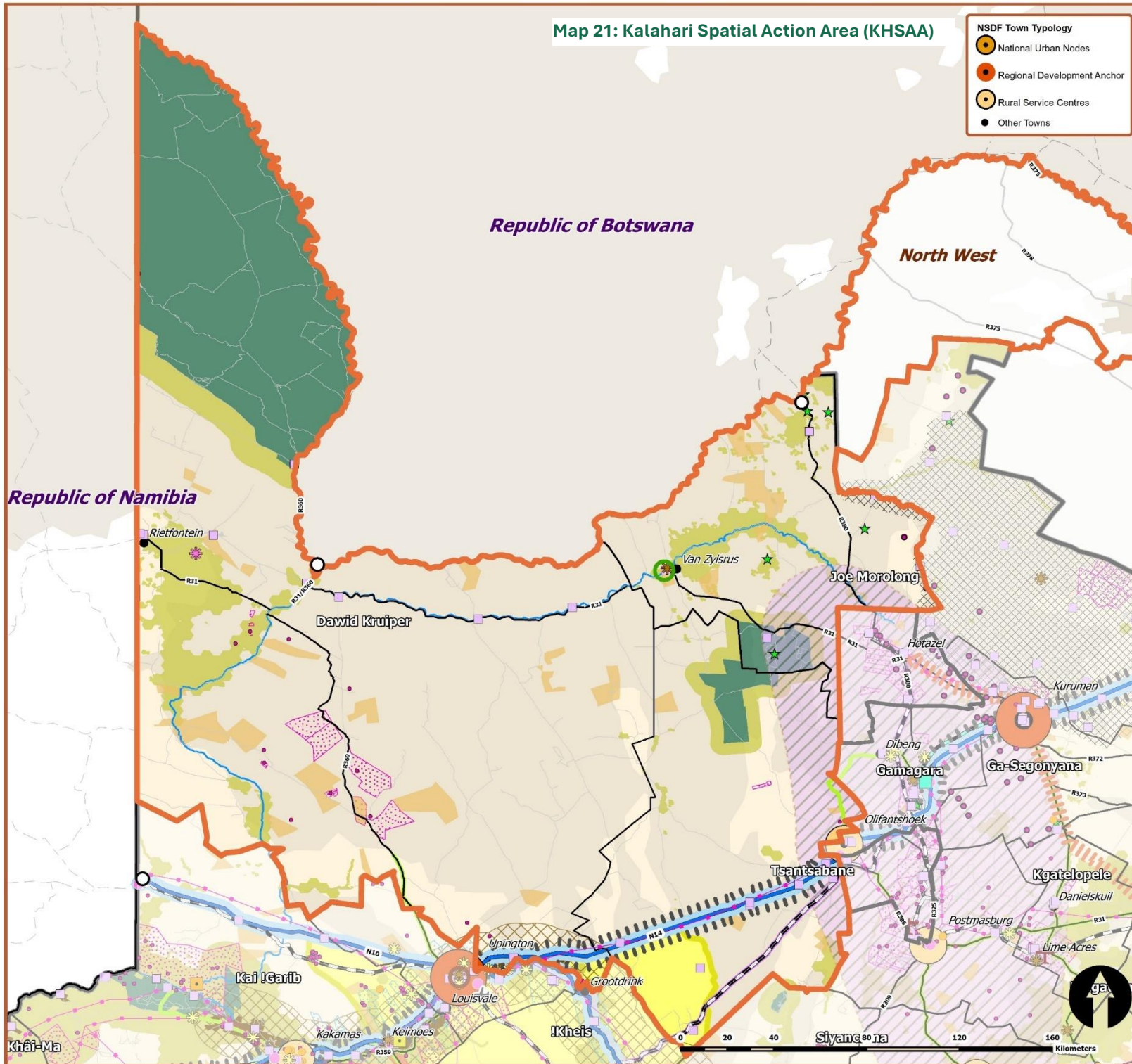
		→ Basic services infrastructure optimisation
--	--	--

Table 11: Key Development Zones and Corridors - Kalahari Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N10	Upington Olifantshoek	<ul style="list-style-type: none"> → EV Charging Station Development → Railway Upgrading/Development → International Trade Route Development with Namibia
R31	Hotazel	<ul style="list-style-type: none"> → Tourism Development Route towards Kgalagani Transfrontier Park
Zones		
Renewable Energy Development Zone	Upington	<ul style="list-style-type: none"> → Enhance Access Roads → Support Large-Scale Solar Farms → Promote Hybrid Energy Systems → Support Green Technology Innovation → Develop Community Benefit Programs → Training of the Local Workforce



Map 21: Kalahari Spatial Action Area (KHSAA)



- NSDF Town Typology**
- National Urban Nodes
 - Regional Development Anchor
 - Rural Service Centres
 - Other Towns

Regional Spatial Action Areas Kalahari Spatial Action Area (KHSAA)

- Nodes**
- SEZ/IDZ
 - Import/Export Node
 - Bio Energy Potential
 - Hydropower Plant
 - Solar Energy Plant
 - Wind Energy Plant
 - Main Airports
 - Aero Drome
 - Fiber POP
 - Cellphone Towers
 - Aquaculture
 - Border Posts
 - Heritage Sites
 - Historical Building/Site
 - San Rock Art
 - Active Mines
 - Bloodhound Initiative
 - Agri Hubs
 - SKA Core Site
 - Tourist Attractions
 - Non-Priority FPSU
 - Priority Farmer FPSU
- Major Catalytic Projects**
- Seawater Desalination Plant
 - Shale Gas Fracking
 - Supply Chain Centre
 - Namakwa Irrigation Dev.
 - Rooibos Tea Project
- PSDF Node**
- Agri-Tourism
 - Clear night skies
 - Heritage based Tourism
 - Maritime Tourism
 - Nature-based
- Zones**
- Land Reform Farm
 - Gamagara Mining Corridor
 - Active Mines
 - Irrigation Boards
 - Vaal-Orange Agricultural Zone
 - Dams
 - Trancraa Area
 - Protected Agricultural Areas
 - REDZ
 - Kalahari Basin
 - Extensive Agriculture
- Protected Areas Including CBAs**
- Protected Area
 - Critical Biodiversity Area One
 - Critical Biodiversity Area Two
- Corridors**
- Broadband Lines
 - Industrial Corridor
 - Proposed Regional Trade Route
 - Proposed Boegoebaai Rail Link
 - Proposed Connector Rail Route
 - Proposed Connector Rail Route
 - Iron Ore Railway Line
 - Tourism Routes
 - National Trade Route
 - Regional Trade Route

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





2.5.5 KAROO SPATIAL ACTION AREA (KSAA)

2.5.5.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Karoo Spatial Action Area (KSAA) spans the southern boundary of the province and consists of five local municipalities namely Hantam, Kareeberg, Karoo Hoogland, Ubuntu, Emthanjeni and Umsobomvu.

The **KSAA** serves as a gateway to the Northern Cape from the Western and Eastern Cape and as an east-west corridor. Key priority areas for the district's development include addressing the energy challenge, revitalizing agriculture and agro-processing, advancing mineral beneficiation, implementing a higher-impact Industrial Policy Action Plan, encouraging private sector investment, supporting tourism developments, unlocking the potential of SMMEs, state reform, and the protection of vital natural resources.

Significant projects in the KSAA include opportunities related to the Square Kilometre Array (SKA), various renewable energy developments, clear night sky tourism, Karoo Lamb and logistical developments.

Strategic opportunities within KSAA encompass:

- **Clear Night Sky Tourism:** Initiatives around utilising the clear night sky experienced throughout the region and protecting it against light pollution.
- **Renewable Energy:** Local energy policy changes and strategic development interventions.
- **Mining Development:** Legal and structured development of formal and informal mining sectors while also supporting the development of mining tourism in historic mining towns.
- **Infrastructure:** Enhancements in transport, roads, and airports, including support for the various National Trade Routes crossing the region.
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.

- **Gateway Development:** The KSAA is regarded as a gateway to two other provinces enhancing its strategic importance for trade and cross-border relations.
- **Environment:** The district has various critically important natural ecosystems. These protected areas are crucial for biodiversity conservation and offer significant tourism potential.
- **Investment Opportunities:** Detailed investment opportunities include Meerkat SKA, shale gas fracking and initiatives aimed at taking advantage of the climate for renewable energy development.
- **Agriculture Development:** Ostrich Farming, Game Farming and Karoo Lamb marketing and processing

The KSAA's vast area has various important railway lines and national roadways which play a major role in the Province's and National economy. Major investment projects like the South African Radio Astronomy Observatory (SAROA) sites support the eco-tourism industry within the district which plays a major role in the employment of residents.

2.5.5.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE KAROO SPATIAL ACTION AREA

Table 12: Key Development Nodes - Karoo Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		
CAPE TOWN	Various larger and specialist Services are acquired in Cape Town via the N1.	<ul style="list-style-type: none"> → Tourism Development → Regional Access → Logistics Support → Trade support → Regional services
Regional Development Anchors / Centres		
Calvinia	Regional Service Centre & Tourism Node	<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Small Town Regeneration → Tourism Centre Upgrading → Karoo Lamb Value-Adding
De Aar	Regional Service Centre	<ul style="list-style-type: none"> → Renewable Energy Development → Agriculture Value Adding and Processing – FPSU development





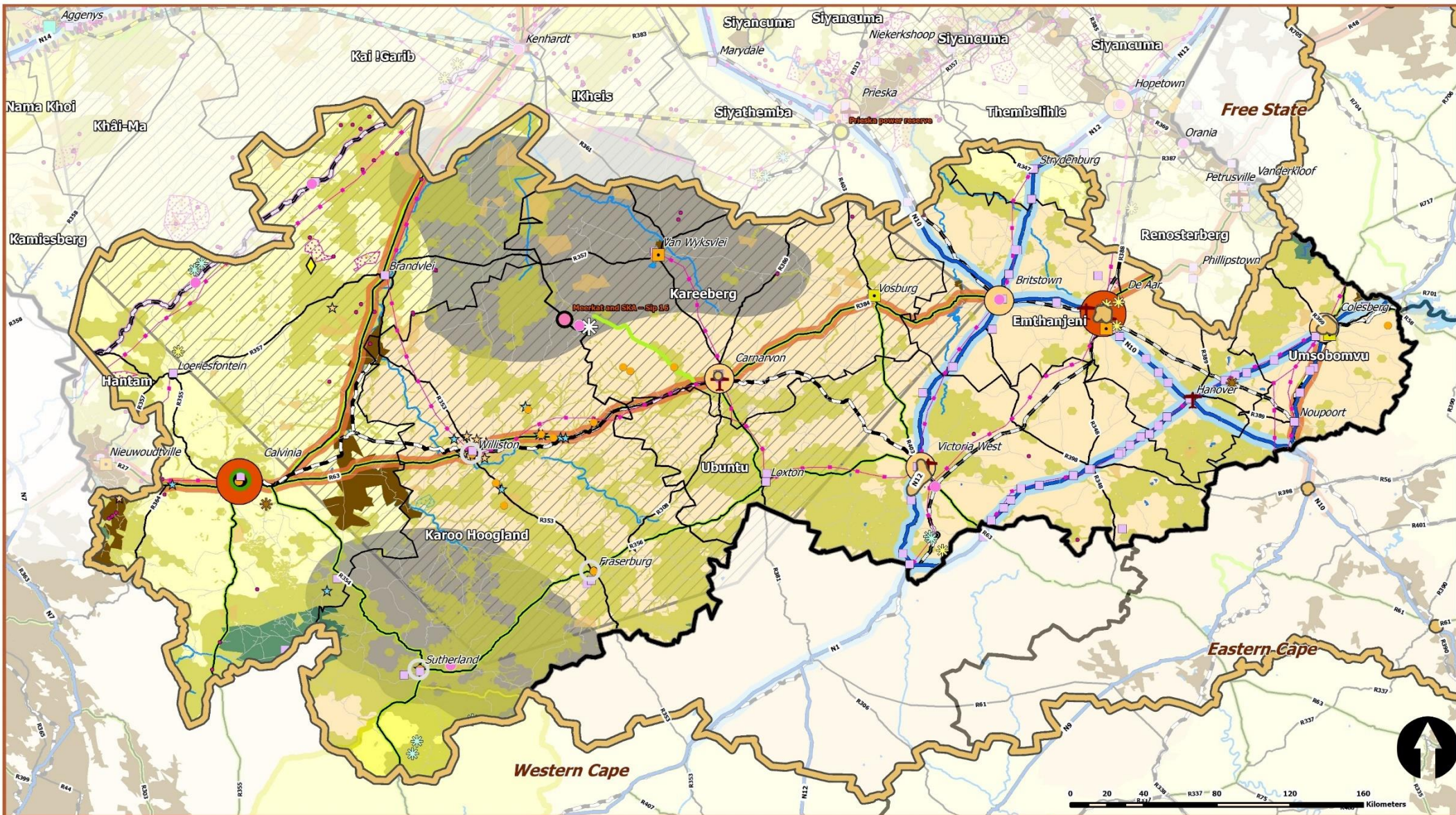
		<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Logistics Support
Small Service Towns		
Carnarvon	Small Service Node	<ul style="list-style-type: none"> → Basic services infrastructure optimisation
Britstown		
Victoria West		
Colesberg	Tourism Node	<ul style="list-style-type: none"> → Basic services infrastructure optimisation → Agriculture Value Adding and Processing – FPSU development
Small towns		
Sutherland	Tourism Node	<ul style="list-style-type: none"> → Small Town Regeneration → Clear Night Sky Tourism Initiatives
Williston		<ul style="list-style-type: none"> → Agriculture Value Adding and Processing → Clear Night Sky Tourism Initiatives
Fraserburg		<ul style="list-style-type: none"> → Clear Night Sky Tourism Initiatives

Table 13: Key Development Zones and Corridors - Karoo Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N1	Colesberg Hanover	<ul style="list-style-type: none"> → EV charging station → Gateway Development → Logistics Support Developments → Railway Upgrading/Development
N10/N9	De Aar Noupoort Britstown Colesberg	<ul style="list-style-type: none"> → EV Charging Station Development → Railway Upgrading/Development → Logistics Support Developments → Gateway Development
N12	Victoria West Britstown Strydenburg	<ul style="list-style-type: none"> → EV Charging Station Development → Logistics Support Developments
R27	Calvinia Brandvlei	<ul style="list-style-type: none"> → Proposed trade route → Cape Town (via Vanrhynsdorp N7) – Upington (via Kakamas and Calvinia) Corridor Development → Tourism Corridor

R63	Williston Carnarvon Victoria West	<ul style="list-style-type: none"> → Cross-border corridor coordination with Eastern Cape → Road maintenance → Tourism Corridor
R384	Carnarvon Britstown Vosburg	<ul style="list-style-type: none"> → Road maintenance → Tourism Corridor → Regional Trade Route Development
R403	Victoria West Vosburg	<ul style="list-style-type: none"> → Road maintenance → Tourism Corridor
Zones		
Clear Night Sky Zone		<ul style="list-style-type: none"> → Promote astronomy-based tourism → Promote the establishment of hospitality and related industries in support of clear night sky tourism
Karoo Lamb		<ul style="list-style-type: none"> → Support the farmers in climate change adaption methods to limit the impact varying climate conditions on livestock.
SKA		<ul style="list-style-type: none"> → Promote research activities relating to the transition of agricultural to conservation land uses. → Ensure land use changes do not affect the operation of the SKA and MeerKat telescopes.





Nodes

- SEZ/DZ
- Import/Export Node (NSDF 2022)
- Non-Priority FPSU
- Priority FPSU
- Hydropower Plant
- Bio Energy Potential
- Solar Energy Plant
- Wind Energy Plant
- Main Airports
- Aero Drome
- Fiber POP
- Cellphone Towers
- Aquaculture
- Border Posts
- Heritage Sites
- Historical Building/Site
- San Rock Art
- Active Mines
- Bloodhound Initiative
- Agri Hubs
- SKA Core Site
- Tourist Attractions
- Harbour

Major Catalytic Projects

- Seawater Desalination Plant
- Shale Gas Fracking
- Supply Chain Centre
- Namakwa Irrigation Development
- Rooibos Tea Project
- Meerkat and SKA
- Prieska Power Reserve

Tourism Node Type

- Agri-Tourism
- Clear night skies
- Heritage based Tourism
- Maritime Tourism
- Nature-based

NSDF Town Typology

- National Urban Nodes
- Regional Development Anchor
- Rural Service Centres
- Other Towns

Zones

- Karoo Lamb Areas
- Schedule A
- Schedule B
- Land Reform Farm
- Gamagara Mining Corridor
- Active Mines
- Irrigation Boards
- Vaal-Orange Agricultural Zone
- Dams
- Trancraa Area
- Protected Agricultural Areas
- REDZ

Protected Areas including CBAs

- Protected Area
- Critical Biodiversity Area One
- Critical Biodiversity Area Two
- Clear Night Skies
- Highest
- SKA Area

Corridors

- Broadband Lines
- Industrial Corridor
- Proposed Regional Trade Route
- Proposed Beogobaal Rail Link
- Proposed Connector Rail Route
- Proposed Connector Rail Route
- Iron Ore Railway Line
- Tourism Routes
- National Trade Route
- Regional Trade Route

Map 22: Karoo Spatial Action Area (KSAA)

Regional Spatial Action Areas

Karoo Spatial Action Area (KSAA)

Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS



2.5.6 RURAL SPATIAL ACTION AREA (RSAA)

2.5.6.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Rural Spatial Action Area (RSAA) is characterized by its predominantly rural nature, with a landscape dotted by villages and limited infrastructure. This area encompasses the Joe Morolong Local Municipality and part of the Ga-Segonyana Local Municipality, reflecting a township economy where traditional sectors like agriculture and mining play a crucial role. The region faces significant challenges related to underdeveloped infrastructure and limited economic diversification but holds substantial potential for growth through targeted strategic interventions.

Efforts to enhance the region's economic prospects must address the disparities in infrastructure and leverage the area's inherent assets. Strategic development can revitalize the rural economy, support local communities, and promote sustainable growth. By focusing on infrastructure improvements, economic diversification, and leveraging local resources, the RSAA can transform its traditional economy and create new opportunities for residents.

Key priorities for the district's development include:

- Focus on enhancing agricultural practices and agro-processing.
- Develop strategies to improve the value addition of mined resources.
- Foster an environment conducive to private investments.
- Support and grow Small, Medium, and Micro Enterprises.
- Implement necessary reforms in state land management.
- Ensure the conservation and sustainable use of environmental resources.

Strategic opportunities within RSAA encompass:

- The N14 Industrial Development Corridor is a strategic initiative aimed at boosting economic growth in the Northern Cape Province. The

master plan focuses on localizing and diversifying the regional economy through the development of several key nodes:

- Kathu Industrial Park: A hub for industrial activities.
- Upington Industrial Park: Supports industrial expansion and diversification.
- Namakwa Special Economic Zone (SEZ): Facilitates economic activities with special incentives.
- Boegoebaai Deep Port Harbour: Enhances import and export capabilities.

Township/Rural Economies

- Refers to enterprises and markets within townships that cater to local community needs, characterized by high levels of poverty and unemployment.
- Improve links between traditional areas, rural settlements, higher-order urban centres, and economic systems using road and rail networks.

Land Ownership and Development

- Approximately 40% of the land within the area is privately owned, with the remaining 60% under state control, including several traditional authorities.

Infrastructure and Investment

- Align with the National Spatial Development Framework (2022) to improve quality of life and economic well-being through accelerated investment in rural infrastructure.
- Prioritize investment in transport, water supply, and public services to support rural economies and community access.
- Focus on utilizing underutilized land, expanding high-value crop production, and enhancing agro-processing.





Agriculture and Agro-Processing

- Strengthen existing agri-parks with Farmer Production Support Units, Agri-hubs, and Rural Urban Market Centres.
- Accelerate the construction and maintenance of infrastructure to support agriculture, including irrigation schemes and storage facilities.

Infrastructure Development

- Enhance water supply and irrigation in rural areas through the National Water Resources Strategy (2022).
- Develop energy infrastructure to improve quality of life and support rural economic activities.

Government Programmes

- Strengthen cooperatives and enterprises linked to agricultural production and market access.
- Support wetland rehabilitation and employment creation through environmental programs.
- Target infrastructure projects and job creation, focusing on rural and marginalized communities.
- Invest in rural tourism and sports programs to enhance economic opportunities and community development.
- Prioritising Government support services Precinct in Mothibstad to service the action area.

2.5.6.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE RURAL SPATIAL ACTION AREA

Table 14: Key Development Nodes - Rural Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		
KIMBERLEY	Various larger and specialist Services are acquired in Kimberley.	<ul style="list-style-type: none"> → Renewable Energy Developments → Logistics Interventions → Airport Upgrading → Heritage Tourism Development

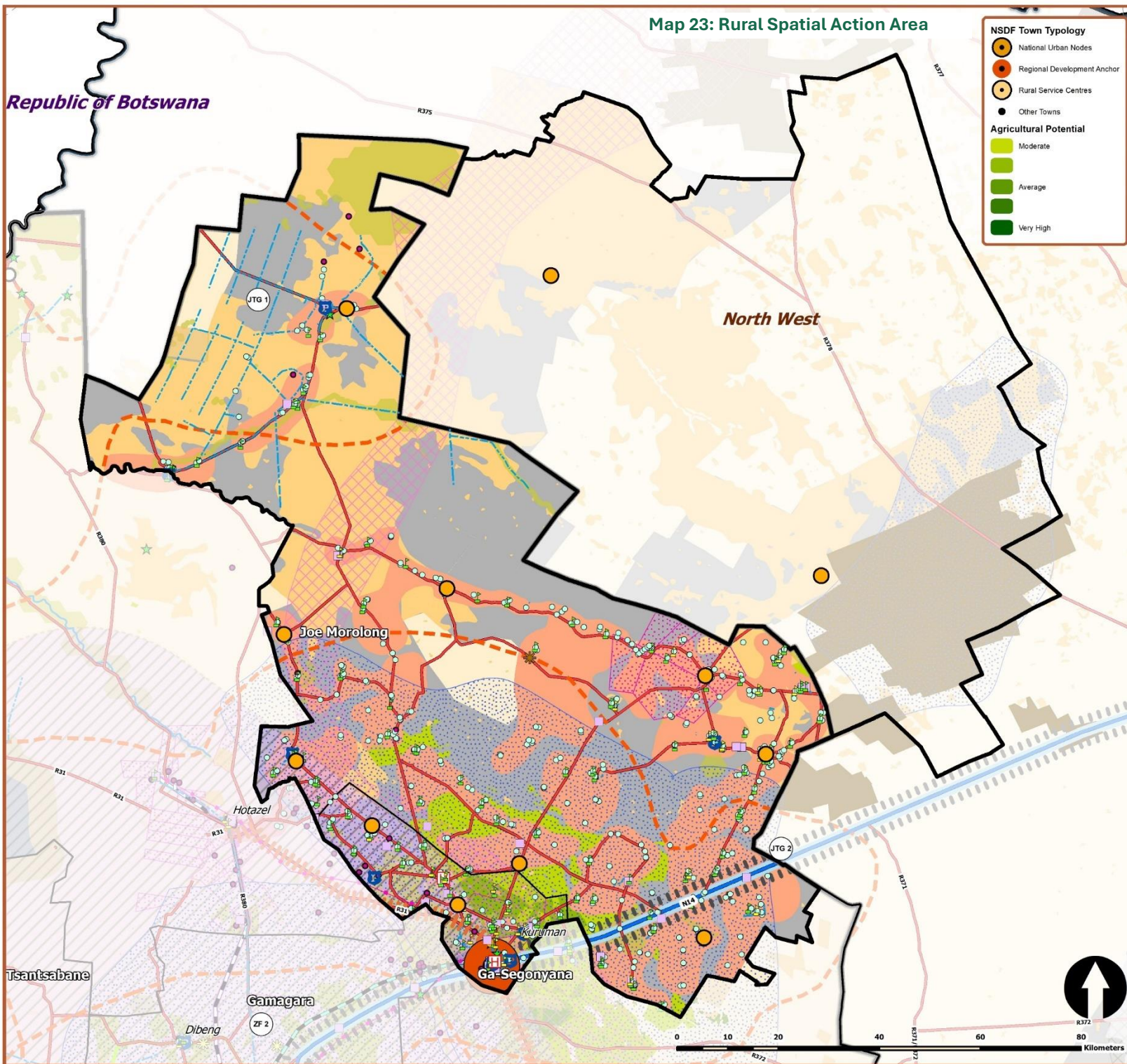
Regional Development Anchors / Centres

Kuruman	Regional Development Centre	<ul style="list-style-type: none"> → EV Support Development → Public Transport → Renewable Energy Development → Tourism Node and Information Centre Upgrading → Industrial Corridor Support → Logistics Interventions
----------------	-----------------------------	---

Table 15: Key Development Zones and Corridors: Rural Spatial Action Area

Structuring Element	Towns Affected	Interventions
Corridors		
N14	Kuruman	<ul style="list-style-type: none"> → EV Charging Station Development → Northern Cape Development Corridor Development → Railway Upgrading/Development
R31	Kuruman	<ul style="list-style-type: none"> → Tourism Route Development → Proposed Regional Trade Route Development → Route Upgrading and Maintenance
Zones		
Asbestos No-go Zone	Northern part of the PSAA	<ul style="list-style-type: none"> → Define and restrict land use in no-go areas. → Establish buffer zones around no-go areas. → Provide public health information on asbestos risks. → Prohibit sensitive uses like residential, educational, and recreational activities in no-go areas. → Protect areas with high environmental value → Develop and include detailed plans for the rehabilitation of contaminated sites.
		→





Regional Spatial Action Areas

Rural Spatial Action Area (RSAA)





2.5.7 VAALHARTS SPATIAL ACTION AREA (VHSAA)

2.5.7.1 SIGNIFICANCE TO THE PROVINCIAL SPATIAL COMPOSITE

The Vaalharts Spatial Action Area (VHSAA) encompasses the Phokwane and Magareng Local Municipalities in their entirety, along with portions of Sol Plaatjie and Dikgatlong Local Municipalities. As the smallest Spatial Action Area (SPA) in the province, the VHSAA is situated in the northeastern region. Predominantly agricultural, the area is characterized by protected agricultural land, particularly in the western sections which fall within the Vaal-Orange Agricultural Zone. Additionally, the mining industry significantly influences the VHSAA, especially in Magareng and Dikgatlong.

Kimberley, the provincial capital, stands as the economic hub of the Northern Cape and is notable for its diverse economic activities. The VHSAA is the most diversified of the Spatial Action Areas, hosting a variety of industries including agriculture, mining, and value-adding services. Its strategic location makes it highly accessible, with key links to the rest of South Africa via major routes such as the N8, N12, and N18.

Key priorities for the VHSAA's development include addressing energy challenges, protecting agricultural land, and supporting agro-processing. The region seeks to advance mineral beneficiation, implement a robust Industrial Policy Action Plan, stimulate private sector investment, unlock SMME potential, and conserve essential natural resources like the Vaal River. Notable projects include the PSHDA township developments and various renewable energy initiatives.

Strategic opportunities within VHSAA encompass:

- **Adventure Tourism:** Development along the Vaal River (Adventure Hubs)
- **Renewable Energy:** Local energy policy changes and strategic development interventions.

- **Mining Development:** Legal and structured development of formal and informal mining sectors while also supporting the development of mining tourism in historic mining towns.
- **Infrastructure:** Enhancements in transport, roads and rail.
- **Training and Finance:** Internal and external training initiatives and exploration of new income sources.
- **Environment:** The VHSAA has various natural environments of ecological importance such as the Vaal River and conservation areas. These natural areas are crucial for biodiversity conservation and offer significant tourism potential.
- **Agrihub:** The Agrihub in Warrenton and supporting FPSU's in surrounding towns provide the opportunity for agro-processing development and the strengthening of the agriculture industry in the region.
- **Regional Trade Route Development:** The development of a regional trade route between Kuruman and Kimberley along the R31 may unlock potential regional trade between the settlements and encourage trade further north towards Zimbabwe.
- **Heritage Tourism:** The various heritage sites within Kimberley and Barkley West provide an opportunity for targeted tourism focussing on the unique heritage of these areas.
- **Investment Opportunities:** Vaalharts Irrigation Scheme upgrading, Knowledge-Economy, Integrated Housing Developments, Agro-processing.

The region's main focus is the agriculture and agro-processing sector as can be seen through the presence of various FPSU projects and the protected agricultural land. Mining is another important sector which should also be supported but not at the expense of agricultural activities and environmental conservation.

2.5.7.2 KEY SPATIAL STRUCTURING ELEMENTS FOR THE VAALHARTS SPATIAL ACTION AREA

Table 16: Key Development Nodes - Vaalharts Spatial Action Area

Settlement	Role	Interventions
National Urban Nodes		





Settlement	Role	Interventions
KIMBERLEY	Various larger and specialist Services are acquired in Kimberley.	<ul style="list-style-type: none">➔ Renewable Energy Developments➔ Logistics Interventions➔ Airport Upgrading➔ Heritage Tourism Development➔ Knowledge and Innovation Development➔ Industrial Development (value-adding industries)➔ Government and Social Services Development
Small Service Towns		
Warrenton	Small Service Node & Agricultural Node	<ul style="list-style-type: none">➔ Agriculture Value Adding and Processing➔ Logistics Support➔ Basic services infrastructure optimisation➔ Agripark Development
Hartswater		<ul style="list-style-type: none">➔ Basic services infrastructure optimisation➔ Agriculture Value Adding and Processing – FPSU Development
Small towns		
Barkley West	Small Service Node & Agricultural Node	<ul style="list-style-type: none">➔ Basic services infrastructure optimisation➔ Heritage Tourism Development➔ Agriculture Value Adding and Processing
Jan Kempdorp		<ul style="list-style-type: none">➔ Basic services infrastructure optimisation➔ Agriculture Value Adding and Processing – FPSU Development
Windsorton	Small Service Node	<ul style="list-style-type: none">➔ Basic services infrastructure optimisation➔ Agriculture Value Adding and Processing – FPSU Development➔ Mining Development

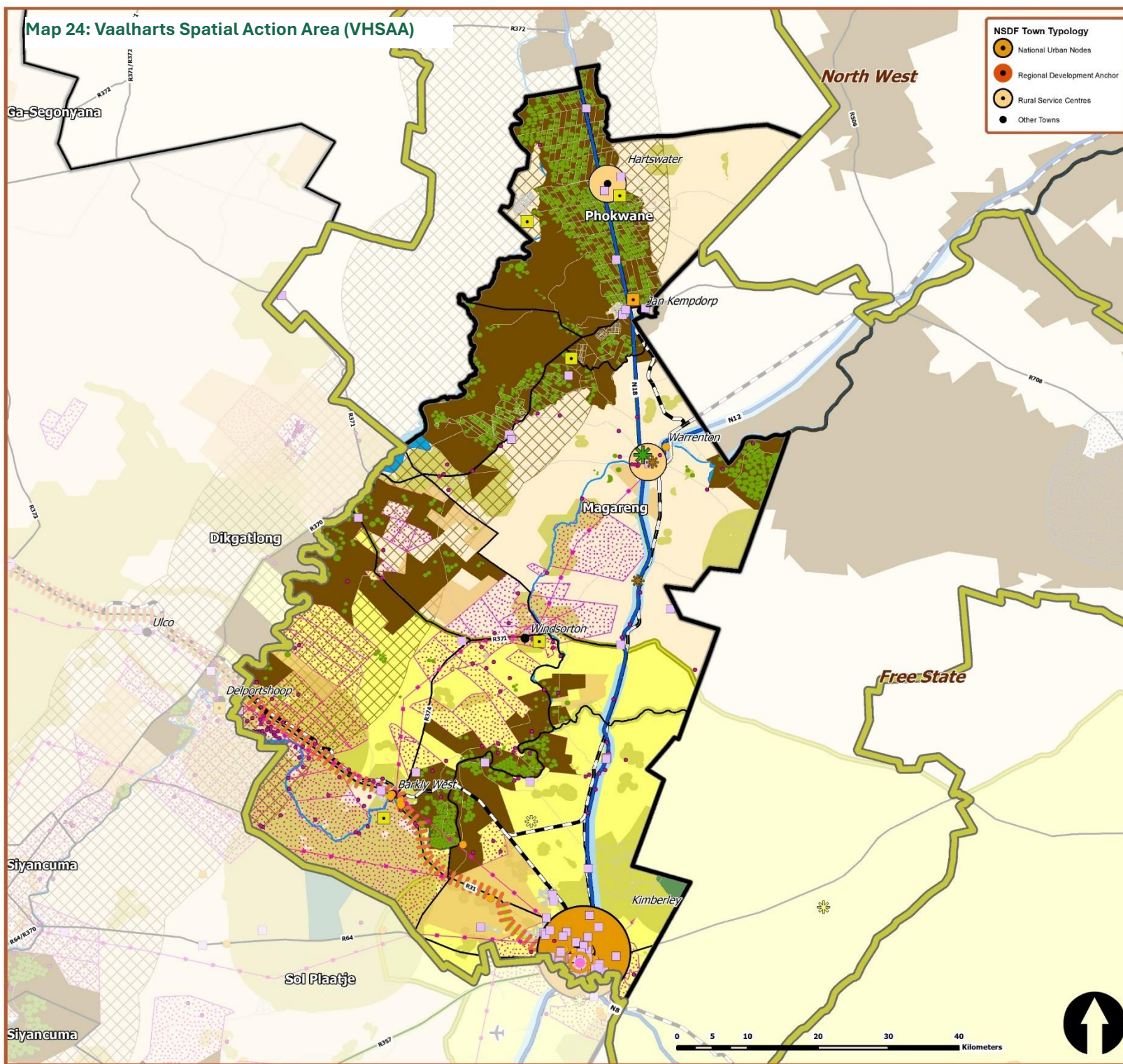
Table 17: Key Development Zones and Corridors - Vaalharts Spatial Action Area

Structuring Element	Towns Affected	Interventions
---------------------	----------------	---------------

Corridors		
N18/N12	KIMBERLEY Hartswater Jan Kempdorp Warrenton	<ul style="list-style-type: none"> → EV Charging Station Development → Regional Trade Route Development → Mixed-Use Development Zones
R31	KIMBERLEY Barkley West	<ul style="list-style-type: none"> → Proposed Regional Trade Route Development → Route Upgrading and Maintenance – Kuruman/ Kathu link



Map 24: Vaalharts Spatial Action Area (VHSAA)



Regional Spatial Action Areas Vaalharts Spatial Action Area (VHSAA)



Source: SANBI, NSDF, DALRRD, DESTEA, DEA, DFFE, DWS





3 CONCLUSION

In conclusion, the Northern Cape Spatial Proposal provides a comprehensive and strategic framework for regional development, integrating economic, social, and environmental objectives. This proposal recognizes the unique challenges and opportunities within the region, aiming to balance growth with sustainability and resilience. By leveraging the identified drivers—Thriving Economic Engines, Transforming Spaces & Livelihoods, Conservation of Resource Production Areas, and Effective Spatial Governance—the framework addresses the multifaceted needs of the Northern Cape's diverse communities.

The spatial structuring elements, including corridors, nodes, and zones, ensure that development is strategic and adaptable to changing circumstances and localized needs. Linkages and Integration emphasize the importance of connectivity within the region and with external markets, fostering economic integration and access to opportunities. Clustering Analysis provides a nuanced understanding of development hotspots and areas requiring more attention, facilitating targeted interventions. Planning Adaptation ensures that strategies remain relevant and effective, accommodating shifts in demographic, economic, and environmental conditions.

By focusing on the specific needs of each Spatial Action Area, the proposal ensures that interventions are tailored and impactful. The Coastal Spatial Action Area (CSAA) prioritizes sustainable coastal development, enhancing marine ecosystems, and boosting tourism and maritime industries. The Douglas to Kakamas Spatial Action Area (DKSAA) focuses on maximizing agricultural potential, improving water management, and linking rural communities to broader markets. The Gamagara Spatial Action Area (GSAA) aims to enhance the mining sector's contributions while mitigating environmental impacts and fostering community development. The Kalahari Spatial Action Area (KHSAA) addresses the unique arid environment, promoting renewable energy projects and community

resilience. The Karoo Spatial Action Area (DSAA) emphasizes sustainable land use, biodiversity protection, and economic diversification through agri-tourism and arid innovation. The Rural Spatial Action Area (RSAA) focuses on improving rural infrastructure, services, and economic opportunities, ensuring balanced regional development. The Vaalharts Spatial Action Area (VHSAA) stands out for its diversified economy, emphasizing agriculture, agro-processing, mining, and renewable energy, while protecting natural resources and enhancing infrastructure.

Ultimately, the Northern Cape Spatial Proposal aims to create a sustainable, prosperous, and resilient Northern Cape. By integrating economic growth with social well-being and environmental stewardship, the proposal envisions a future where the Northern Cape can thrive while preserving its unique natural and cultural heritage. The strategic focus on spatial structuring elements and specific action areas ensures that development is inclusive and forward-thinking, paving the way for a robust and vibrant regional economy.





REFERENCES

- 2024 State of the Province Addresses: Northern Cape (29 February 2024). (2022, February 24). Retrieved from Parliamentary Monitoring Group: <https://www.gov.za/news/speeches/premier-zamani-saul-northern-cape-state-province-address-2024-29-feb-2024>
- CoGTA. (2016). Integrated Urban Development Framework. Pretoria: Department of Cooperative Governance and Traditional Affairs.
- CSIR. (2018). South African Functional Town Typology 2018. Tshwane: Council for Scientific and Industrial Research. Retrieved from <http://stepsatest.csir.co.za/>
- CSIR. (2023, January). Social just and rational social services provision for South African settlements. Retrieved from The stepSA website: http://stepsatest.csir.co.za/service_wheel_typology.html
- DALRRD. (2022). National Spatial Development Framework. Pretoria: Department of Agriculture, Land Reform and Rural Development.
- DALRRD. (2022). Karoo Regional Spatial Development Framework (Karoo RSDF).
- DCoG. (2021). Small Town Regeneration Strategy and Implementation Plan, 2021. Pretoria: Department of Cooperative Governance.
- DEA, & SANBI. (2016). Strategic Framework and Overarching Implementation Plan for Ecosystem-Based Adaptation (EbA) in South Africa: 2016 – 2021. Pretoria: Department of Environmental Affairs.
- Department of Agriculture Land Reform and Rural Development. (2022). Agriculture and Agro-processing Master Plan "Social Compact". Department of Agriculture Land Reform and Rural Development. Department of Agriculture Land Reform and Rural Development.
- DoT. (2017). National Transport Master Plan 2050 (NATMAP 2050). Pretoria: National Department of Transport.
- DPW&I. (2022). National Infrastructure Plan 2050. Pretoria: Department of Public Works and Infrastructure.
- Eastern Cape Provincial Government. (2020). Eastern Cape Provincial Spatial Development Framework. EC COGTA.
- Free State Provincial Government. (2024). Draft Free State Provincial Spatial Development Framework. OTP.
- Frances Baard District Municipality. (2023). Frances Baard District Spatial Development Framework (SDF).
- National Planning Commission. (2012). National Development Plan 2030. Our Future - Make it work. Pretoria: National Planning Commission.
- John Taolo Gaetsewe District Municipality. (2023). John Taolo Gaetsewe District Spatial Development Framework (SDF).
- Namakwa District Municipality. (2023). Namakwa District Spatial Development Framework (SDF).
- North West. (2017). North West Provincial Spatial Development Framework. OTP.
- Northern Cape. (2019). Northern Cape Provincial Spatial Development Framework. OTP.
- Northern Cape. (2018). Northern Cape Provincial Growth and Development Plan. OTP.
- Northern Cape. (2024). Northern Cape Treasury: Provincial Infrastructure Projects 2023-2024.
- Pixley Ka Seme District Municipality. (2022). Pixley ka Seme District Spatial Development Framework (SDF).
- PICC. (2012). A Summary of the South African National Infrastructure Plan. Pretoria: Presidential Infrastructure Coordinating Commission.
- RSA. (2011). National Climate Change Response White Paper. Pretoria: Republic of South Africa.
- RSA. (2013). Spatial Planning and Land Use Management Act, 16 of 2013. Pretoria: Department of Land Reform and Rural Development.
- RSA. (2020). The South African Economic Reconstruction and Recovery Plan. Pretoria: Republic of South Africa.





- *RSA. (2022). Climate Change Bill, 9 of 2022. Pretoria: Government Printers.*
- *SADC (5). (2018). Transfrontier Conservation Areas. Southern African Development Community. Gabarone: SADC secretariat.*
- *SANBI. (2019). National Biodiversity Assessment 2018: The status of South Africa's ecosystems and biodiversity. Synthesis Report. Pretoria: South African National Biodiversity Institute, an entity of the Department of Environment, Forestry and Fisheries.*
- *TheDti. (2018). Industrial Policy Action Plan: 2018-19 - 2020-21. Pretoria: Department of Trade and Industry.*
- *Western Cape Provincial Government. (2020). Provincial Spatial Development Framework (PSDF).*
- *United Nations. (n.d.). Sustainable Development Goals. Retrieved August 18, 2022, from <https://sdgs.un.org/goals#goals>*
- *ZF Mgcawu District Municipality. (2023). ZF Mgcawu District Spatial Development Framework (SDF).*

