



Social Impact Assessment Report for the Proposed Prospecting Right Application in Isihlengeni, near Vryheid, KwaZulu-Natal

Prepared for

Niara Minerals (Pty) Ltd



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Client Name:	Niara Minerals (Pty) Ltd		
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Declaration by the Specialist

I Nolwazi Dlamini, as duly authorised representative of Temvelo Consultants (Pty) Ltd, hereby confirm my independence and declare that I:


- I act as the independent specialist in this application;
- I am aware of the procedures and requirements for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (NEMA), 1998, as amended, when applying for environmental authorisation which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. “the Protocols”) and in Government Notice No. 1150 of 30 October 2020.
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

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- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
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- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the NEMA Act.

Signature of the Specialist:	
Name of Specialist	Nolwazi Dlamini
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Date:	30 July 2025

Undertaking under Oath/Affirmation

I Nolwazi Dlamini, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

Signature of the Specialist:	
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Name of Company:	Temvelo Consultants (Pty) Ltd
Date:	30 July 2025

Specialist Checklist

EIA REGULATIONS 2017 GNR 327, 325 and 324 Appendix 6	In accordance with the EIA Regulations	Cross reference in this Report
CONTENT OF THE SPECIALIST REPORTS		
(a) details of— the specialist who prepared the report; and the expertise of that specialist to compile a specialist report including a curriculum vitae;	✓	Section 4.6
(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	✓	Page 3
(c) an indication of the scope of, and the purpose for which, the report was prepared	✓	Section 3
(cA) an indication of the quality and age of Base Data used for the specialist report	✓	Section 7.4
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and the levels of acceptable change	✓	Section 15
(d) the date and season of the site investigation and the relevance of the season to the outcome of the assessment;	✓	Section 7.4.2
(e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	✓	Section 7
(f) Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives.	✓	Section 9
(g) an identification of any areas to be avoided, including buffers;	✓	N/A
(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers	✓	N/A
(i) a description of any assumptions made and any uncertainties or gaps in knowledge;	✓	Section 8.3
(j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities	✓	Section 12
(k) any mitigation measures for inclusion in the EMPr	✓	Section 15
(l) any conditions for inclusion in the environmental authorisation;	✓	Section 15
(m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	✓	Section 15
(n) a reasoned opinion— i. whether the proposed activity, activities or portions thereof should be authorised; and (iA) regarding the acceptability of the proposed activity or activities; and	✓	Section 16



EIA REGULATIONS 2017 GNR 327, 325 and 324 Appendix 6 CONTENT OF THE SPECIALIST REPORTS	In accordance with the EIA Regulations	Cross reference in this Report
ii. if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMP, and where applicable, the closure plan;		
(o) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	✓	N/A
(p) any other information requested by the competent authority	✓	N/A

Executive Summary

Introduction

Niara Minerals (Pty) Ltd has applied for a Prospecting Right in accordance with Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), to explore coal, pseudo-coal, and torbanite/oil shale within a 9-hectare area in the Abaqulusi Local Municipality, under the Zululand District Municipality, KwaZulu-Natal Province. The application also triggers the requirements of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and its associated EIA Regulations. Temvelo Consultants (Pty) Ltd has been appointed as the independent Environmental Assessment Practitioner (EAP) responsible for the environmental authorisation process.

The proposed prospecting area spans various portions of farms including Isihlengeni, Demoina, Weltevrede, Misty Valley, Toovernaars Rust. The area lies approximately 3 km south of Ngenetsheni and 23 km south of Louwsburg.

Methodology

This Social Impact Assessment (SIA) was undertaken in alignment with the definition established by Vanclay (2002), which frames a SIA as the systematic process of analysing, predicting, evaluating, and managing both intended and unintended social consequences of proposed interventions. These may include policies, programmes, projects, or plans, with the overarching goal of fostering a more sustainable and equitable biophysical and human environment.

The approach adopted for this study was both participatory and interdisciplinary, grounded in South Africa's legislative framework, particularly the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), and informed by international best-practice standards such as the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability.

The methodology entailed the delineation of three levels of spatial analysis: the primary study area (properties within the prospecting right boundary), the secondary study area (communities and wards adjacent to the application area), and the regional context (the broader Abaqulusi Local Municipality and Zululand District Municipality). This tiered approach allowed for the identification and contextualisation of socio-economic trends and potential impacts across multiple geographic scales.

Both primary and secondary data sources were used to inform the assessment. Secondary data included census statistics, Integrated Development Plans (IDPs), municipal records, and existing literature relevant to the study

area. Primary data collection involved limited, informal interviews with selected community members and leaders. While a full household survey was not conducted, direct engagement was prioritised with key informants, traditional authorities, and municipal representatives to capture context-specific social dynamics, concerns, and aspirations.

The impact assessment component of the study applied a structured, semi-quantitative impact rating methodology. This framework evaluates impacts based on a function of consequence and probability, incorporating dimensions such as magnitude, duration, extent, reversibility, and the degree to which impacts can be mitigated. Impacts were classified according to each project phase, site establishment, prospecting operations, and closure, and measured against the social baseline to determine their relative significance.

Wherever risks or challenges were identified, practical mitigation and enhancement measures were proposed to reduce adverse effects and promote equitable benefits. Emphasis was placed on issues of land use, local economic inclusion, expectations management, and community engagement. Due to the limited scope of primary data and the sensitivity of local dynamics, caution was exercised in generalising community responses, and all data were treated confidentially and ethically in accordance with social research protocols.

Overall, the methodology aimed to ensure a balanced, transparent, and context-sensitive understanding of how the proposed prospecting right may affect the social fabric of the receiving environment, while providing the proponent and regulatory authorities with actionable recommendations for managing social performance responsibly throughout the project lifecycle.

Activities

The project involves non-invasive and invasive prospecting activities aimed at determining the viability of extracting coal and related resources. Activities may include desktop studies, site clearance, drilling (core and/or reverse circulation), sampling, and establishment of temporary infrastructure such as mobile ablution facilities and drilling platforms.

All prospecting operations are expected to be temporary in nature and will comply with relevant environmental, health, and safety regulations. Rehabilitation of disturbed areas will be conducted progressively.

The proposed prospecting right application is for the exploration of coal, pseudo-coal, and torbanite/oil shale. The application area spans various farm portions, namely the Remaining Extent of Isihlengeni No. 689; the Remaining Extent of Demoina; Portion 1 of Weltevrede No. 540; Portion 1 of Misty Valley No. 831; Portions 0, 3, 4, and 6 of Toovernaars Rust No. 518. The proposed prospecting area is located within the Abaqulusi Local Municipality, under the Zululand District Municipality in the KwaZulu-Natal Province, covering a total area of approximately ~15 hectares.

The proposed activities on site are as follows:

- Site Establishment
- The applicant intends to utilize a bulldozer to clear vegetation for site establishment and the construction of the access roads.
- Access Roads
- Existing roads will be utilized as far as possible, and areas of the least sensitivity will be chosen for access roads to the trenching sites.
- Trenching
- The excavation will involve the trenching of five trenches, each with dimensions of 50 meters by 20 meters by 4 meters. Trenching locations cannot be considered at this stage because prospecting trenches can only be sited after desktop assessment, field mapping, and geophysical survey have been completed. The principle of sampling is to determine the quality and grade of the diamonds as well as the depth and extent at which the gravel is found. Gravel Thickness is expected to be 4m (i.e 5 000m³). Bulk sampling will be done by using machinery as well as labour. Excavators and rigid haul trucks will be used to remove the topsoil as well as possible diamondiferous gravel deposit where it then goes through a scrubber and is stockpiled.

Key Findings and Recommendations

Key Findings

- The proposed prospecting project is located within a region characterized by agricultural land use, natural woodlands, reservoirs, and wind pumps, all contributing to local livelihoods and resource management strategies.
- The project area is predominantly situated within the Grassland Savanna Biome, with the Savanna Biome representing the second largest portion of the landscape. Scattered patches of Azonal vegetation and forest areas are also present, reflecting the ecological diversity of the region
- The predominant land use within the project boundary consists of commercial plantations, which form extensive, managed forestry areas. These are interspersed with scattered woodlands, adding to the area's ecological diversity and contributing to natural habitat connectivity.
- The project area falls within Critical Biodiversity Area (CBA) 2 – Optimal, and is surrounded by areas classified as CBA Irreplaceable, according to the KwaZulu-Natal Biodiversity Sector Plan (2020) .

- No existing infrastructure is currently present on-site. However, temporary infrastructure such as access roads, trenches, site offices, ablution facilities, and a waste management area will be established during the prospecting phase, with minimal disturbance anticipated.
- This draft BAR is based on desktop assessments and GIS mapping; site-specific specialist studies are yet to be conducted and will form part of the EIA Phase.
- Initial identification of potential environmental impacts includes vegetation disturbance, habitat fragmentation, dust generation, and potential water use concerns, which will be assessed in more detail during the EIA Phase.

The project footprint is relatively small (~15 ha), temporary in duration, and does not require permanent infrastructure or physical displacement. However, it intersects with communal and customary land, raising valid concerns from local communities around land access, livelihood disruption, and long-term intentions of the project.

Key findings indicate that, while negative impacts such as dust, noise, access restrictions, and heightened expectations may arise during construction and operational phases, they are manageable and of low to medium significance if robust mitigation measures are implemented. Positive impacts, though limited, include short-term employment, skills development, and local procurement opportunities.

Stakeholder consultations highlighted a trust deficit stemming from historical experiences with mining in the region. Communities expressed a strong demand for transparent communication, equitable benefit-sharing, and respect for traditional leadership and customary land protocols.

The assessment concludes that the project is socially feasible, subject to:

- Ongoing, inclusive engagement;
- Respectful land access negotiations;
- Transparent management of expectations;
- Active monitoring and grievance mechanisms;
- Implementation of the proposed social mitigation measures.

If these conditions are met, the prospecting project presents a low-risk opportunity to assess potential mineral resources while minimising harm and laying the groundwork for socially responsible development.

Recommendations

- Proceed to will include detailed, field-based specialist studies to verify baseline conditions and assess potential impacts.
- Prioritize avoidance of sensitive ecological areas, especially those within the Critical Biodiversity Area and vulnerable vegetation types, through site layout planning and minimization of footprint.
- Develop a robust Environmental Management Programme (EMPr) outlining specific mitigation, monitoring, and rehabilitation measures aligned with best practice and regulatory requirements.
- Engage stakeholders continuously through a transparent Public Participation Process, ensuring that community concerns and inputs are integrated into project planning and decision-making.
- Ensure that prospecting activities comply with all applicable environmental legislation, including the National Environmental Management Act (NEMA) and associated EIA Regulations.
- Implement adaptive management strategies based on ongoing environmental monitoring and stakeholder feedback throughout the project lifecycle.

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Appendix A: Specialist CV

List of Abbreviations and Acronyms

AIPs	Alien Invasive Plants
BID	Background Information Document
CMA	Catchment Management Area
CRR	Comments and Response Report
DEA	Department of Environmental Affairs
DFFE	Department: Forestry, Fisheries and the Environment
DMRE	Department of Mineral Resources and Energy
DWA	Department of Water Affairs
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GDP	Gross Domestic Product
GIS	Geographic Information Systems
GNR	Government Notice Regulation
GPS	Global Positioning System
Ha	Hectares
HIA	Heritage Impact Assessment
I&APs	Interested and Affected Parties
IBAs	Important Bird Areas
IHI	Index for Habitat integrity
WULA	Water Use Licence Application
Km	kilometers
M	meters
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
MR	Mining Right
NAAQS	National Ambient Air Quality Standards
NBA	National Biodiversity Assessment
NCR	Noise Control Regulations Act, 1989 (Act 73 of 1989)
NEM: AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM: WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)

NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PR	Prospecting Right
PHRA-G	Provincial Heritage Resources Authority of Gauteng
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAIAB	South African Institute of Aquatic Biodiversity
SANBI	South African National Biodiversity Index
SANS	South African National Standards
SAWS	South African Weather Service
SCC	Species of Conservation Concern
SIA	Social Impact Assessment
SMME	Small Medium Enterprises
SPLM	Sol Platjie Local Municipality
SWMP	Stormwater Management Plan
TDS	Total Dissolved Solids
WMA	Water Management Area
WML	Waste Management Licence

Glossary of Terms

- **Affected Communities**
Groups of people living within or adjacent to the project's Zone of Influence (ZoI) who are likely to experience direct or indirect impacts from the prospecting activities.
- **Baseline Conditions**
The existing social, economic, environmental, and institutional context of a project area before the implementation of the proposed activities. Baseline data are used to assess changes caused by a project.
- **Benefit Sharing**
The equitable distribution of economic, social, or infrastructural benefits derived from a project to affected individuals and communities, particularly those who bear its risks and impacts.
- **Borehole Drilling**
The process of penetrating the earth's surface using a rotary or percussion drill rig to obtain core samples or geotechnical information as part of exploration or prospecting activities.
- **Cultural Heritage**
Tangible and intangible assets of importance to communities, including sacred sites, rituals, languages, and historical landscapes that may be impacted by project activities.
- **Cumulative Impacts**
The combined effects of a proposed activity and other past, present, or reasonably foreseeable future actions within a defined area, which may result in amplified social or environmental pressures.
- **Decommissioning Phase**
The project stage in which all prospecting activities have ceased, and the site is rehabilitated. This includes the removal of infrastructure, closure of boreholes, and restoration of land.
- **Demographic Profile**
A statistical representation of the population characteristics in a defined area, including age, gender, ethnicity, household size, education level, employment, and income.
- **Environmental Authorisation (EA)**
A formal approval granted by the competent authority under the NEMA, permitting a listed activity (such as prospecting) to proceed under specific conditions.
- **Environmental Impact Assessment (EIA)**
A systematic process to identify, assess, and mitigate the potential environmental and socio-economic

impacts of a proposed activity. Governed in South Africa by the NEMA and EIA Regulations (GNR 982 of 2014, as amended).

- **Environmental Management Programme (EMPr)**

A legally binding document outlining mitigation and monitoring measures to manage environmental and social impacts during all phases of a project.

- **Grievance Mechanism**

A formal, transparent process through which affected individuals or groups can raise concerns about project activities and seek resolution or redress.

- **IFC Performance Standards**

A set of global benchmarks issued by the International Finance Corporation for managing environmental and social risks in development projects, especially in emerging markets. PS1 and PS5 are particularly relevant to this project.

- **Interested and Affected Parties (I&APs)**

Individuals, organisations, or groups that may be directly or indirectly affected by a project or have an interest in its outcomes. Includes local residents, landowners, NGOs, and authorities.

- **Land Use**

The manner in which land is currently used, including for residential, agricultural, cultural, grazing, or ecological purposes. Changes to land use can impact livelihoods and social structures.

- **Livelihoods**

The means through which individuals and households secure food, income, shelter, and other necessities. Common rural livelihoods in Abaqulusi include subsistence farming, livestock rearing, and informal trade.

- **Magnitude of Impact**

A measure of how significantly a project activity affects biophysical or social processes. Often assessed in conjunction with extent, duration, and probability.

- **Mitigation Measures**

Actions designed to avoid, reduce, offset, or manage adverse project impacts on the social or biophysical environment.

- **National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998)**

The overarching environmental legislation in South Africa that governs environmental planning, management, and protection, including EIA requirements.

- **National Water Act (NWA), 1998 (Act No. 36 of 1998)**

The legislative framework governing water resources in South Africa, including licensing requirements to use water or discharge effluent.
- **No-Go Alternative**

A scenario considered during the EIA process in which the proposed project is not implemented. This serves as a baseline for comparison against other development options.
- **Probability of Occurrence**

The likelihood that a specific impact will occur. Combined with magnitude, extent, and duration to determine significance.
- **Project Lifecycle**

The various phases of a project, from planning and construction through to operation, decommissioning, and closure. Each phase may present different social and environmental impacts.
- **Prospecting Right**

A legal right granted under Section 16 of the Mineral and Petroleum Resources Development Act (MPRDA) to conduct limited mineral exploration activities on a defined area of land.
- **Public Participation Process (PPP)**

A legislated process to ensure that stakeholders and the public are informed about and consulted on proposed developments that may affect them. A core component of EIA and SIA processes.
- **Rehabilitation**

The process of restoring disturbed land to its original or agreed-upon state after project activities have ceased. Involves recontouring, reseeding, and stabilising land to prevent erosion or degradation.
- **Scoping Phase**

The initial phase of an Environmental Impact Assessment that determines the nature and extent of issues to be assessed and defines the Terms of Reference for subsequent studies.
- **Sensitivity (Social)**

The degree to which a social receptor (e.g. a community, vulnerable group, or cultural site) is likely to be affected by a proposed project.
- **Significance Rating**

A numerical or descriptive ranking of the importance of an impact, based on a combination of magnitude, duration, extent, and probability. Used to guide decision-making and prioritise mitigation.

- **Site Establishment**

The preparatory phase of a project where access routes are created, temporary facilities are erected, and necessary infrastructure is installed for operations to begin.

- **Social Impact**

Any change (positive or negative) in the living conditions, well-being, livelihood security, or social cohesion of individuals or communities resulting from a project.

- **Social Impact Assessment (SIA)**

A component of the EIA process that analyses, predicts, and manages social consequences of development. Includes community engagement, baseline profiling, and risk mitigation.

- **Social Licence to Operate**

The ongoing acceptance or approval of a project by local communities and stakeholders, usually earned through transparency, trust-building, and mutual benefit.

- **Stakeholder Engagement**

The process of involving individuals, groups, or organisations in the planning and decision-making processes of a project, particularly those who may be affected.

- **Traditional Leadership**

Customary authorities who govern land and social structures within rural communities. Recognised under South African law and play a key role in land access and community consultation.

- **Vulnerable Groups**

Populations that may experience disproportionate or heightened impacts from a project due to socio-economic status, gender, age, disability, or other factors (e.g. the elderly, women-headed households, children, and people with disabilities).

- **Zone of Influence (Zoi)**

The spatial area within which communities and environmental receptors may be directly or indirectly affected by the proposed prospecting activities. Determined based on proximity, land use, and socio-economic characteristics.

1 Introduction

Niara Minerals (Pty) Ltd is undertaking a prospecting initiative for coal, pseudo-coal, and torbanite/oil shale under a Prospecting Right application submitted in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA). The proposed prospecting area spans approximately 15 hectares across multiple farm portions—namely the Remaining Extent of Isihlengeni No. 689, Remaining Extent of Demoina, Portion 1 of Weltevrede No. 540, Portion 1 of Misty Valley No. 831, and Portions 0, 3, 4, and 6 of Toovernaars Rust No. 518. The project is located within the jurisdiction of the Abaqulusi Local Municipality, Amajuba District Municipality in KwaZulu-Natal Province, roughly 3 km south of Ngenetseni and 23 km south of Louwsburg.

Temvelo Consultants (Pty) Ltd has been appointed as the independent Environmental Assessment Practitioner (EAP) to guide the environmental authorisation process in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The proposed prospecting activities trigger activities listed in Listing Notice 1 of the Environmental Impact Assessment Regulations, as amended (GNR 982), thereby necessitating a Basic Assessment process inclusive of specialist studies—among them, a Social Impact Assessment (SIA).

The scope of prospecting involves both non-invasive methods and limited invasive exploration through the drilling of approximately 10–15 boreholes. These will be strategically sited to balance data representativity with minimal surface disturbance. Drilling activities will follow applicable health, safety, and environmental protocols, and are expected to unfold over four phases across a 60-month period, with provision for renewal.

This SIA has been commissioned as an integral component of the environmental authorisation process, aligning with Section 24 of NEMA and the principles of sustainable development and environmental justice articulated in Section 2 of the Act. The purpose of this SIA is to systematically identify, predict, and assess the potential social and socio-economic impacts—both positive and negative—that may result from the proposed prospecting operations. The study integrates both qualitative and quantitative methods, employing fieldwork, stakeholder engagement, spatial data analysis, and review of secondary sources to establish a robust socio-economic baseline.

The report provides a detailed account of the existing demographic, economic, cultural, and institutional context of the receiving environment and identifies social receptors most likely to be affected by the proposed activities. Key focus areas include land use and tenure, access to services and infrastructure, livelihoods, employment, safety and security, perceptions of risk, and the community's historical experience with extractive industries. Special attention is given to the unique characteristics and vulnerabilities of the host communities and to the intersecting dynamics of rurality, marginalisation, and ecological sensitivity in the area.

Furthermore, this SIA adheres to international best practice guidelines as set out by the International Association for Impact Assessment (IAIA), while also being grounded in local policy and planning frameworks, including the KwaZulu-Natal Biodiversity Spatial Planning Framework, the Amajuba District Integrated Development Plan (IDP), and the National Development Plan 2030. The report includes impact ratings, proposed mitigation strategies, and monitoring measures aimed at enhancing project benefits while proactively managing potential risks and harms.

Through this assessment, Niara Minerals and its consultants aim to support informed decision-making, foster constructive engagement with stakeholders, and promote socially responsible resource development that is sensitive to the rights, needs, and aspirations of local communities.

2 Project Locality

2.1 Regional Context

The proposed prospecting activities by Niara Minerals (Pty) Ltd are situated within the jurisdiction of the Abaqulusi Local Municipality, which falls under the Zululand District Municipality in the KwaZulu-Natal Province of South Africa. This region forms part of the northern inland area of the province, characterised by a mix of rural villages, extensive forestry operations, communal grazing areas, and patches of natural grasslands and wetlands. The prospecting area lies approximately 3 km south of the settlement of Ngenetsheni and around 23 km south of the town of Louwsburg, placing it within a predominantly rural socio-economic and ecological setting.

2.2 Site Boundaries and Land Parcels

The application area comprises multiple portions of farmland with a cumulative extent of approximately 15 hectares, dispersed across four primary farm entities and one subdivided property. These parcels are located within wards 2, 3, and 4 of the Abaqulusi Local Municipality, as illustrated in *Figure 2.1: Local Setting Map*. The project footprint is bounded by a mosaic of land uses, including communal agricultural lands, scattered rural homesteads, portions of the Ngome Forest, and other environmentally sensitive areas such as FEPA rivers and Critical Biodiversity Areas (CBAs).

The specific properties and their associated 21-digit Surveyor General codes are listed in the table below.

Table 2-1: Project Site Land Parcel Information

SG Code	Farm Parcel Key	Farm No	Farm Name	Farm Portion(s)
N0HU00000000051800000	K263N0HU00000000051800000	518	TOOVERNAARS RUST 518 HU	0,1,2, 3, 4, 5 & 6
N0HU00000000068900000	K263N0HU00000000068900000	689	ISIHLENGENI 689 HU	0
N0HU00000000054000000	K263N0HU00000000054000000	540	WELTEVREDE 540 HU	1
N0HU00000000083100000	K263N0HU00000000083100000	831	MISTY VALLEY 831 HU	1
N0HU00000000083000000	K263N0HU00000000083000000	830	DEMOINA 830 HU	0

2.3 Accessibility and Infrastructure

The project area is accessible via secondary gravel roads branching from the R69 provincial route, which connects the regional centres of Vryheid and Nongoma. Several homesteads and villages are located in proximity to the identified prospecting blocks, with Roma, Boshhoek, and Ngenetsheni being the nearest settlements. Limited formal infrastructure exists in the immediate project footprint, reflecting the rural and partially underdeveloped nature of the area.

2.4 Environmental and Social Sensitivities

The location intersects with ecologically significant landscapes, including Ngome Forest, mapped Key Biodiversity Areas (KBAs), and National Protected Area Expansion Strategy (NPAES) focus areas. Additionally, parts of the area fall within traditional authority land and communal tenure systems, which require culturally and socially responsive engagement and land access protocols.

Proximity to ward boundaries and traditional authority governance structures necessitates early and ongoing engagement with relevant community forums, tribal councils, and municipal representatives to ensure procedural integrity and social license to operate.

2.5 Strategic Importance

Positioned within a mineral-rich corridor, the identified parcels offer potential for coal, pseudo-coal, and torbanite/oil shale exploration. However, this opportunity must be weighed against the area's ecological, heritage, and social sensitivities, particularly given the high rural dependency on natural resources and communal land access.

As such, the project location is not only a geographic reference but also a determinant of the project's social feasibility and environmental sustainability. This SIA report aims to ensure that location-specific risks and opportunities are comprehensively considered in the project planning and implementation phases.

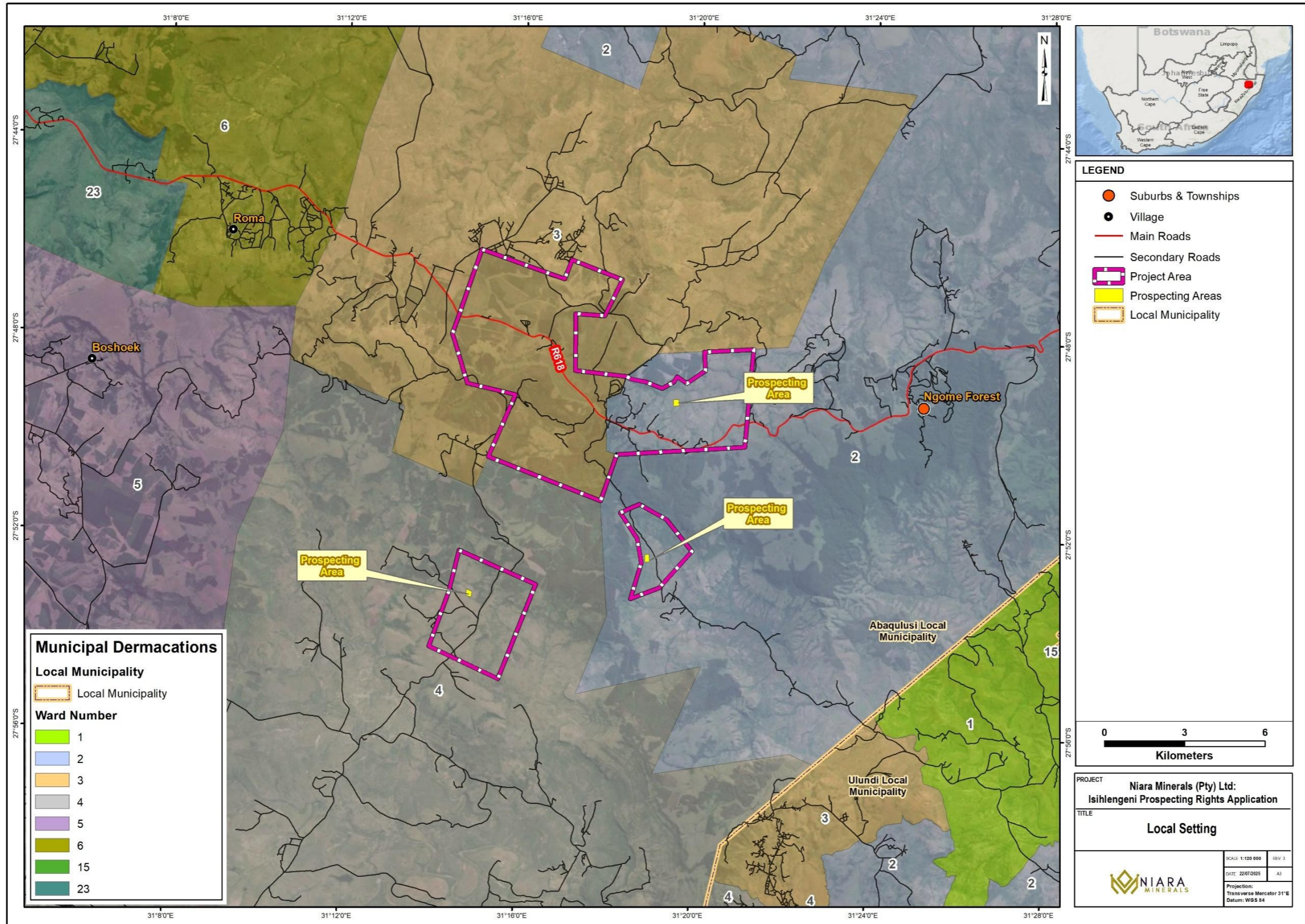


Figure 2-1: Locality Setting

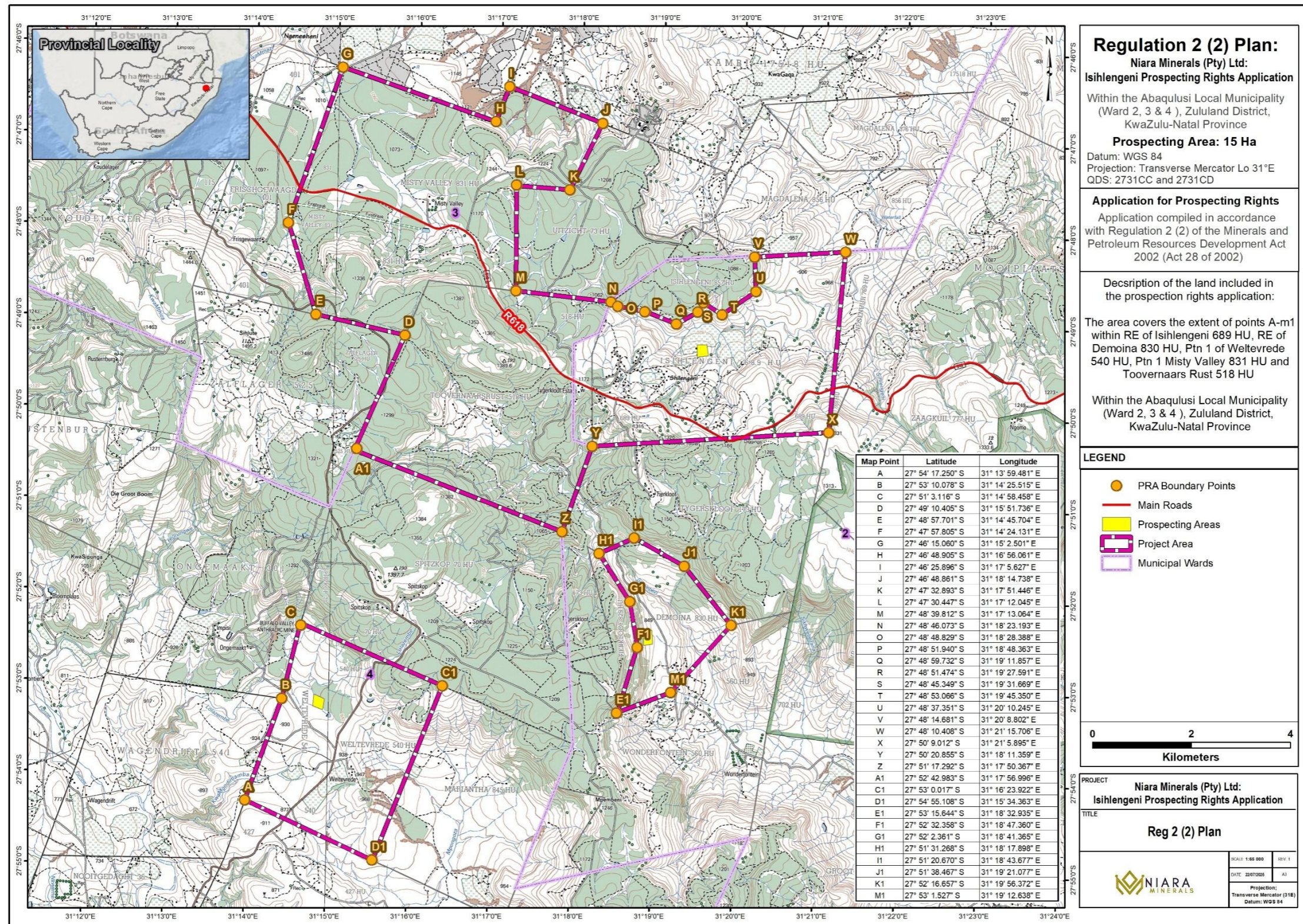


Figure 2-2: Regulation 2 (2) Plan

3 Scope of Work

3.1 3.1 Purpose of the Social Impact Assessment

The purpose of this SIA is to evaluate and understand the potential social and socio-economic consequences of the proposed prospecting activities by Niara Minerals, within the identified application area in Abaqulusi Local Municipality, KwaZulu-Natal Province. The SIA forms an essential component of the Basic Assessment Process in terms of the NEMA, and is undertaken in line with the principles of sustainable development, integrated environmental management, and public participation as required by GNR 982 of 2014 (as amended).

This assessment is specifically required to:

- Identify and evaluate potential positive and negative social impacts associated with prospecting activities.
- Provide a baseline profile of the socio-economic and cultural environment of the affected communities.
- Ensure the rights, concerns, and livelihoods of Interested and Affected Parties (I&APs) are adequately considered.
- Propose mitigation measures, enhancement strategies, and management recommendations to prevent or minimise adverse impacts and enhance potential benefits.

3.2 3.2 Methodological Framework

The SIA methodology aligns with national best practices, international guidelines such as the International Finance Corporation (IFC) Performance Standards, and incorporates both quantitative and qualitative data collection and analysis methods. The scope of work included the following key phases:

3.3 3.2.1 Desktop Review

- Review of relevant policy frameworks, legislation, and planning documents, including the MPRDA, NEMA, SPLUMA, and local IDPs.
- Analysis of demographic and socio-economic data from StatsSA, Census 2011, and Community Surveys.
- Review of historical land use, tenure patterns, and local socio-political dynamics.

3.4 3.2.2 Stakeholder Identification and Mapping

Identification of directly and indirectly affected groups, including:

- Adjacent landowners and occupants
- Traditional Authorities and tribal councils

- Local municipalities and ward councillors
- Local businesses and service providers
- Vulnerable groups (women, youth, elderly, people living with disabilities)
- Development of a stakeholder engagement register and issues matrix.

3.5 3.2.3 Fieldwork and Community Engagement

- Site visits and transect walks to observe settlement patterns, access routes, water sources, and socio-economic infrastructure.
- Informal interviews and focus group discussions with community members, traditional leaders, and municipal officials.
- Distribution and collection of socio-economic survey tools where feasible, supported by GPS-referenced mapping and photographic documentation.

3.6 3.3 Social Baseline Development

A detailed social baseline profile was compiled, capturing data across the following key themes:

- Population demographics (age, gender, household size, dependency ratios)
- Land tenure and land use patterns
- Employment and income levels
- Education and skills base
- Public health and access to health services
- Access to water, sanitation, and energy
- Community infrastructure and services
- Cultural heritage and sense of place
- Local governance and political context

3.7 3.4 Impact Identification and Assessment

The social impacts of the proposed project were evaluated across all life cycle phases, pre-construction, prospecting operations, decommissioning, and closure. The assessment focused on the following dimensions:

- Displacement risks and land access conflicts

- Impacts on livelihoods, agriculture, and natural resource use
- Perceptions of risk and project trustworthiness
- Economic opportunities, including job creation and procurement
- Changes in community cohesion, identity, and social fabric
- Pressure on local infrastructure and social services
- Cumulative effects in relation to other developments

Each impact was rated using a structured impact significance matrix that considers magnitude, extent, duration, reversibility, and probability, in line with NEMA EIA Regulations.

3.8 Mitigation and Management Measures

For each identified impact, appropriate mitigation, avoidance, enhancement, or offset measures have been proposed. These are intended to:

- Reduce harm to affected communities and vulnerable groups
- Promote local economic development
- Strengthen community participation and benefit-sharing
- Align with local development priorities and municipal planning instruments

4 Terms of Reference

This Terms of Reference (ToR) outlines the purpose, scope, objectives, and methodological framework that guided the preparation of the SIA for Niara Minerals (Pty) Ltd's proposed coal, pseudo-coal, and torbanite/oil shale prospecting project, located in the Abaqulusi Local Municipality, KwaZulu-Natal. The SIA forms an integral part of the broader Environmental Authorisation process, mandated under the NEMA and the associated Environmental Impact Assessment (EIA) Regulations, GNR 982 of 2014 (as amended). It further supports the applicant's compliance with Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), which requires a comprehensive consideration of environmental and social implications of prospecting activities.

Given the nature of the proposed prospecting work, which involves low-impact, invasive activities such as exploratory drilling of 10 to 15 boreholes across an approximately 15-hectare area, there exists a regulatory and ethical imperative to assess and manage the potential social consequences of the project. The project is situated within a socially and economically diverse rural landscape, characterised by traditional landholding systems,

vulnerable populations, and proximity to ecologically and culturally sensitive areas. This ToR outlines the framework for ensuring a socially responsible, participatory, and context-specific assessment of the potential impacts of the proposed development.

4.1 Objectives of the Social Impact Assessment

The SIA aims to systematically identify, analyse, and respond to the potential socio-economic impacts, both beneficial and adverse, of the proposed prospecting activities. The primary objectives are to:

- Establish a robust socio-economic and cultural baseline for the potentially affected communities;
- Predict and assess the potential social impacts across all phases of the prospecting programme;
- Facilitate inclusive and transparent stakeholder engagement in alignment with legal requirements and international best practice;
- Understand the distribution of social impacts among different demographic and interest groups, including women, youth, elderly persons, traditional leaders, and vulnerable households;
- Propose practical and responsive mitigation, management, and enhancement measures to support socially responsible project outcomes;
- Ensure alignment with applicable legislative instruments, including NEMA, MPRDA, and the IFC Performance Standards on Environmental and Social Sustainability, particularly Performance Standards 1 and 5.

Social Impact Assessment Framework

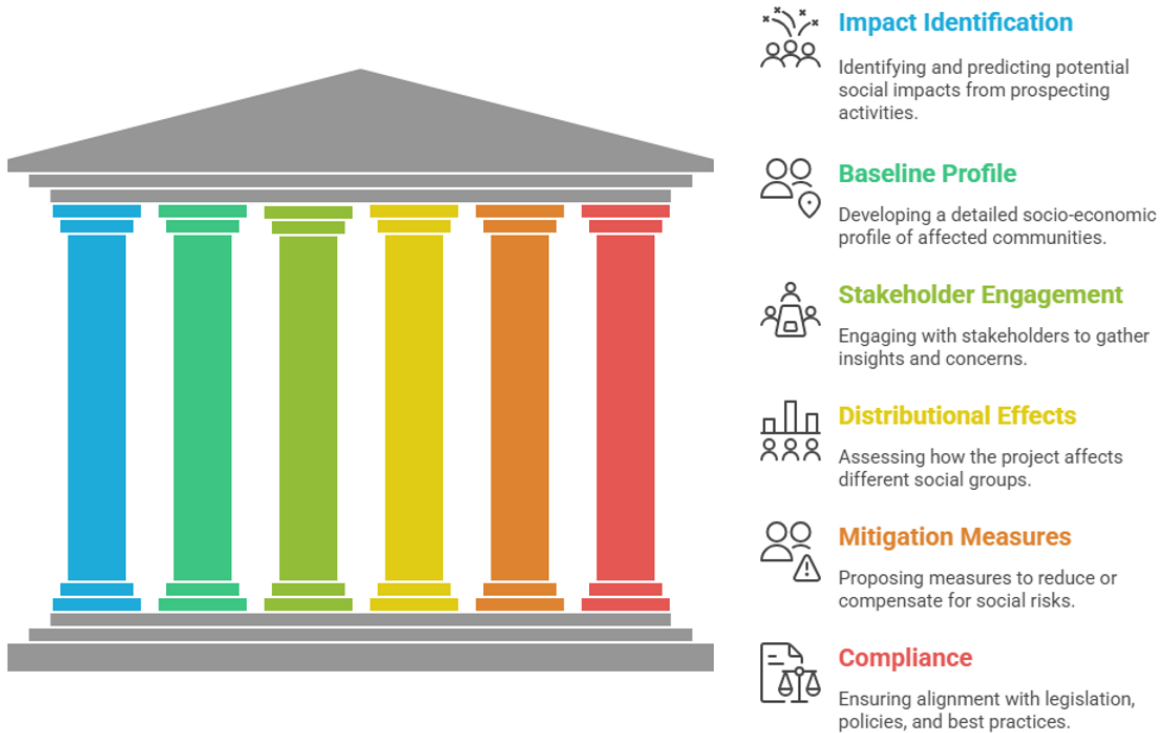


Figure 4-1: SIA Framework used for this Project

4.2 Key Tasks and Activities

The scope of work for the SIA comprises the following key components:

4.2.1 Baseline Data Collection

The study involves compiling comprehensive demographic, economic, and cultural data to characterise the social environment within and around the project area. This includes:

- Reviewing existing data from the 2022 and 2011 Population Censuses, Community Surveys, municipal Integrated Development Plans (IDPs), and Sector Plans;
- Mapping land tenure arrangements, settlement typologies, infrastructure and service provision, economic activities, and livelihood systems;
- Identifying vulnerable and marginalised groups, including those who may be disproportionately affected or benefit from the project.

4.2.2 Stakeholder Identification and Consultation

An inclusive Stakeholder Engagement Plan was developed and implemented to ensure active participation and transparency throughout the assessment process. Activities included:

- Identifying stakeholders such as ward councillors, traditional authorities, community-based organisations, landowners, municipal departments, and affected residents;
- Conducting interviews, focus group discussions, and public meetings in line with Section 2(4)(f) and 2(4)(k) of NEMA, which stress the importance of participation and equitable access to environmental governance;
- Documenting community concerns, knowledge systems, values, and preferences relevant to the proposed development.

4.2.3 4.3.3 Social Impact Identification and Analysis

The assessment identifies and analyses social impacts across the three primary phases of the project: site establishment, drilling/exploration, and site rehabilitation. Key impact categories include:

- Access to land and natural resources;
- Livelihood disruption or enhancement;
- Local employment and procurement opportunities;
- Community safety, health, and wellbeing;
- Impacts on social cohesion, cultural heritage, and traditional practices;
- Governance dynamics and stakeholder trust.

A structured impact rating methodology was applied, assessing the nature, extent, duration, intensity, probability, and reversibility of each identified impact.

4.2.4 Risk Mitigation and Management Planning

The SIA proposes clear and implementable measures to mitigate adverse social impacts and enhance the positive effects of the prospecting activities. These include:

- Recommendations for job reservation and local skills development;
- Conflict resolution mechanisms and grievance redress procedures;
- Ongoing monitoring indicators to ensure accountability and adaptive management;

- Contributions to long-term social sustainability aligned with the project's Environmental Management Programme (EMPr).

4.2.5 Reporting and Integration into Environmental Authorisation

A standalone SIA Report was compiled to ensure that social considerations are distinctly articulated within the Environmental Authorisation process. In addition:

- The SIA findings were integrated into the BAR and the EMPr;
- Compliance with national and international legislative frameworks, including PAIA (2000), NEMA, MPRDA, and the IFC Performance Standards, was maintained;
- The assessment aligns with the principles of transparency, responsiveness, and procedural fairness.

4.3 Geographic and Administrative Scope

The geographic scope of the SIA includes the full extent of the prospecting application area and its surrounding communities. These are located within the Abaqulusi Local Municipality, under the jurisdiction of the Zululand District Municipality. Specifically, the project spans multiple farm portions, including Isihlengeni, Demoina, Weltevrede, Misty Valley, and Toovernaars Rust. Social impacts are assessed in Wards 2, 3, 4, 5, 6, 15, and 23, demarcated in the project's local setting map. This coverage ensures that both direct and indirect socio-economic effects are adequately captured across the broader administrative and developmental context.

4.4 Limitations and Assumptions

While this SIA strives to provide an accurate, inclusive, and defensible account of the social implications of the proposed development, several limitations are acknowledged:

- Gaps in disaggregated socio-economic data at the sub-ward level;
- Survey fatigue and reduced responsiveness in some rural communities;
- Time and resource constraints during key agricultural or cultural seasons affecting availability of informants.

Despite these constraints, the study employed mixed-methods approaches and triangulation techniques to validate findings and ensure their reliability.

4.5 Ethical Considerations

All fieldwork and community engagement activities were conducted in strict adherence to ethical research principles, including:

- Obtaining informed consent from all participants;
- Respecting cultural protocols, traditional leadership structures, and community norms;
- Protecting the confidentiality and dignity of participants;
- Recognising and incorporating traditional knowledge and lived experiences in the assessment.

4.6 Details and Expertise of Specialist

Nolwazi Dlamini is a skilled Environmental Consultant with over three and a half years of experience in the environmental management field, with a specific focus on impact assessments across the mining and petroleum sectors. She currently serves as an Environmental Consultant at Temvelo Consultants (Pty) Ltd, where she has led and contributed to a wide range of regulatory and compliance-related assessments.

Nolwazi has in-depth experience as an Environmental Assessment Practitioner (EAP), having compiled and reviewed key statutory documentation, including Basic Assessment Reports (BARs), Scoping and Environmental Impact Assessments (S&EIAs), Environmental Management Programmes (EMPrs), Water Use Licence Applications (WULAs), Waste Management Licence Applications (WMLs), and environmental audits. She has worked extensively on mining projects across South Africa, equipping her with a sound understanding of the environmental and socio-economic contexts of rural and peri-urban communities, particularly in KwaZulu-Natal, Limpopo, and Mpumalanga.

Prior to joining Temvelo, Nolwazi worked in the petroleum industry, where she was involved in compliance monitoring, environmental gap closure, and permitting for Engen Petroleum depots and retail sites. She worked closely under an Air Quality Specialist, supporting the preparation of compliance reports related to Atmospheric Emission Licences (AELs), Water Use Licences (WULs), and Environmental Authorisations (EAs), while also drafting internal environmental procedures on air emissions, waste, and environmental health and safety.

Nolwazi has a strong command of research methodologies and stakeholder engagement principles, which she applies in compiling Social Impact Assessments (SIAs) and reviewing specialist inputs. She is particularly adept at evaluating potential social and environmental risks, synthesising complex data, and integrating community perspectives into planning and decision-making frameworks. Her core competencies include technical report writing, stakeholder consultation, regulatory compliance, and interdisciplinary coordination—all of which are critical in the development of robust and defensible SIAs.

Nolwazi holds a BSc Honours in Geography from the University of the Witwatersrand (2021) and a BSS in Geography and Environmental Management from the University of KwaZulu-Natal (2020). She is registered as a Candidate Environmental Assessment Practitioner under EAPASA and is actively working toward her

professional registration. Her growing portfolio reflects her commitment to ethical, participatory, and evidence-based environmental practice.

5 Project Description

The proposed prospecting activities by Niara Minerals will be undertaken in several phases, commencing with site establishment, followed by access road preparation, borehole drilling and sampling, and concluding with rehabilitation and environmental management. The total application area measures approximately 15 hectares and has been carefully selected to support the project's resource exploration goals while minimising environmental and social impacts. Each activity within the prospecting programme has been designed to align with applicable national legislation, including the NEMA, and the MPRDA

5.1 Site Establishment

The initial phase of the project will involve the limited clearing of vegetation at selected borehole locations to create access routes and designated operational zones. These clearings will be undertaken using a bulldozer or similarly light machinery, and only the minimum footprint necessary for drilling will be disturbed. Temporary infrastructure will be established to support the drilling operations, which may include equipment laydown areas, mobile site offices or control points, portable sanitation facilities, and water storage tanks. All site establishment activities will be executed in a manner that avoids unnecessary disturbance to vegetation, soil, and drainage patterns, with due regard for environmental sensitivity and safety.

5.2 Access Road Preparation

To the greatest extent possible, the project will make use of existing access roads to reduce the need for new surface disturbances. However, where new access routes are deemed unavoidable, they will be carefully planned based on the findings of environmental sensitivity assessments to avoid ecologically significant habitats and protected areas. Where constructed, new access roads will be developed in accordance with best environmental practices. These include the implementation of erosion control measures, adequate drainage systems, and minimal soil compaction. The objective is to ensure that access infrastructure facilitates prospecting activities while maintaining the ecological integrity of the surrounding landscape.

5.3 Borehole Drilling and Sampling

The core activity of the project involves the drilling of between 10 and 15 boreholes across the application area. Each borehole site will require a working area of approximately 500 square metres (25 m x 20 m) to accommodate the drill rig, support vehicles, containment facilities for drill cuttings, and operational safety zones. The cumulative disturbed area resulting from borehole drilling is expected to be between 0.5 and 0.75 hectares.

The boreholes may reach depths of up to 120 metres, depending on local geological conditions, and will be drilled using rotary core rigs to retrieve continuous core samples for geological analysis.

To maintain borehole integrity and prevent the contamination of groundwater aquifers, casing and grouting will be applied as necessary. Water required for drilling activities will either be sourced from local supply points or transported via mobile water tanks. The volume and use of water will be carefully monitored to avoid wastage, spillage, or over-abstraction, in line with the National Water Act, 1998 (Act No. 36 of 1998). Drill cuttings and wastewater will be managed in lined containment pits or tanks and disposed of in accordance with the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008). Final borehole locations will be confirmed following desktop geological analysis, field mapping, and non-invasive geophysical surveys to ensure optimal resource targeting while minimising environmental disturbance.

5.4 Environmental Management and Rehabilitation

All prospecting activities will be carried out in accordance with the environmental principles and duty of care obligations set out in NEMA and the MPRDA. Environmental management during the operational phase will be governed by applicable legal frameworks, including Sections 38 and 41 of the MPRDA, which mandate the duty to prevent environmental degradation and make financial provision for rehabilitation. In addition, the Waste Act will guide the management of drilling residues and other solid or liquid waste materials, while the National Water Act will inform the management of surface and groundwater resources.

Rehabilitation of disturbed areas will commence as soon as prospecting activities at a particular site are concluded. All boreholes will be properly sealed and decommissioned using appropriate grouting or capping techniques to prevent contamination or safety risks. Temporary infrastructure will be dismantled and removed, and disturbed surfaces will be reshaped where necessary to restore original land contours. Topsoil previously stockpiled during site clearance will be reapplied to promote soil recovery, and locally adapted indigenous vegetation will be introduced to facilitate ecological restoration.

Erosion control measures will be employed to stabilise soils, especially on sloped or disturbed terrain, and progressive rehabilitation will be prioritised throughout the life of the project rather than deferred until closure. A dedicated rehabilitation monitoring programme will be implemented to assess the success of restoration efforts and to identify and implement corrective measures where rehabilitation objectives are not being achieved. This adaptive approach ensures that environmental performance is maintained at a high standard and that ecological function is restored as close to baseline conditions as possible.

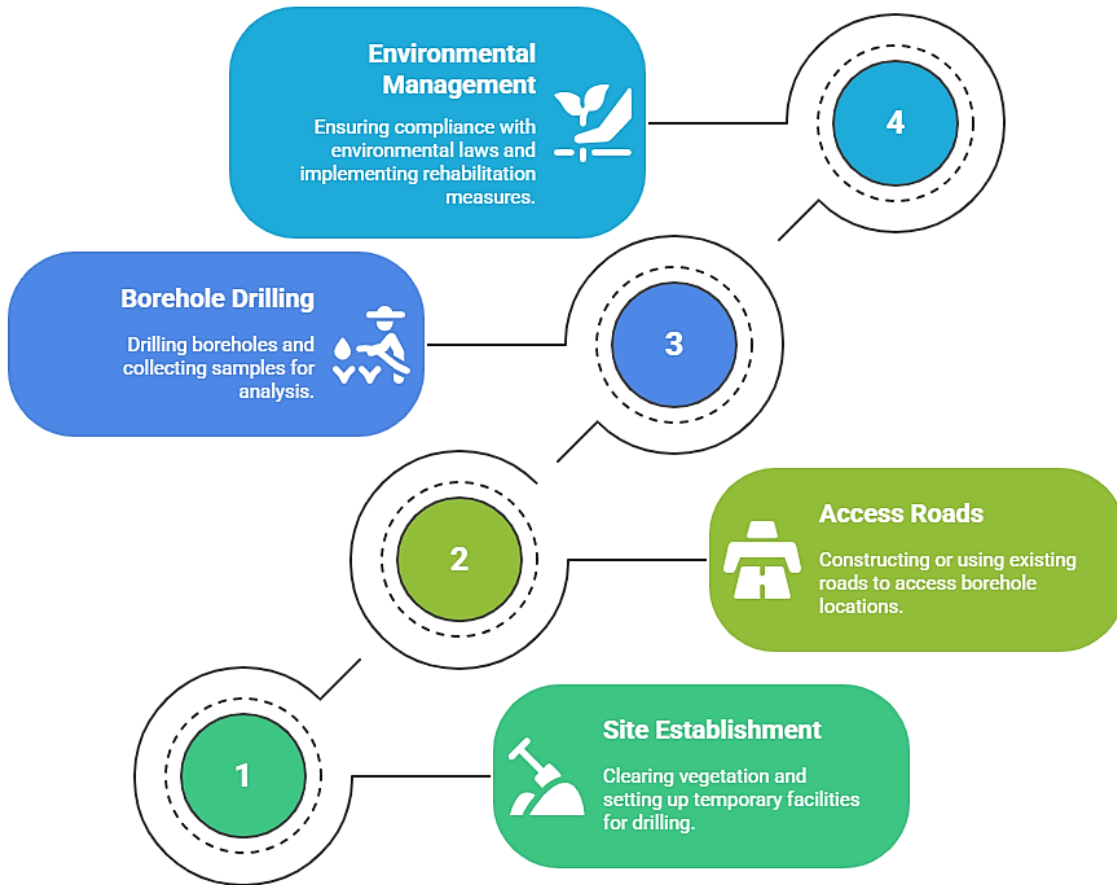


Figure 5-1: Prospecting Right Application Project Execution Phases

6 Legislative and Policy Framework

This section is dedicated to the institutional and legislative framework relevant to the assessment and management of socio-economic impacts related to the Project. It commences with a discussion of international best practice regarding social sustainability. This is followed by an overview of national legislation and policies that has bearing on the assessment and management of socio-economic impacts that are usually associated with mining projects.

In South Africa, socio-economic legislation is encapsulated under the NEMA detailing the type, extent and timeframes for public participation or stakeholder engagement during the EIA phase of a project. Similarly, NEMA states that social aspects of projects must be considered at the EIA phase (outlined below). There is also a number of other important South African legislation which informs the social content in which SIA's are compiled and which are outlined below.

The Social Impact Assessment has been completed in terms of NEMA Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) Appendix 6: Specialist Reports. Where applicable, the Report uses references from the International Finance Corporation's (IFC) Performance Standards.

6.1 The South African Constitution

The Constitution mostly speaks of human rights with the intention of establishing “a society based on democratic values, social justice and fundamental human rights”, which is achieved through the promotion of human dignity, equality and the advancement of human rights and freedoms. Some of the human rights that are explicitly stated in the Constitution are a person's right to equality, freedom of expression and association, political and property rights, housing, healthcare, education, access to information, and access to courts.

Section 24 of the Constitution stipulates that everyone has the right to an environment that is not harmful to their health or wellbeing. It also stipulates measures to be implemented to ensure that the environment is protected for both current and future generations.

Other relevant sections of the Constitution include Section 25 that refers to expropriation of property is permissible to effect land redistribution, or in order to achieve some other public purpose or for the public interest. However, Section 25 prohibits arbitrary deprivation of property as well as the expropriation of property without payment of just and equitable compensation, which has either been agreed upon or which has been decided by a court of law.

6.2 National Environmental Management Act, 1998 (NEMA)

This Act provides that sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions so as to ensure that development serves present and future generations. The Act further sets out the process for public participation.

6.3 Mineral and Petroleum Resources Development Act, 2002 (MPRDA)

The MPRDA provides the primary legal framework governing the management, exploration, and development of mineral resources in South Africa. In terms of Section 3(1) of the Act, the mineral resources of the Republic are the common heritage of all South Africans, with the State as custodian. Accordingly, all prospecting activities must be authorised in accordance with the provisions of the MPRDA to ensure that they are undertaken in a socially and environmentally responsible manner.

This project, initiated by Niara Minerals (Pty) Ltd, involves an application for a Prospecting Right under Section 16 of the MPRDA. This section requires an applicant to submit a formal application to the DMRE and meet specific conditions, including the submission of a plan outlining the land to be prospected and proof of technical and financial capability.

In addition, Section 17 outlines the criteria that the Minister must consider when granting a Prospecting Right, including whether the proposed activity will promote economic growth, employment, and the equitable access to mineral resources, and whether the applicant has access to the required financial and technical resources.

Public consultation and notification obligations are mandated under Section 10, which requires the Regional Manager to notify and consult with I&APs upon receipt of an application. This is particularly important in the context of this SIA, as it ensures that community voices and concerns are considered prior to the granting of a Prospecting Right.

The environmental responsibilities of the applicant are covered under Section 38, which stipulates that holders of prospecting rights must manage environmental impacts in accordance with the NEMA. Moreover, Section 39 mandates the submission of an EMPr, which must identify potential environmental and social impacts, along with mitigation measures.

Furthermore, Section 40 requires consultation with relevant government departments that administer laws relating to the environment, water, and land use, while Section 41 obliges the applicant to make financial provision for the rehabilitation of environmental damage resulting from prospecting activities.

Collectively, these provisions of the MPRDA frame the legal obligations that underpin the environmental and social accountability of the proposed prospecting project. The SIA, therefore, plays a key role in satisfying the MPRDA's intent by identifying socio-economic risks, engaging stakeholders, and recommending appropriate mitigation and enhancement measures to ensure that the project proceeds with due regard for people, land, and the environment.

6.4 South African Mining Charter

The Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, commonly referred to as the Mining Charter, was developed in terms of Section 100(2)(a) of the MPRDA. Its purpose is to facilitate meaningful transformation of the mining sector to redress historical inequalities and ensure that the benefits of South Africa's mineral wealth are equitably shared.

Although the Charter primarily targets mining rights holders, its principles and obligations are increasingly applicable to prospecting right applicants, particularly where prospecting is expected to lead to mining, or where early socio-economic and stakeholder risks must be managed. As such, Niara Minerals (Pty) Ltd, as the project proponent, is expected to uphold the transformation and developmental ethos of the Charter, even during the early stages of exploration.

The Mining Charter (2018), which is the current version in force, sets out several key elements relevant to the Social Impact Assessment and stakeholder engagement process:

Meaningful Participation and Ownership: Even at the prospecting stage, companies are encouraged to ensure that historically disadvantaged South Africans (HDSAs), including host communities, have avenues for future inclusion in ownership structures as the project progresses. Early engagement fosters trust and lays the foundation for compliance with future ownership targets.

Employment Equity and Inclusive Procurement: The Charter promotes local employment, gender equity, and procurement from black-owned and local community-based enterprises. Although limited employment is generated during prospecting, any short-term opportunities (e.g., security, transport, clearing) must be equitably distributed to enhance developmental benefit and comply with the local procurement and supplier development objectives.

Mine Community Development (MCD): This element obliges mining companies to invest in Social and Labour Plans (SLPs) aligned with the development priorities of host communities. While SLPs are not required at the prospecting stage, early identification of community needs and potential development partnerships through the SIA helps prepare the groundwork for MCD compliance should the project advance to mining.

Human Resources Development: The Charter highlights the need for skills development and training, particularly for youth and women in local communities. Even within prospecting operations, there is an expectation that basic training or awareness (e.g., on health and safety, environmental protocols) be extended to local workers, contributing to long-term socio-economic upliftment.

Monitoring and Reporting: Transparency, community engagement, and public accountability are key. The Mining Charter requires consistent and credible reporting of community commitments, which means that all stakeholder engagements and social risk mitigation measures implemented during prospecting must be well documented and reported.

In the context of this SIA, the Mining Charter underscores the imperative for inclusive, developmental, and ethical conduct, even in the preliminary stages of mineral exploration. Niara Minerals is therefore expected to use the prospecting period not only to evaluate mineral potential but also to establish a responsible social footprint by upholding the values of transformation, equity, and sustainable community development as outlined in the Charter.

6.5 Comprehensive Rural Development Programme (“CRDP”), 2009

The CRDP aims at being an effective response to poverty alleviation and food security by maximising the use and management of natural resources to create “vibrant, equitable and sustainable rural communities”. The vision of

the CRDP is to be achieved through a three-prolonged strategy. The second strategy, Rural Development, pertains to this project in that it aims to:

- Promote access to community and social infrastructure;
- Focuses on the development of new and the rehabilitation of existing infrastructure;
- Improves and develop infrastructure conducive to economic development – e.g., distribution and transportation infrastructure, water and electricity infrastructure, and telecommunications infrastructure; and
- Improves and develop infrastructure conducive to social development – e.g., sanitation infrastructure, health infrastructure, sports and recreation infrastructure, and educational infrastructure (especially ABET).

The CRDP objectives are a critical yardstick against through which the interventions in the rural areas must be measured.

6.6 National Strategy for Sustainable Development and Action Plan (2011)

The National Strategy for Sustainable Development and Action Plan (“NSSD”, 2011) is a proactive strategy that regards sustainable development as a long-term commitment, which combines environmental protection, social equity and economic efficiency with the vision and values of the country. It is a milestone in an ongoing process of developing support, and initiating and up-scaling actions to achieve sustainable development in South Africa (DEA, 2011) and has outlined the following strategic objectives:

- Enhance systems for integrated planning and implementation;
- Sustain ecosystems and use natural resources efficiently;
- Move towards a green economy;
- Build sustainable communities; and
- Respond effectively to climate change.

6.7 White Paper on Local Government (1998)

This White Paper sets the framework for a developmental local government system that is committed to working with citizens, groups and communities to create sustainable human settlements, which provide for a decent quality of life and meet the social, economic and material needs of communities in a holistic fashion.

6.8 Municipal Systems Act (Act No. 32 of 2000)

The Municipal Systems Act provides for the principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of local communities, and to ensure universal access to essential services that are affordable to all.

6.9 Extension of Security of Tenure Act (ESTA) (Act No. 62 of 1997)

This Act confers certain rights to non-landowning residents of a property, where such rights are linked to the period of time in which persons have been resident on the land. The Act applies to all rural areas in South Africa, regardless of whether the land is used for farming or mining purposes. No occupier can be evicted unless the provisions of ESTA have been strictly followed and a Court Order has been obtained.

6.10 Interim Protection of Informal Land Rights Act 31 Of 1996

The Interim Protection of Informal Land Rights Act, 1996 (IPILRA) is a cornerstone piece of legislation for the protection of land tenure rights in South Africa, particularly in rural and traditional authority areas. It provides legal safeguards for individuals and communities who occupy or use land without formal title deeds, including under customary law. Given that the proposed prospecting area falls within communal land in the Abaqulusi Local Municipality, governed in part by traditional authorities, IPILRA is directly applicable to this project.

In terms of Section 1 of IPILRA, no person may be deprived of informal rights to land without their consent, except by expropriation under a law of general application. Informal rights include those acquired through customary tenure systems, including the rights of occupation, use for grazing or agriculture, access to resources, or residence, many of which are prevalent in the project's primary and secondary zones of influence.

For this prospecting project, the implications of IPILRA are significant:

- **Consent of Rights Holders:** Prospecting may require access to land used communally for farming, grazing, or settlement. Therefore, the free, prior, and informed consent of those holding informal rights is required before any activity can legally proceed. This includes not only traditional leaders (such as izinduna and amakhosi), but also individual land users, as their rights are independently recognised under the Act.
- **Customary Law Recognition:** IPILRA affirms that tenure rights held under customary systems must be respected. As such, engagement protocols must be culturally appropriate, and consultation should reflect the governance structures and traditions of the community, ensuring legitimacy and social acceptance of the project.
- **Protection Against Arbitrary Access:** The Act prevents prospecting companies from gaining access to land through agreements made solely with state entities or traditional councils, without the involvement and

agreement of the actual land users. This is particularly important given the risk of power imbalances, where elite gatekeepers may act without the mandate of the broader community.

- **Procedural Fairness:** IPILRA places a strong emphasis on procedural fairness, mandating that communities must be fully informed of the nature, scope, and potential consequences of any proposed project before granting consent. In the context of this SIA, this has direct bearing on how public participation and stakeholder consultation is conducted.

Failure to adhere to IPILRA could expose the project to legal challenge, social resistance, or delays. Therefore, compliance with the Act is not only a legal requirement but a critical social license obligation, reinforcing the need for early, inclusive, and meaningful consultation with land-rights holders.

In sum, IPILRA reinforces the ethical and legal responsibility of Niara Minerals (Pty) Ltd to obtain genuine consent from affected communities, treat land users as rights holders, not merely stakeholders, and align all land access procedures with customary norms and democratic values. The SIA process must therefore be designed to ensure that the rights protected by IPILRA are upheld in both principle and practice.

The two statutes must be read to work together, not to conflict. The only way to do that is to hold that both IPILRA and the MPRDA apply. The community must be consulted under the MPRDA, and must consent in terms of IPILRA. This is not only the best way to interpret the statutes in light of their purpose, it is the only interpretation that is consistent with international law and that promotes constitutional rights.

6.11 The Department of Mineral Resources Consultation Guidelines

The DMRE Consultation Guidelines, formally titled “Guideline for Consultation with Communities and Interested and Affected Parties in Terms of the Mineral and Petroleum Resources Development Act (MPRDA), 2002”, are critical for ensuring that the public participation processes associated with prospecting rights are meaningful, legally compliant, and socially responsible.

These guidelines are issued to support the implementation of Section 10, Section 16(4)(b), and Section 22(4)(b) of the MPRDA, which require that applicants for prospecting or mining rights consult with landowners, lawful occupiers, and I&APs prior to the granting of such rights. In essence, the DMRE Guidelines give operational effect to the consultation obligations enshrined in the MPRDA.

For the Niara Minerals (Pty) Ltd prospecting application in the Abaqulusi Local Municipality, the DMRE Consultation Guidelines are directly applicable, as they outline the minimum standards and procedures for engaging local communities, land-rights holders, and traditional authorities in a manner that respects legal, cultural, and procedural norms.

Key elements of the Guidelines relevant to this SIA include:

- **Meaningful Consultation Defined:** The guidelines stress that consultation is not a tick-box exercise, but a process of information sharing, listening, dialogue, and agreement-seeking. The applicant must explain the nature and extent of the proposed activities, timelines, and possible social/environmental impacts in a language and manner accessible to local communities.
- **Proof of Consultation:** The applicant is required to submit documentary evidence of consultation, including notices, attendance registers, minutes of meetings, and issues raised, which must be attached to the application for a Prospecting Right. These documents must demonstrate that reasonable opportunity was provided for affected persons to voice their views and raise concerns.
- **Inclusivity and Accessibility:** The guidelines emphasize that all affected persons, including women, youth, the elderly, informal land users, and persons with disabilities, must be included in the consultation process. It cannot be limited to engagement with traditional councils or elite gatekeepers only.
- **Respect for Customary Structures:** Where land is under traditional leadership or communal tenure, the guidelines require engagement with traditional authorities, but also caution that this should not replace or override direct engagement with land users and community members, especially those with informal land rights (as also protected under IPILRA).

Timeline Alignment: Consultation must take place prior to the submission of the right application, and not during or after project approval stages. Failure to consult timeously can result in the application being rejected or returned for further consultation.

Integration with Environmental Processes: Where the consultation forms part of the Environmental Authorisation process under NEMA, the two processes must be aligned and mutually reinforcing, ensuring that consultation undertaken for the Social Impact Assessment is recognized in both the EIA and MPRDA applications.

In the context of this project, adherence to the DMRE Consultation Guidelines ensures that the SIA is credible, legally defensible, and capable of securing a social licence to operate. It also helps to reduce the risk of community conflict, legal appeal, or reputational damage, which can arise from inadequate or exclusionary consultation processes.

By embedding the principles of transparency, inclusion, and procedural fairness outlined in the DMRE Guidelines, Niara Minerals (Pty) Ltd and its appointed specialists demonstrate a commitment to ethical resource development and proactive community engagement from the earliest stages of project planning.

6.12 Overarching International Standards and Policies

6.12.1 Basic Human Rights

Basic human rights can be defined as universal moral principles or norms that describe certain standards of human behaviour. Each human being is entitled to these fundamental rights, simply because he or she is a human being, regardless of nationality, language, religion, locality, ethnic origin or any other status.

A foundational principle of basic human rights is that States must protect against human rights abuse within their territory and/or jurisdiction, including abuses caused by business enterprises. States should thus exercise adequate oversight in order to meet their international human rights obligations when they contract with, or legislate for, business enterprises to provide services that may negatively impact upon human rights.

In 2011 the UN's Human Rights Council endorsed the "Guiding Principles on Business & Human Rights" and stated the following: "As the basis for embedding their responsibility to respect human rights, business enterprises should express their commitment to meet this responsibility through a statement of policy". The operational principles of corporate responsibility to respect human rights are briefly summarized below. Enterprises should:

- Comply with all applicable laws and respect internationally recognized human rights, wherever they operate;
- Formulate and implement policies to meet their responsibility to respect human rights;
- Carry out human rights due diligence to identify, prevent, mitigate and account for how they address their impacts on human rights. Due diligence should be ongoing, recognizing that the human rights risks may change over time as the business enterprise's operations and operating context evolve;
- Identify and assess actual or potential adverse human rights impacts as a result of their own activities or due to their business relationships;
- Involve meaningful consultation with potentially affected groups and other relevant stakeholders;
- Take appropriate action within the organisation through internal decision-making, budget allocations and oversight processes;
- Track the effectiveness of responses to verify whether adverse human rights impacts are being addressed, based on qualitative and quantitative indicators, and feedback from internal and external sources and stakeholders; and
- Provide for or co-operate in their remediation through legitimate processes, where business enterprises identify that they have caused or contributed to adverse impacts.

6.12.2 DBSA Environmental and Social Safeguards Standards

The DBSA is a development finance institution involved in delivering developmental infrastructure in Southern Africa and the Southern African Development Community (SADC). It aims to advance development that improves the quality of life of people and support economic growth and regional integration. The DBSA has developed the Environmental and Social Safeguards Standards as an extension of its Environmental Appraisal Framework and the Social and Institutional Appraisal Guidelines. It has developed these to synchronise with the environmental and social standards of other Development Finance Institutions such as the Global Environmental Fund (GEF) Minimum Environmental and Social Safeguards Standards, the World Bank Group EHS Guidelines, the IFC Performance Standards and the African Development Bank AfDB Safeguards (DBSA, 2015).

6.12.3 Global Environmental Fund (GEF) Minimum Standards

The GEF unites 183 countries in partnership with international institutions, civil society organisations and the private sector to address global environmental issues while supporting national sustainable development initiatives (DBSA, 2015). It is the largest public funder of projects providing grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants.

6.12.4 Equator Principles

The Equator Principles are a set of principles for determining, assessing and managing social and environmental risk in project financing. The Equator Principles were developed by private-sector banks and were launched in June 2003. Equator Principles Financial Institutions (EPFI) can voluntarily agree to adhere to Equator Principles, and by doing so, agree to apply them to all new project financings. The aim is that EPFIs only finance projects which are developed in an environmentally and socially sound manner. The Equator Principles incorporate, by reference, the IFC Performance Standards and the World Bank Group EHS Guidelines. The importance of climate change, biodiversity and human rights are recognised in these principles and negative impacts on project-affected ecosystems, communities and the climate should be avoided where possible.

6.12.5 IFC Policy on Environmental and Social Sustainability

The IFC is an international financial institution that offers investment, advisory, and asset management services to encourage private sector development in developing countries. The IFC's Performance Standards offer a framework for understanding and managing environmental and social risks for high profile, complex, international or potentially high impact projects. They define clients' responsibilities for managing their environmental and social risks and are regarded as an international benchmark which have been adopted by many organisations as a key component of their environmental and social risk management (IFC, 2012). The Performance Standards provide guidance on how to identify risks and impacts and are designed to help avoid,

mitigate, and manage risks and impacts as a way of doing business in a sustainable manner, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities.

6.12.6 Environmental, Health, and Safety (EHS) Guidelines

The World Bank Group EHS Guidelines are referred to in Performance Standards 1 as the technical reference documents with general and industry-specific examples of good international industry practice, to be used as a technical source of information during project appraisal. The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank, the IFC and the DBSA, and that are generally considered to be achievable in new facilities at reasonable cost using existing technology. For the above, the EHS Guidelines establish performance indicators that should be achieved as a minimum. The EHS Guidelines provide performance levels and measures to be achieved in new facilities by existing technology at reasonable costs. The EHS Guidelines should be tailored to each project based on the outcomes of an environmental assessment. The requirements of these guidelines have to be accomplished during the different implementation phases of the project. If the host country has more stringent performance indicators, then these must be guaranteed.

6.13 Provincial and Local Level Policy and Planning

6.13.1 KwaZulu-Natal Economic Growth and Development Strategy (EGDS)

KwaZulu-Natal has taken an innovative approach to the development of its Economic Growth and Development Strategy. Although the KZN EGDS is closely aligned with the National Development Plan, it also considers KwaZulu-Natal's province-specific comparative and competitive advantages, as well as linkages to key provincial strategic objectives.

The primary objective of the KZN EGDS is to promote inclusive economic growth that creates employment opportunities, reduces poverty, and narrows inequality in the province. The growth strategy is anchored on several key pillars including sector development, inclusive and shared growth, spatial equity, regional integration, sustainable human development, and environmental sustainability, all with clearly defined strategic targets over the medium to long term.

The focal point of the EGDS is the creation of decent, labour-absorbing jobs that positively impact the provincial economy and improve the quality of life for KwaZulu-Natal's residents.

The EGDS focuses on specific strategic interventions that unlock and support the implementation of the initiatives noted in KwaZulu-Natal's economic growth and development path. Some of the key interventions that link with this Project include:

- Effective and efficient BBBEE that empowers previously disadvantaged individuals to participate meaningfully in the economy;

- Skills development and capacity building aligned to the province's identified growth trajectories;
- Reducing the cost of doing business in KwaZulu-Natal and eliminating barriers to entry;
- Support to cooperatives and SMMEs to ensure sustainable development;
- Project financing.

6.13.2 KwaZulu-Natal Provincial Spatial Development Framework (PSDF)

The KwaZulu-Natal Provincial Spatial Development Framework (PSDF) aims to provide a coherent path for spatial development that promotes economically and socially balanced growth between rural and urban areas across the province.

The PSDF acknowledges the limited long-term sustainability of mining and highlights the need to diversify the provincial economy. Nonetheless, it recognises that mineral resource extraction continues to contribute significantly to job creation and supports associated sectors such as energy production and manufacturing.

Mining activities, however, are associated with a range of environmental challenges including water and soil contamination, air pollution, and land degradation, which pose a threat to food security by impacting high-potential agricultural land. As such, the PSDF emphasises the importance of implementing effective environmental management systems. These systems should be designed to guide the monitoring and regulation of mining operations during and after closure to mitigate large-scale pollution and ensure the land's agricultural potential is rehabilitated.

The KZN PSDF is also intended to guide the coordination, alignment, and integration of plans and programmes from all sector departments and state-owned enterprises operating in the province. It encourages alignment with municipal SDFs, IDPs, and LUMS to ensure that local implementation reflects the broader vision of the provincial framework.

6.13.3 KwaZulu-Natal Mining and Biodiversity Guideline

The KwaZulu-Natal Mining and Biodiversity Guideline provides practical guidance to the mining sector on addressing biodiversity concerns in the South African context. The document is the result of collaboration among various institutions, programmes, and industry players. It serves as a practical and user-friendly tool for integrating biodiversity considerations into the planning and operational phases of mining.

The Guideline does not exempt mining operations from complying with relevant legislation but rather complements statutory requirements. It encourages sound environmental decision-making by applying six key principles:

- Apply the law;
- Use the best available scientific and spatial information;
- Engage stakeholders comprehensively and meaningfully;
- Employ best-practice EIA methods to identify, assess, and evaluate impacts on biodiversity;
- Apply the mitigation hierarchy in planning and execution and develop a robust Environmental Management Programme (EMP);
- Ensure effective implementation of the EMP, including provisions for adaptive management.

7 Approach and Methodology

Social impacts are those impacts that affect the level of social and socio-economic activities in a region either positively or negatively. For instance, they directly affect the socio-economic well-being of residents in an area by changing employment levels, education and skills levels, household size and income levels. A socio-economic impact assessment traces demographic and livelihood developments in the local economy. It then measures the cumulative effects of those developments and patterns. The impact region is determined by the nature of the proposal and can include the entire country, province, an individual municipality or a combination of municipalities. In this case, the impact will mostly be projected for the local municipality where Isihlengeni is situated, namely the uMfolozi Local Municipality, and the broader KwaZulu-Natal province.

The SIA evaluates the human behaviour within a particular social context and how these are likely to impact on the Project. The South African society is shaped by a variety of cultures, traditions, political and religious beliefs which creates a rather complicated context within which the economy must operate. The specific historical context of South Africa also develops the perceptions of people which are often formed based on preconceived ideas rather than accurate information. Estimating the socio-economic impact of a project or development is very helpful in understanding the potential benefits of various forms of growth and changes made in the built environment.

7.1 Definition

In order to define Socio-economic Impact Assessment, it is important to understand the difference between Social Impact Assessment and Socio-economic Impact Assessment. Internationally, SIA is seen as an overarching framework that embodies the evaluation of all impacts on humans and on all the ways in which people and their communities interact with their socio-cultural, economic and bio-physical environment. SIA has strong links with a wide range of specialist sub-fields involved in the assessment of areas such as: aesthetic impacts, archaeological and heritage impacts, community impacts, cultural impacts, demographic impacts, development impacts,

economic and fiscal impacts, gender assessment, health impacts, indigenous rights, infrastructural impacts, institutional impacts, political impacts, poverty assessment, psychological impacts, resource issues, tourism impacts and other impacts on societies (Vanclay, 2003: 7). Social Impact Assessment variables include the economic environment (compare Vanclay, 2003: 85-89; Burdige, 2004:101; Taylor, Bryan & Goodrich, 2004: 75). Social Impact Assessments and Economic Impact Assessments are often undertaken separately, but they are complementary and sometimes overlap. The social and economic environment cannot be separated, as these environments are closely entwined.

The current practice in South Africa is similar to the international practice as described in the previous paragraph, and Social Impact Assessments generally include social as well as economic impacts. The terms Social Impact Assessment and Socio-economic Impact Assessment are often confused and refer to the same assessment in many instances. The University of Wisconsin defines Socio-economic Impact Assessment as an examination of how a proposed development will change the lives of current and future residents of a community. The Australian Government Department of the Environment and Heritage (2005:5) states that Socio-economic Impact Assessment is a useful tool to help understand the potential range of impacts of a proposed change, and the likely responses of those impacted on if the change occurs. The International Association for Impact Assessment (2003) defines Social Impact Assessment as including the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programmes, plans, projects) and any social change processes invoked by these interventions. The primary purpose of SIA is to bring about a more sustainable and equitable biophysical and human environment.

From an international perspective, Socio-economic Impact Assessment falls under the umbrella of Social Impact Assessment. The SIA will look at the social environment in more depth than a Socio-economic Impact Assessment. For South African purposes, the two terms are generally used as one and the same. Social and economic impacts should be integrated in order to provide a comprehensive and cost-effective outcome and avoid duplication. For the purpose of this Report the term Socio-economic Impact Assessment will be used.

7.2 Benefits of SIA

Considering potential social impacts of proposed developments have numerous benefits. The benefits of assessing social impacts are (Bezuidenhout, 2013):

- It enriches the decision-making process by potentially resulting in a different, better-informed decision than the one that would otherwise have been made.
- Decision-making criteria are applied consistently.
- A more holistic view of developments and their impacts are obtained.

- Provision of mitigation measures for negative social impacts, which are included as conditions for issuing an authorisation, and thereby ultimately enforced.
- Enhancement of positive social impacts that a development may have.
- Promotion of transparency and accountability in all applications for new developments.
- Social learning by developers, planners, decision-makers and the community, resulting in successful implementation of projects.
- Contributing to sustainability because development is more successful and sustainable if it has the “buy-in” of the communities that are affected by it –a “social licence to operate”.

7.3 Approach

Socio-economic Impact Assessments are directly related to decision-making (Branch et al., 1984:6). Probable undesirable social and economic effects of development need to be identified before they occur in order to make recommendations for mitigation (Interorganizational committee, 2004: 94). According to Henry (1990:93) Social Environmental Impact Assessment (SEIA) intends to minimise negative impacts due to mismatches between people and projects by indicating the social and economic impact of projects prior to implementation, by facilitating project modification and mitigation through public input or by incorporating social values and priorities such as social equity. SEIA that involves the community minimizes local resistance to projects and therefore reduce disruption; they increase project success, and they prevent major planning disasters and associated costs (Burdge, 2004:248).

7.4 Methodology

The SIA used both quantitative and qualitative data collection techniques. In terms of the quantitative data, data from Statistics SA was used to understand the local social circumstances of the area. In terms of the qualitative method interviews were conducted to understand the affected communities’ perceptions, how they view themselves and the environment around them.

7.4.1 Definition of the Study Area

According to the IFC (2003), the study area for an impact assessment can be defined as the area that is likely to experience impacts arising from or exert influence on, the project or activity being assessed. Defining the study area is used to determine a project’s area of influence and responsibilities. It also provides guidance on the area to be monitored, and managed, and assists with defining stakeholders, and the tools needed to gather data for identifying project impacts.

Socio-economic impacts can usually be divided into three broad categories, namely:

- Physical intrusion, which refers to Project infrastructure and Project-related activities' material presence in an area. These could lead to changes in, for example, land ownership, noise, dust, and changes in the visual landscape. Such changes typically extend to land uses within a few kilometres from the Project site;
- Economic pull occurs when a Project exerts changes and impacts on job creation, in-migration of workers and jobseekers, multiplier effects in the local and regional economy, all of which can lead to an increased risk of social pathologies and community conflict. These impacts can typically be expected in settlements and towns closest to the Project; and
- Indirect or induced impacts that are by-products or ripple-effects of the impacts in the foregoing two categories. These include increased pressure on local services and resources (as a result of population influx), multiplier effects in the local and regional economy (as a result of the creation of new jobs, and Project-related expenditure), macro-economic benefits of the Project as well as benefits derived from corporate social investment by the Project proponent.

Accordingly, three concentric study areas were defined for the purposes of this study, which correspond to the three categories of impacts listed above. The definition of the zones of influence was also, to some extent, influenced by what socio-economic data is available, these being at national, provincial, district, local municipal and ward level.

The three zones of influence are as follows:

- Primary Zone of Influence (also referred to as the site-specific study area): The area likely to experience social impacts associated with the physical intrusion by Project infrastructure and Project-related activities. This study area is defined as the extent of the farm portions on which the Project footprint is located, the immediately adjacent farm portions and the communities adjacent to the current project area;
- The Secondary Zone of Influence (also referred to as local study area): The area likely to experience impacts related to the "economic pull" exerted by the Project. The secondary study area was defined as proposed Isihlengeni Prospecting which encompasses the primary study area. This area is defined as the affected local municipality in which the Project is located.
- Social impacts are those impacts that affect the level of social and socio-economic activities in a region either positively or negatively. For instance, they directly affect the socio-economic well-being of residents in an area by changing employment levels, education and skills levels, household size and income levels. A socio-economic impact assessment traces demographic and livelihood developments in the local economy. It then measures the cumulative effects of those developments and patterns. The impact region is determined by the nature of the proposal and can include the entire country, province,

an individual municipality or a combination of municipalities. In this case, the impact will mostly be projected for the local municipality where Isihlengeni is situated, namely the uMfolozi Local Municipality, and the broader KwaZulu-Natal province.

Three study areas were defined: The primary study area, the secondary study area and the regional study area. The primary study area was defined as the properties that fall within the Mining Right boundary.

The methodology followed in undertaking the study included the following:

7.4.2 Approach and Data Collection Methods

Two research approaches can be distinguished, namely a quantitative approach and a qualitative approach. A combination of these two methods can also be followed. DEAT (2006) uses the example of having to obtain information on the number and availability of community facilities.

The use of statistical data to obtain insight about the number and availability of community facilities was used (quantitative approach). It was explored further by obtaining the views and perceptions of the people on the effectiveness and accessibility of these facilities (qualitative approach). “By using both qualitative and quantitative methodology more comprehensive data will be obtained, and a more holistic product would result, without excluding important areas of assessment” (DEAT, 2006).

The approach taken to data collection and to the SIA in general, was to capitalise as much as possible on collaboration with other members of the client team, as well as other specialists involved in the EIA. Particular instances of such collaboration included the following:

- Investigative site visit was undertaken in June 2025.
- Statistics South Africa 2022 data,
- A literature review of the Integrated Development Plan, Spatial Development Framework,
- Scan and analysis of the proposed Project Draft Scoping Report, Comments and Responses Report and various specialist studies; and
- The findings of other relevant specialist studies were reviewed to identify cross-disciplinary linkages, i.e., impacts assessed by one specialist discipline that could give rise to indirect or induced impacts relevant to another discipline. As an example, Project induced changes in groundwater quality and quantity could cause social impacts by altering the availability and/or quality of water for domestic consumption. Specific data collection activities undertaken during this study are outlined below.

7.4.3 Quantitative Technique: Desktop Review

Quantitative research can be described as an inquiry into a social or human problem, based on a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true (Sogunro, 2001).

The most common source of quantitative data in SIA is census data, which is used to produce historic and demographic profiles. It can also be used to provide extensive baseline information. Other official statistics, like crime statistics, are also useful and credible (Taylor et al, 2004).

A desktop review of available documents to obtain relevant socio-economic baseline information on the defined study areas was conducted. The desktop study consisted of a review of the relevant local and district municipal documentation, which was incorporated into the baseline profile where relevant. This included the Integrated Development Plans (IDPs) for the uMfolozi Local Municipality, and King Cetshwayo District Municipality.

Documents reviewed include:

- Provincial reports, district and local municipal IDPs and Local Economic Development (LED) Plans.
- Secondary data from Census 2022 and Community Survey 2016 was obtained from Wazimap (www.wazimap.co.za), an online open-source census data management database that manipulated census data to conform to the new municipal ward boundaries established in 2016. Data obtained from Wazimap was processed in MS Excel and compared on various levels to determine socio-economic trends in the area. This data, together with the information obtained from the IDPs, were used to compile the baseline socio-economic profile.
- Other specialist studies and reports concerning the Project, specifically the Environmental and Socio-Economic Scoping report compiled for the proposed Isihlengeni Prospecting Project.
- Available maps and satellite imagery.

Available public documents were reviewed to obtain relevant information on current and planned Project activities, on baseline socio-economic conditions. In order to determine the social impacts, a base profile of the study area was compiled by utilising relevant secondary data sources. Information was largely accessed from interrogation of maps, aerial photographs, technical discussions, existing secondary documents, and a site visit. Appropriate information was extracted from the relevant data sets to present information in terms of the social profile of the area.

7.4.4 Primary

This impact assessment was informed by the primary data collected by Niara during site visits for the following:

- Community members;
- Tribal Authorities

This Report considers stakeholder comments received during the Scoping Phase and will be updated in the EIA Phase (Public Participation Process (PPP)). Information obtained from directly and indirectly affected landowners as part of the EIA for the Project will be considered and reviewed to identify potential bio-physical impacts that might have significant, although indirect, socio-economic implications.

7.4.5 Qualitative Techniques

Qualitative research can be described as an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting (Sogunro, 2001).

Qualitative techniques used during this SIA include:

- Interviews with selected key informants and participants.
- Public meetings to which people are invited to express their opinions about the proposed Isihlengeni prospecting.

7.4.6 Literature Review, Baseline Data Review and Analysis

A literature search was undertaken to obtain secondary data for the baseline description of the socio-economic environment. The information in this report was acquired via statistical data obtained from Statistics South Africa, SIA literature (see References), previous SIA studies conducted in the area and information from reputable sources on the. Additional documents such as planning documents, which substantiate the baseline profile or provide context to the project have been referred to where relevant. This provided a conceptual framework for designing the empirical data collection and interpretation.

The review of existing data assisted the consultant in confirming the social setting and characteristics of the study area, as well as the key economic activities. Data studied included information from the Provincial, District and Local Municipalities' Strategic Planning Documents such as the KwaZulu-Natal Provincial Growth and Development Strategy, and the Integrated Development Plans (IDPs) for uThungulu District Municipality and uMfolozi Local Municipality, in the context of the tertiary zones of influence of the Isihlengeni Prospecting Project.

The secondary data was derived from a number of sources. Socio-economic indicators for the households and populations within the primary and secondary study areas, located within Ward 7 of uMfolozi Local Municipality under the King Cetshwayo District Municipality in the KwaZulu-Natal Province, were obtained from official Statistics South Africa (StatsSA) data sources. These sources included the Census 2022 and Community Survey

2016 statistics, accessed through StatsSA and Wazimap. It is acknowledged that the official statistics cited in the report may not reflect the current socio-economic status of households and populations within the above-mentioned wards.

7.4.7 Compilation of a Socio-Economic Baseline Profile

Information from the public consultation process, including minutes of meetings and the Comments and response Report, received during the EIA phase will also be reviewed and the Report will be updated accordingly. This should provide the social specialist with important information regarding the prevalent concerns, attitudes and perceptions relating to the proposed Project.

On the basis of the information collected through the desktop review, engagement with and information from other specialist studies, a socio-economic baseline profile was compiled for the respective study areas defined in Section 10.

Topics considered as part of this profile include (but are not limited to) the following:

- Demographics, including population size and density as well as population distribution in terms of age and gender;
- Education levels;
- Employment status and income profiles;
- Economic sectors;
- Infrastructure and services (housing, energy, water and sanitation); and
- Community needs and development.

Based on information gathered through the desktop review and limited primary data a baseline profile was compiled and has been categorised as follows:

- Baseline conditions within the regional and secondary study areas
- Economic and livelihood activities
- Labour force and employment
- Household characteristics
- Household access to public services and infrastructure

7.4.8 Social Sensitivity Map

Satellite imagery from Google Earth were used to identify preliminary social sensitive areas, the sensitivity is assessed within 10km radius. These areas were then marked according to their sensitivity, i.e., low, medium or high. It is generally accepted that the social sensitivity of certain activities will decrease the further away these activities are located from the Project site.

8 Impact Assessment Methodology

The impact significance rating process serves two purposes: firstly, it helps to highlight the critical impacts requiring consideration in the management and approval process; secondly, it shows the primary impact characteristics, as defined above, used to evaluate impact significance.

Five factors need to be considered when assessing the significance of community health impacts, namely:

- **Relationship of the impact to temporal scales (duration)**- the temporal scale defines the significance of the impact at various time scales, as an indication of the duration of the impact.
- **Relationship of the impact to spatial scales** - the spatial scale defines the physical extent of the impact.
- **The severity of the impact** - the severity/beneficial scale is used to scientifically evaluate how severe negative impacts would be, or how beneficial positive impacts would be on a particular affected system (for ecological impacts) or a particular affected party.
- The severity of impacts can be evaluated with and without mitigation to demonstrate how serious the impact is when it is not allayed. The word 'mitigation' means not just 'compensation' but includes concepts of containment and remedy. For beneficial impacts, optimisation means anything that can enhance the benefits. However, mitigation or optimisation must be practical, technically feasible and economically viable.
- The likelihood of the impact occurring and the likelihood of impacts taking place as a result of Project actions differs between potential impacts. There is no doubt that some impacts would occur (e.g., loss of vegetation), but other impacts are not as likely to occur (e.g., vehicle accident) and may or may not result from the proposed development. Although some impacts may have a severe effect, the likelihood of them occurring may affect their overall significance.

Each criterion is ranked with scores assigned as presented in the table below to determine the overall significance of an activity. The criterion is then considered in two categories, viz. effect of the activity and the likelihood of the impact. The total scores recorded for the consequence and likelihood are then read off the matrix

presented in Table 8-2, to determine the overall significance of the impact. The overall significance is either negative or positive.

The environmental significance scale is an attempt to evaluate the importance of a particular impact. This evaluation needs to be undertaken in the relevant context, as an impact can either be ecological or social, or both. The evaluation of the significance of an impact relies heavily on the values of the person making the judgment. For this reason, impacts of a social nature in particular need to reflect the values of the affected society.

8.1 Prioritisation of Impacts

The evaluation of the impacts, as described above is used to prioritise which impacts require mitigation measures. Negative impacts that are ranked as being of “**VERY HIGH**” and “**HIGH**” significance will need to be investigated further to determine how the impact can be minimised or what alternative activities or mitigation measures can be implemented. These impacts may also assist decision makers i.e.; numerous HIGH negative impacts may bring about a negative decision.

For impacts identified as having a negative impact of “**MODERATE**” significance, it is standard practice to investigate alternate activities and/or mitigation measures. The most effective and practical mitigations measures will then be proposed.

For impacts ranked as “**LOW**” significance, no investigations or alternatives will be considered. Possible management measures should be investigated to ensure that the impacts remain of low significance.

Table 8-1: Ranking of Evaluation Criteria

Nature of the impact (N)		
Positive	+	Impact will be beneficial to the environment (a benefit).
Negative	-	Impact will not be beneficial to the environment (a cost).
Neutral	0	Where a negative impact is offset by a positive impact, or mitigation measures, to have no overall effect.
Magnitude(M)		
Minor	2	Negligible effects on biophysical or social functions / processes. Includes areas / environmental aspects which have already been altered significantly, and have little to no conservation importance (negligible sensitivity*).

Low	4	Minimal effects on biophysical or social functions / processes. Includes areas / environmental aspects which have been largely modified, and / or have a low conservation importance (low sensitivity*).
Moderate	6	Notable effects on biophysical or social functions / processes. Includes areas / environmental aspects which have already been moderately modified, and have a medium conservation importance (medium sensitivity*).
High	8	Considerable effects on biophysical or social functions / processes. Includes areas / environmental aspects which have been slightly modified and have a high conservation importance (high sensitivity*).
Very high	10	Severe effects on biophysical or social functions / processes. Includes areas / environmental aspects which have not previously been impacted upon and are pristine, thus of very high conservation importance (very high sensitivity*).
Extent (E)		
Site only	1	Effect limited to the site and its immediate surroundings.
Local	2	Effect limited to within 3-5 km of the site.
Regional	3	Activity will have an impact on a regional scale.
National	4	Activity will have an impact on a national scale.
International	5	Activity will have an impact on an international scale.
Duration (D)		
Immediate	1	Effect occurs periodically throughout the life of the activity.
Short term	2	Effect lasts for a period 0 to 5 years.
Medium term	3	Effect continues for a period between 5 and 15 years.
Long term	4	Effect will cease after the operational life of the activity either because of natural process or by human intervention.
Permanent	5	Where mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient.
Probability of occurrence (P)		
Improbable	1	Less than 30% chance of occurrence.

Low	2	Between 30 and 50% chance of occurrence.
Medium	3	Between 50 and 70% chance of occurrence.
High	4	Greater than 70% chance of occurrence.
Definite	5	Will occur, or where applicable has occurred, regardless or in spite of any mitigation measures.

Once the impact criteria have been ranked for each impact, the significance of the impacts will be calculated using the following formula:

Significance Points (SP) = (Magnitude + Duration + Extent) x Probability

The significance of the impact is therefore calculated by multiplying the severity rating with the probability rating. The maximum value that can be reached through this impact evaluation process is 100 SP (points). The significance for each impact is rated as High (SP≥60), Medium (SP = 31-60) and Low (SP<30) significance as shown in the below.

Table 8-2: Description of Environmental Significance Ratings and associated range of scores

Significance of predicted NEGATIVE impacts		
Low	0-30	Where the impact will have a relatively small effect on the environment and will require minimum or no mitigation and as such have a limited influence on the decision
Medium	31-60	Where the impact can have an influence on the environment and should be mitigated and as such could have an influence on the decision unless it is mitigated.
High	61-100	Where the impact will definitely have an influence on the environment and must be mitigated, where possible. This impact will influence the decision regardless of any possible mitigation.
Significance of predicted POSITIVE impacts		
Low	0-30	Where the impact will have a relatively small positive effect on the environment.
Medium	31-60	Where the positive impact will counteract an existing negative impact and result in an overall neutral effect on the environment.

High	61-100	Where the positive impact will improve the environment relative to baseline conditions.
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8.2 Direct versus Indirect and Cumulative Effects

The proposed prospecting activities are anticipated to generate both direct and indirect socio-economic and environmental effects, some of which may evolve into cumulative impacts over time if not adequately managed. Direct effects refer to those that occur as an immediate result of prospecting operations, including restricted access to land, disruption of daily livelihoods (e.g., grazing or subsistence farming), temporary noise and dust emissions from drilling, and the movement of vehicles and personnel within sensitive communal areas. These impacts, while spatially confined to the 9-hectare footprint, may nonetheless be significant for households relying on the affected land for survival or cultural purposes.

Indirect effects are likely to manifest through secondary processes, such as changes in local expectations regarding future land use, altered perceptions of land value, or shifts in community dynamics due to employment or procurement benefits. These effects can shape community attitudes toward development, influence patterns of in-migration, or exacerbate tensions if benefits are perceived to be unfairly distributed.

Over time, the accumulation of these direct and indirect effects, especially when considered alongside other developments or historic land use pressures in the area may result in cumulative impacts. These may include the gradual loss of communal land access, increased social fragmentation, long-term environmental degradation, or heightened dependency on extractive industry opportunities. Understanding these layered dynamics is critical to informing effective mitigation, promoting resilience, and ensuring that local development outcomes are equitable and sustainable.

8.3 Limitations and Assumptions

When conducting a social impact assessment (SIA), it is critical to recognize both the assumptions made and the limitations of the assessment.

Listed below is a breakdown of generalised SIA related assumptions and limitations:

8.3.1 Assumptions

The assumptions made for this SIA include:

- **Causality:** SIAs often assume a causal relationship between the proposed project or intervention and its potential social impacts. This assumption implies that changes observed in social conditions are directly attributable to the project and not solely influenced by other factors.

- **Stakeholder Engagement:** SIAs typically assume active stakeholder engagement throughout the assessment process. This includes assumptions about the willingness of stakeholders to participate, their ability to provide accurate information, and the effectiveness of engagement methods in capturing diverse perspectives.
- **Data Availability:** SIAs rely on the availability of relevant and reliable data to assess social conditions, identify potential impacts, and develop mitigation measures. Assumptions are made about the adequacy and accuracy of existing data sources, including census data, surveys, interviews, and secondary sources.
- **Mitigation Effectiveness:** SIAs may assume that proposed mitigation measures will effectively address identified social impacts and prevent negative consequences. This assumption requires careful consideration of the feasibility, implementation, and monitoring of mitigation strategies.

8.3.2 Limitations

Limitations associated with an SIA include:

- **Data Gaps:** SIAs may encounter limitations due to data gaps, inconsistencies, or inaccuracies in available information. This can affect the reliability and comprehensiveness of the assessment, particularly in areas with limited data availability or poor data quality.
- **Complexity of Social Systems:** Social systems are complex and dynamic, making it challenging to predict and quantify all potential social impacts accurately. SIAs may struggle to capture the full range of interactions, feedback loops, and unintended consequences within social systems.
- **Subjectivity:** SIAs involve subjective judgments and interpretations of social conditions, priorities, and values. Different stakeholders may have conflicting perspectives on the significance of certain impacts or the appropriateness of mitigation measures, leading to uncertainty and disagreement.
- **Temporal Dynamics:** Social impacts may unfold over extended time frames, with effects manifesting differently across various stages of project development and operation. SIAs may overlook long-term or delayed impacts and fail to adequately account for temporal dynamics in social change.
- **Context Sensitivity:** SIAs must be sensitive to the contextual factors that shape social conditions, including cultural norms, historical legacies, institutional frameworks, and power dynamics. Failure to consider these contextual factors can result in incomplete or biased assessments of social impacts.
- **Interdisciplinary Challenges:** SIAs require collaboration across diverse disciplines, including sociology, anthropology, economics, and environmental studies. Interdisciplinary challenges, such as differences in terminology, methodologies, and epistemological frameworks, can complicate the integration of social and environmental considerations.

- **Uncertainty and Risk:** SIAs inherently involve uncertainty and risk, particularly regarding the prediction of future social impacts and the effectiveness of mitigation measures. It's essential to acknowledge and communicate these uncertainties transparently to decision-makers and stakeholders.

Recognising these assumptions and limitations is critical for conducting robust and rigorous social impact assessments that inform decision-making, promote social justice, and mitigate adverse effects on affected communities. Transparency, stakeholder engagement, and ongoing reflection are key to addressing these challenges and improving the quality and effectiveness of SIAs over time.

9 Alternative Assessment

9.1 Details of the development footprint alternatives considered.

9.1.1 Details of the Development Footprint Alternatives Considered

The proposed prospecting activities by Niara Minerals (Pty) Ltd are intended for the exploration of coal, pseudo-coal, and torbanite/oil shale on various farm portions, namely the Remaining Extent of Isihlengeni No. 689; the Remaining Extent of Demoina; Portion 1 of Weltevrede No. 540; Portion 1 of Misty Valley No. 831; and Portions 0, 3, 4, and 6 of Toovernaars Rust No. 518. The application area falls within the Abaqulusi Local Municipality, under the Amajuba District Municipality in the KwaZulu-Natal Province.

No site alternatives were considered for the prospecting right application, as the presence and location of coal-bearing formations are dictated by natural geological conditions. Unlike other development types where multiple site options might be viable, coal exploration is inherently location-specific, and prospecting must be undertaken where the mineral resource is geologically located.

However, within the approved prospecting area, alternative methodologies and operational layouts were considered to minimise environmental impacts. These include:

- Utilising borehole drilling as the primary invasive technique, instead of trenching, to reduce surface disturbance while still allowing for accurate geological sampling and assessment.
- Optimising the placement of boreholes based on the results of desktop studies, geophysical surveys, and field mapping, to avoid ecologically sensitive features such as wetlands, drainage lines, and areas of high biodiversity.
- Minimising total surface disturbance, with borehole pads limited to approximately 500 m² each, and ensuring that the overall project footprint, including access roads and support zones, does not exceed 15 hectares.

- Implementing progressive rehabilitation, including proper sealing of boreholes post-drilling, reapplication of topsoil, and revegetation using indigenous species to support site recovery.

While the specific location of the coal deposit limits the selection of alternative sites, methodological and layout alternatives have been considered and will be refined throughout the project life cycle to ensure environmental responsibility, operational efficiency, and regulatory compliance.

9.1.2 The property on which or location where the activity is proposed to be undertaken;

No alternative properties or locations were considered for the exploration of coal, pseudo-coal, and torbanite/oil shale. The application area spans various farm portions, namely the Remaining Extent of Isihlengeni No. 689; the Remaining Extent of Demoina; Portion 1 of Weltevrede No. 540; Portion 1 of Misty Valley No. 831; and Portions 0, 3, 4, and 6 of Toovernaars Rust No. 518. The proposed prospecting area is located within the Abaqulusi Local Municipality, under the Amajuba District Municipality in the KwaZulu-Natal Province.

Coal and related resources occur in specific geological formations, and therefore prospecting activities must be conducted in locations where these mineral deposits are known or suspected to exist. Unlike other types of developments where multiple site alternatives may be viable, coal prospecting is inherently constrained by geological factors and limited to areas with confirmed or potential coal-bearing strata.

Although no alternative locations were feasible due to the fixed nature of the resource, alternative methodologies within the designated prospecting area have been considered to minimise environmental impact. These include:

- Replacing invasive trenching with borehole drilling to reduce surface disturbance while still enabling subsurface geological investigation;
- Strategically locating boreholes based on environmental sensitivity mapping, desktop assessments, and geophysical survey data to avoid sensitive features such as wetlands, riparian zones, and areas of ecological importance;
- Implementing strict rehabilitation measures, including proper sealing of boreholes, site restoration, and revegetation with indigenous species to support environmental recovery post-prospecting.

These measures ensure that while the location is fixed due to geological constraints, the approach to prospecting remains environmentally responsible and in line with regulatory requirements.

9.1.3 The type of activity to be undertaken;

The proposed activity involves the drilling of approximately 10-15 boreholes to explore for coal, pseudo-coal, and torbanite/oil shale within the approved prospecting area. The specific location of each borehole will be



determined following the completion of desktop geological assessments, field mapping, and geophysical surveys, which will guide optimal placement based on both mineral potential and environmental sensitivity.

At this stage, alternative borehole locations cannot be confirmed, as siting depends on the interpretation of geological data and site-specific environmental considerations. However, flexibility will be maintained during planning to avoid sensitive habitats and ensure minimal environmental disturbance.

In terms of access, two alternatives were considered:

- Constructing new access roads, or
- Utilising existing roads and informal tracks where available.

The preferred option is to use existing roads and tracks to the greatest extent possible, as this significantly reduces the need for vegetation clearance and minimizes the risk of erosion, habitat fragmentation, and other associated environmental impacts. Where new access paths are necessary, they will be kept to a minimum footprint and routed based on an environmental sensitivity assessment.

This approach ensures that while the activity is technically invasive, its implementation is strategically planned to reduce environmental impact and maintain compliance with regulatory and sustainability objectives.

9.1.4 The design or layout of the activity;

As the proposed prospecting activities involve borehole drilling only, with no permanent or complex surface infrastructure, no significant design or layout alternatives were necessary for the core activity area. Boreholes will be dispersed within the designated 15-hectare prospecting footprint, and their exact locations will be finalised based on the results of desktop studies, field mapping, and geophysical surveys.

However, alternatives were considered for the placement of support infrastructure, including the campsite and temporary equipment staging area. Options assessed included:

- A mobile campsite or modular setup that can move with drilling progress;
- An offsite campsite, located away from the immediate project footprint.

These alternatives were evaluated based on environmental sensitivity, proximity to access routes, and operational efficiency. The preferred option will minimise disturbance to sensitive ecological features and align with best environmental management practices.

Given the temporary and low-impact nature of the infrastructure, the layout is designed to be flexible, enabling repositioning if required due to environmental or logistical considerations. The final layout will be confirmed during detailed planning and subject to environmental and landowner constraints.

9.1.5 The technology to be used in the activity

The prospecting activities proposed in the Prospecting Works Programme will follow a phased approach, where each phase is informed by the results of the preceding phase. As such, no alternative technologies were identified at this stage; instead, a reliable sequence of standard and trusted prospecting techniques will be employed.

The primary invasive technique will involve the use of rotary core drilling rigs, which are widely accepted in the mining industry for their ability to produce high-quality subsurface geological samples. This technology allows for the accurate assessment of coal seams, pseudo-coal, and torbanite/oil shale with minimal surface disturbance.

Support technologies may include:

- Geophysical survey equipment (e.g., resistivity or seismic tools) to refine borehole placement;
- Mobile water storage and recycling systems for managing drilling fluid;
- Lined containment pits or tanks for temporary storage of drill cuttings and water;
- Low-impact access equipment to reduce the need for extensive road construction.

All equipment and technologies will be selected based on their efficiency, environmental performance, and compliance with DMRE and NEMA regulations.

This approach ensures that prospecting is conducted using technically appropriate and environmentally responsible methods suited to the geological context of the site.

9.1.6 The operational aspects of the activity; and

The operational aspects of the proposed prospecting activities will follow a phased exploration programme focused on the drilling of approximately 10-15 boreholes to investigate the presence and quality of coal, pseudo-coal, and torbanite/oil shale. Activities will be designed and implemented in a manner that minimises environmental disturbance while ensuring compliance with all regulatory requirements.

9.1.6.1 Site Establishment

- Vegetation clearing will be limited to the minimum area required for safe and efficient drilling operations.
- A bulldozer or similar light earth-moving equipment will be used to clear designated borehole sites and establish temporary infrastructure such as laydown areas and equipment storage zones.
- Each borehole pad will occupy an area of approximately 25 m × 20 m (500 m²), with up to 10-15 boreholes distributed across the prospecting area.
- Temporary facilities may include:
 - Mobile water tanks
 - Portable sanitation units
 - A temporary site office or shelter for personnel and equipment

9.1.6.2 Access Roads

- Existing roads and farm tracks will be utilised as far as possible to limit surface disturbance.
- Where new access routes are unavoidable, they will be designed based on an environmental sensitivity assessment, avoiding wetlands, drainage lines, and sensitive habitats.
- All new access paths will be constructed using best environmental practices, including proper drainage, erosion control, and minimal compaction.

9.1.6.3 Drilling operation

- The core operational activity is rotary core drilling for subsurface sampling.
- Approximately 10-15 boreholes, each reaching depths of up to 120 meters, will be drilled to assess the quality, thickness, and extent of coal-bearing strata.
- Borehole placement will be guided by the results of desktop studies, geophysical surveys, and field mapping.
- Drilling will be conducted using mobile drilling rigs, supported by light trucks and water bowsers.
- Casing and grouting will be applied where aquifers or unstable zones are encountered to prevent groundwater contamination and ensure borehole integrity.
- Water use will be managed carefully, with water supplied by mobile tanks or licensed sources. All drilling wastewater and cuttings will be contained in lined pits or tanks and managed according to the National Environmental Management: Waste Act, 2008.

9.1.6.4 Processing operations

- No on-site processing operations (e.g., crushing, screening, washing, or beneficiation) will take place as part of this prospecting project.
- Coal and associated material recovered from drilling will be collected and transported to an off-site laboratory for analysis to determine the quality and characteristics of the deposit.
- The focus of the project is exploratory in nature, assessing the presence, depth, and quality of the target resources.
- Once drilling is complete, all boreholes will be sealed or decommissioned, and sites will be rehabilitated through reshaping, topsoil reapplication, and re-vegetation with indigenous species.

All operational activities will be implemented in compliance with the MPRDA, NEMA, and other applicable environmental legislation.

9.1.7 The option of not implementing the activity.

The option of not implementing the proposed exploration of coal, pseudo-coal, and torbanite/oil shale on the various farm portions, namely the Remaining Extent of Isihlengeni No. 689; the Remaining Extent of Demoina; Portion 1 of Weltevrede No. 540; Portion 1 of Misty Valley No. 831; and Portions 0, 3, 4, and 6 of Toovernaars Rust No. 518, located within the Abaqulusi Local Municipality under the Amajuba District Municipality in the KwaZulu-Natal Province, would result in no physical disturbance to the environment. Existing land uses (such as agriculture or conservation) would remain unchanged, and potential short-term environmental impacts associated with prospecting, such as soil disturbance, vegetation clearance, and localised groundwater interaction, would be entirely avoided.

However, not proceeding with the activity would also mean that the coal and associated resources in the area would remain unassessed, and the opportunity to determine the economic viability of a potential mining operation would be lost. This could have broader implications for:

- Local and regional economic development
- Employment and income generation
- Contributions to South Africa's energy mix and resource security

Importantly, the revised prospecting method, borehole drilling rather than trenching, significantly reduces environmental disturbance, with boreholes occupying small footprints (~500 m² each) and rehabilitation conducted immediately after completion. Environmental controls, site selection protocols, and progressive rehabilitation further ensure that the prospecting process is conducted in a responsible and compliant manner.

Therefore, while the “no-go” option avoids all environmental impact in the short term, it also prevents the realisation of potential long-term socio-economic benefits linked to sustainable mineral resource development. The carefully planned and environmentally managed prospecting activity presents a balanced approach to resource exploration with reduced environmental risk.

10 Socio-Economic Baseline: Province and District Municipality

10.1 KwaZulu-Natal Province

KwaZulu-Natal is situated in the south-eastern part of South Africa, sharing its eastern boundary with the Indian Ocean. The province also borders the Eastern Cape, Free State, and Mpumalanga provinces, as well as the independent countries of Lesotho, Eswatini (Swaziland), and Mozambique. Often referred to as the “Garden Province,” KwaZulu-Natal features a diverse landscape, ranging from lush subtropical coastline in the east to savanna grasslands and the imposing Drakensberg Mountain Range in the west.

With a land area of approximately 94,361 km², KwaZulu-Natal is the third-smallest province in South Africa by size. However, it is the second most populous, with an estimated population of 11.07 million people. The provincial capital is Pietermaritzburg, while Durban serves as the largest city and a major economic hub. Other significant urban centres include Richards Bay, Port Shepstone, Newcastle, Estcourt, Ladysmith, and Richmond.

Economically, KwaZulu-Natal is a vital contributor to South Africa's GDP, particularly through its manufacturing sector which is the largest in the country by contribution. The city of Richards Bay plays a central role in the province's industrial profile, serving as the base of South Africa's aluminium industry and home to the Richards Bay Coal Terminal, which supports the country's global position as one of the largest exporters of steam coal.

Agriculture also remains a cornerstone of the provincial economy. The coastal belt is dominated by extensive sugar cane plantations, which are the mainstay of the sector. This region also produces subtropical fruits, while inland areas focus on vegetable cultivation, dairy farming, and livestock production. Forestry contributes significantly to the rural economy, with plantations concentrated around Vryheid, Eshowe, Richmond, Harding, and Ngome.

Administratively, KwaZulu-Natal is divided into one metropolitan municipality, eThekweni and ten district municipalities. These are further subdivided into 43 local municipalities, reflecting a complex governance structure intended to facilitate local development and service delivery. These are illustrated in the Figure below.

infrastructure investment—particularly in sanitation, energy, and economic zones such as Dube TradePort and Richards Bay—positioning KZN as a region of both challenge and opportunity within South Africa’s development landscape.

Demographic Overview of KwaZulu-Natal

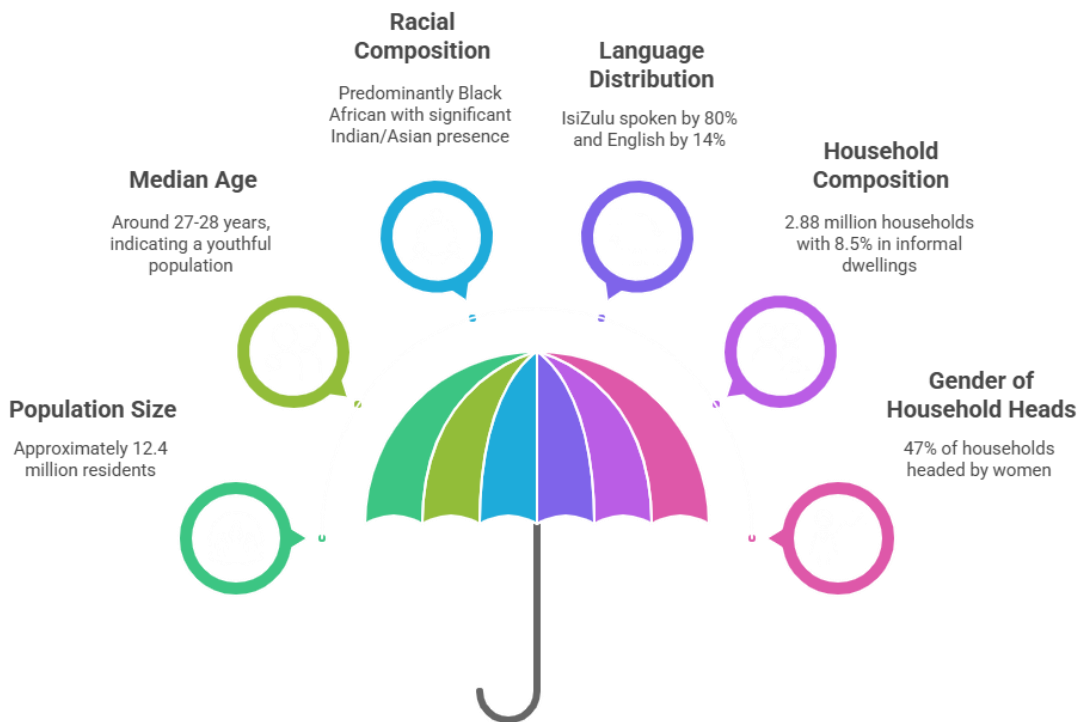


Figure 10-2: Demographic Overview of KwaZulu-Natal

KwaZulu-Natal Province Key Statistics

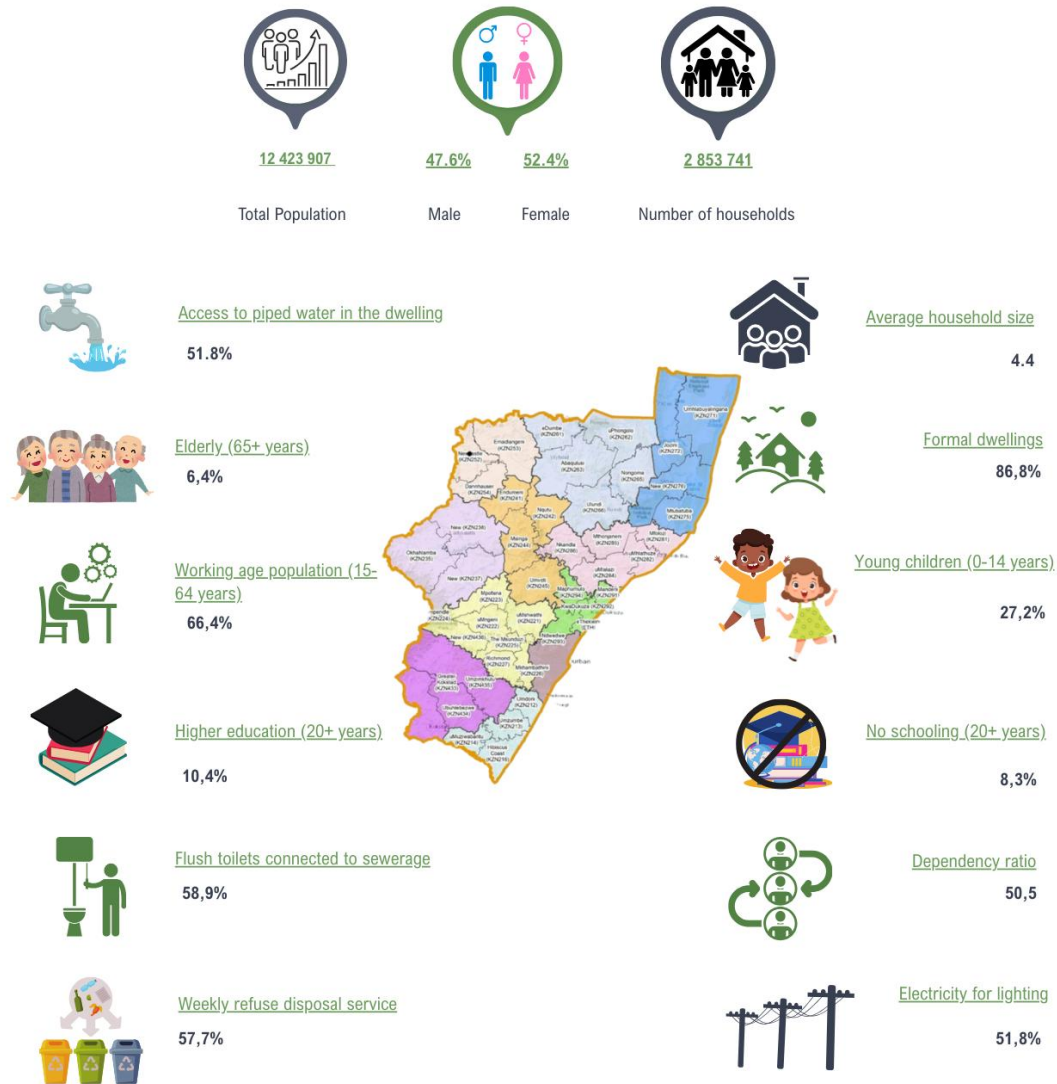


Figure 10-3:KwaZulu-Natal Statistics

10.1.2 Human Development & Poverty

KwaZulu-Natal records a Human Development Index (HDI) of approximately 0.714, positioning it fifth among South Africa’s nine provinces and categorising it within the “high human development” bracket (BPESA, 2023; Wikipedia, 2023). The HDI considers indicators such as life expectancy, educational attainment, and per capita income, and KZN's relatively high score reflects improvements in access to education, healthcare, and basic

services in urban and peri-urban areas. However, significant disparities remain between urban centres such as Durban and Pietermaritzburg and rural municipalities, where development lags behind.

Poverty levels in KwaZulu-Natal remain a concern, particularly in rural districts. According to data from the Global Data Lab's International Wealth Index (IWI), approximately 46% of households in the province fall below the international poverty threshold (IWI score < 70), with an estimated 9% considered among the poorest (IWI score < 35) (Global Data Lab, 2024). These figures highlight persistent socio-economic inequalities and underscore the vulnerability of large segments of the provincial population to economic shocks, food insecurity, and limited livelihood opportunities.

While poverty reduction strategies have been implemented at the provincial level, including expanded access to social grants, healthcare, and basic infrastructure, many rural communities continue to experience high dependency ratios, unemployment, and limited access to economic opportunities. This context presents both a developmental challenge and an opportunity to ensure that future projects and investments are geared toward inclusive growth that addresses existing spatial and social inequalities.

10.1.3 Education & Skills

KwaZulu-Natal has made notable progress in improving educational outcomes and skills development over the past decade. As of the most recent data, approximately 74% of individuals aged 5 to 24 years are enrolled in educational institutions, reflecting expanded access to basic and secondary education across the province (Edge. Durban, 2024). The proportion of adults aged 20 years and older with no formal education has declined significantly, from 10.7% in 2011 to 8.3% in 2022, suggesting improved reach of foundational education in both rural and urban areas (Edge. Durban, 2024).

Higher education enrolment has also shown moderate growth, increasing from 9% in 2011 to approximately 10.4% in 2022, indicating a gradual shift toward tertiary-level qualifications among the working-age population (Edge. Durban, 2024). While this trend is promising, disparities in access remain evident, particularly in remote areas where limited infrastructure and socio-economic challenges continue to restrict post-secondary opportunities.

In terms of academic attainment, an estimated 45.9% of adults in KwaZulu-Natal have completed Matric (Grade 12) or higher, while approximately 72.4% have reached Grade 9 or above (Wikipedia, 2023; Wazimap, 2023; Global Data Lab, 2024). These figures reflect broad-based educational participation but also highlight the need for continued investment in post-school education and vocational training to equip the provincial workforce with skills aligned to regional development priorities.

10.1.4 Health & Social Indicators

KwaZulu-Natal continues to face substantial public health challenges, with the burden of communicable diseases, child health concerns, and socio-economic vulnerabilities disproportionately affecting rural and peri-urban populations. The province has one of the highest HIV prevalence rates in South Africa, with an overall prevalence of approximately 16%. Among adults aged 25 to 49 years, prevalence increases significantly to around 31%, with a particularly alarming rate of 38% among women in this age group (Gezubuso Projects, 2024; BPESA, 2023; Reddit, 2023). These figures reflect the entrenched nature of the HIV/AIDS epidemic in KwaZulu-Natal and underscore the ongoing need for integrated health interventions, treatment programmes, and sexual health education.

Child health indicators also reflect deep-seated developmental concerns. The province records an estimated infant mortality rate of 40 deaths per 1,000 live births, with under-five mortality rates around 44 per 1,000, figures that remain above the national average (Global Data Lab, 2024). Additionally, 30.6% of children in KwaZulu-Natal are reported to be stunted, indicating chronic malnutrition and long-term socio-economic disadvantage (Global Data Lab, 2024). These challenges are compounded by inadequate access to healthcare in remote communities, insufficient sanitation, and food insecurity.

KwaZulu-Natal's health system, while extensive, faces strain due to high service demand, understaffed facilities in rural areas, and persistent socio-economic inequality. Addressing the province's complex health and social landscape will require a multi-sectoral approach, combining healthcare delivery with improvements in education, nutrition, and income support.

10.1.5 Employment & Unemployment

KwaZulu-Natal continues to experience high levels of unemployment, with significant implications for social stability, poverty, and long-term development. As of the third quarter of 2023, the provincial unemployment rate stood at approximately 30.6%, reflecting a stagnant labour market and limited job creation relative to population growth (Government of South Africa, 2023). Youth unemployment affecting individuals aged 15 to 34, remains particularly severe, with estimates ranging between 50% and 60%, underscoring the vulnerability of young people to prolonged joblessness and economic exclusion (Gezubuso Projects, 2023; Operation Hunger, 2023).

The structure of employment in the province is divided between formal and informal sectors. Approximately 51% of working individuals are employed in the formal economy, while around 25% are engaged in informal sector activities such as street trading, small-scale agriculture, and casual labour (Government of South Africa, 2023). The remaining portion is comprised of domestic work, subsistence livelihoods, or are unclassified due to the nature of rural economies.

KwaZulu-Natal's workforce is notably youthful, with individuals aged 18 to 35 comprising roughly 31% of the provincial population, equating to an estimated 3.5 million people (BPESA, 2023). This demographic profile presents both a challenge and an opportunity: while a large youth population contributes to the current unemployment crisis, it also offers potential for economic growth if effectively integrated through targeted skills development, entrepreneurship support, and employment creation programmes.

Persistent labour market inequality, particularly in rural areas such as Zululand, calls for localised interventions that address both access to opportunity and barriers to participation, especially among women, youth, and persons with limited education or vocational training.

10.1.6 Economic & Industrial Overview

KwaZulu-Natal is a significant contributor to the South African economy, accounting for approximately 16% of the national Gross Domestic Product (GDP). In 2022, the province's GDP was estimated at R1,055 billion (approximately US\$64.7 billion), resulting in a GDP per capita of roughly US\$5,210 (Wikipedia, 2023; SouthAfricanBusiness.co.za, 2024). These figures highlight the province's role as an economic powerhouse, with diverse industrial and commercial activities underpinning its economic landscape.

The province's economic structure is characterised by several key sectors. Manufacturing constitutes the largest share, contributing approximately 15.8% of provincial GDP, closely followed by government services at 15.3%. Agriculture remains an important sector, accounting for about 5.4%, while construction contributes 3.3% (Operation Hunger, 2023). This diversified sectoral profile demonstrates the province's balanced economy, with both primary and secondary industries playing vital roles.

KZN hosts major industrial operations including auto manufacturing, with companies such as Toyota and Bell Equipment operating significant production facilities within the province. The timber and pulp sector is represented by large enterprises like Mondi and Sappi, which contribute to the forestry-based economy. Additionally, agro-processing industries add value to agricultural products, supporting rural employment and economic development

The province is also witnessing growing investments in renewable energy, particularly in special economic zones such as Richards Bay and the King Shaka International Airport SEZ. These initiatives aim to diversify the energy mix, attract green technology investments, and create sustainable job opportunities (SouthAfricanBusiness.co.za, 2024).

KwaZulu-Natal's strategic geographic location, combined with its industrial base and ongoing infrastructure development, positions the province as a critical hub for both national and regional economic growth.

10.1.7 Infrastructure & Investment Trends

KwaZulu-Natal continues to attract substantial capital investment in critical infrastructure sectors, reflecting the province's role as a national economic hub and gateway to regional trade. In the second quarter of the 2023/24 financial year, Durban recorded a notable increase in public capital expenditure across several sectors. Sanitation infrastructure led with a 47.6% rise in capital expenditure, followed by health and social services at 26.9%, and engineering-related infrastructure (including roads, water, and electricity) at 19.8% (Edge.Durban, 2024). These investments not only enhance service delivery but also create enabling conditions for private sector growth and job creation.

KwaZulu-Natal's Special Economic Zones have emerged as key focal points for industrial expansion and foreign direct investment. The province has attracted approximately R22 billion in SEZ-linked investment, anchored by major strategic initiatives such as the Dube TradePort near King Shaka International Airport and the Richards Bay Industrial Development Zone (IDZ). These SEZs offer targeted incentives, world-class logistics platforms, and sector-specific infrastructure, positioning KwaZulu-Natal as a competitive destination for manufacturing, agro-processing, and logistics (SouthAfricanBusiness.co.za, 2024).

In addition to SEZ-driven growth, urban expansion initiatives such as the Westtown development in Shongweni reflect a shift toward integrated urban planning and the development of new economic corridors. These large-scale projects are designed to stimulate mixed-use development, commercial activity, and spatial transformation in historically underdeveloped areas (Wikipedia, 2023; SouthAfricanBusiness.co.za, 2024).

These infrastructure and investment trends signal sustained provincial momentum toward inclusive economic growth, spatial equity, and long-term sustainability, particularly when aligned with national development priorities and local government support.

10.1.8 Basic Services & Living Conditions

Decade of Progress in Household Services

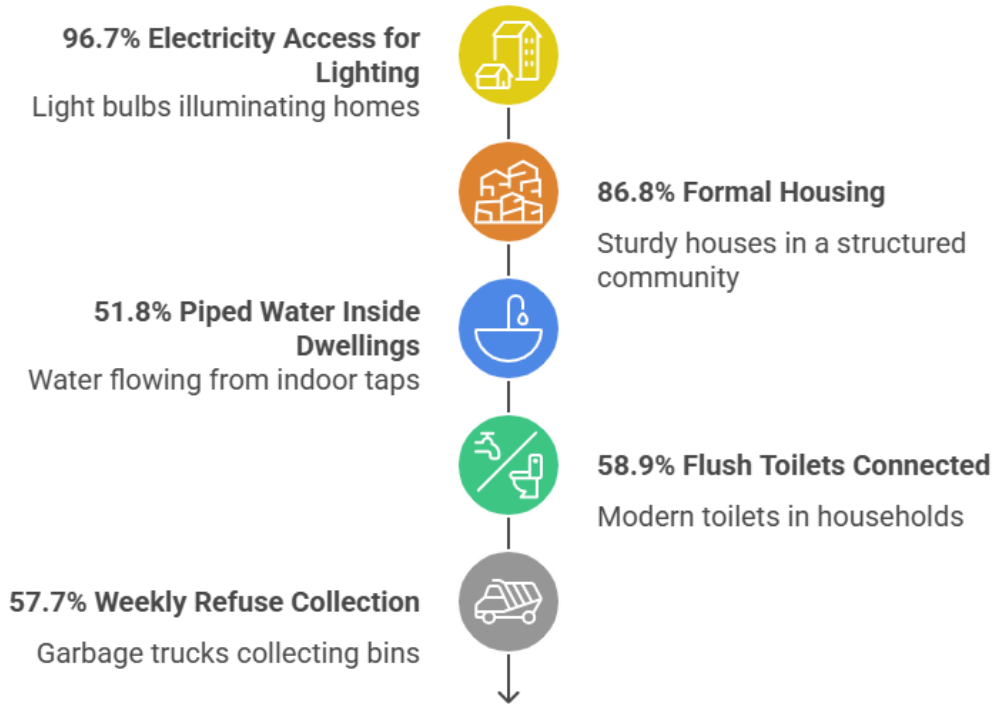


Figure 10-4: KwaZulu-Natal Province Improvements Seen Over a Decade

10.1.9 Social Challenges & Crime

KwaZulu-Natal continues to grapple with persistent social challenges, many of which are rooted in structural inequality, historical spatial injustices, and service delivery backlogs. High levels of poverty, unemployment, and youth marginalisation have contributed to growing socio-political tensions in both urban and rural areas, often manifesting in protests, community unrest, and elevated crime rates.

Recent crime statistics indicate a concerning prevalence of violent crime in the province. In the final quarter of 2024, KwaZulu-Natal recorded approximately 13,173 arrests related to contact crimes, including assault, attempted murder, and gender-based violence. Within the same period, 1,428 murder cases were reported, with several incidents involving multiple homicides, reflecting the gravity of the province’s public safety crisis (IOL, 2024). These figures not only strain law enforcement capacity but also have significant psychosocial and economic consequences for affected communities.

Underlying these high crime levels are a range of contributing factors, including inadequate access to basic services such as water, housing, and road infrastructure. In addition, labour unrest and instability within the education sector, particularly in higher education institutions, have amplified frustration among students and youth, who face rising costs, limited financial aid, and constrained post-graduation opportunities (IOL, 2024).

Addressing these challenges requires a holistic approach that links safety and crime prevention with improved service delivery, equitable development, education reform, and job creation particularly in under-served rural and peri-urban areas.

Table 10-1: KZN Statistics

Theme	KZN Snapshot (Latest)
Population	~12.4 million; median age 27–28
Poverty / HDI	HDI: 0.714; ~46% poor households
Education	~74% enrolled, 45.9% Matric+
Health	HIV prevalence ~16%; stunting 30%
Unemployment	Overall ~31%; youth ~50–60%
GDP Contribution	~16% of national GDP; GDP per capita US \$5,210
Economic Sectors	Manufacturing, agro-processing, energy, exports
Basic Services	Electricity ~96.7%; Water piped ~51.8%; refuse ~57.7%
Crime / Social	High violent crime linked to structural issues

10.2 Zululand District Municipality

The Zululand District Municipality is one of the ten district municipalities within KwaZulu-Natal and is situated in the north-eastern part of the province. It covers an area of approximately 15,307 km² and comprises five local municipalities: Abaqulusi, eDumbe, uPhongolo, Nongoma, and Ulundi. The district is predominantly rural in character, with scattered settlements and a high reliance on communal land governed under traditional leadership structures.

The district’s administrative seat is Ulundi, which also holds historical significance as a former capital of the Zulu Kingdom. Other key towns include Vryheid (in the Abaqulusi Local Municipality), Nongoma, and Pongola. The region is characterised by its rich cultural heritage, scenic landscapes, and a population estimated at just over 900,000 people.

Economically, Zululand faces several developmental challenges, including high levels of poverty, unemployment, and limited access to infrastructure and basic services. The economy is largely driven by agriculture, forestry, tourism, and limited mining activities. Livestock farming and subsistence agriculture dominate the rural

economy, while commercial agriculture, particularly sugarcane and timber production, exists in more developed areas.

The district is also endowed with mineral resources, including coal, which has attracted interest for prospecting and mining. However, economic growth is constrained by factors such as poor road infrastructure, limited investment, and fragmented land ownership patterns. Despite these challenges, Zululand holds significant potential for rural development, particularly through the responsible use of its natural resources, heritage tourism, and targeted infrastructure expansion.

Socially, the district contends with high levels of youth unemployment, low literacy rates in remote areas, and a dependency on social grants. Service delivery remains uneven across the district, with some areas experiencing challenges in water access, sanitation, and healthcare provision. Local government, in collaboration with traditional authorities and provincial stakeholders, plays a critical role in addressing these socio-economic disparities through integrated development planning.

Zululand District Key Statistics

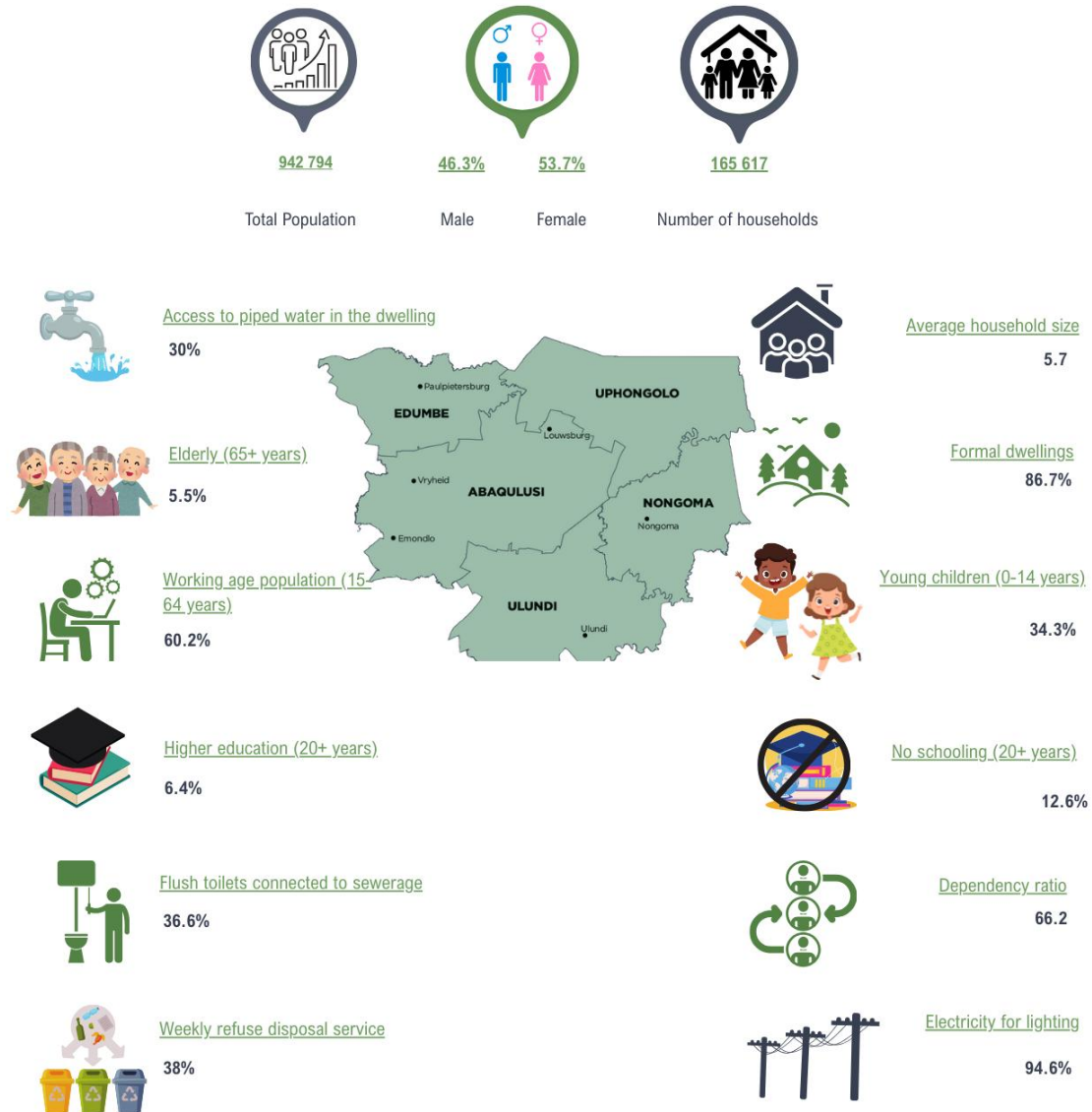


Figure 10-5: Zululand District Statistics



Figure 10-6: Plan illustrating Zululand DM (and its Local Municipalities)

10.3 Abaqulusi Local Municipality

Abaqulusi Local Municipality is one of five local municipalities that form part of the Zululand District Municipality in the north-eastern region of KwaZulu-Natal. The municipal area spans approximately 4,070 km² and includes the key urban centre of Vryheid, along with smaller settlements such as Hlobane, Louwsburg, Ngome, and Coronation. The municipality lies at the intersection of the R34 and R69 regional routes and serves as a strategic service and economic node within the largely rural Zululand District.

With an estimated population of over 211,000 people (Stats SA, 2022), Abaqulusi reflects a predominantly rural demographic, with many households residing in traditional dwellings on communal land governed under the Ingonyama Trust. The spatial distribution of settlements is widely dispersed, making access to basic services and economic opportunities a significant challenge. A large portion of the population is concentrated in outlying areas, placing pressure on the municipality to deliver infrastructure and services across difficult terrain and low-density settlements.

Economically, Abaqulusi's activity is anchored in agriculture, public sector employment, and small-scale trade. Commercial farming is active in areas surrounding Vryheid, particularly in cattle farming, maize, and timber production. Former coal mining activities in Hlobane and surrounding areas have left a legacy of underutilised industrial land and socio-economic vulnerability following mine closures. The municipality currently lacks significant formal industrial development, but small-scale businesses, spaza shops, and informal trading form the backbone of household income generation, especially in peri-urban and rural areas.

The municipality faces pronounced socio-economic challenges. Unemployment is high, particularly among youth and unskilled adults. According to the Zululand District IDP (2022), youth aged 18–35 represent a significant portion of the population, but formal employment opportunities remain scarce, contributing to high levels of out-migration and dependency on social grants. Education attainment levels are generally low outside urban areas, with limited access to post-secondary institutions. Health services are stretched across widely scattered clinics and community health centres, and access to healthcare is further complicated by poor road infrastructure and transport limitations.

Infrastructure backlogs remain a key constraint to development. Many rural households still lack access to piped water, formal sanitation, and electrification. In some areas, residents rely on streams, boreholes, or rainwater harvesting for household water, while access to safe sanitation is limited to pit latrines. Road conditions, particularly gravel roads connecting remote settlements are poor, especially during the rainy season, which hampers access to services and markets.

Despite these challenges, Abaqulusi has notable development potential. Its location at the intersection of key transport corridors offers opportunities for agro-processing, logistics, and tourism development, particularly if infrastructure investment and economic diversification are prioritised. Furthermore, strong traditional leadership structures and cultural heritage assets, including sites associated with Zulu history, position the area as a potential cultural tourism destination. Local development strategies increasingly emphasise small enterprise development, rural agriculture, and youth empowerment as pathways to inclusive growth.

The municipal administration has committed to addressing service delivery gaps and promoting local economic development through its Integrated Development Plan (IDP), although implementation is often constrained by financial, institutional, and capacity limitations. Strategic partnerships with provincial and national departments, private investors, and traditional councils will be essential to unlock the area's socio-economic potential while ensuring inclusive, community-led development.

AbaQulusi Local Municipality Key Statistics

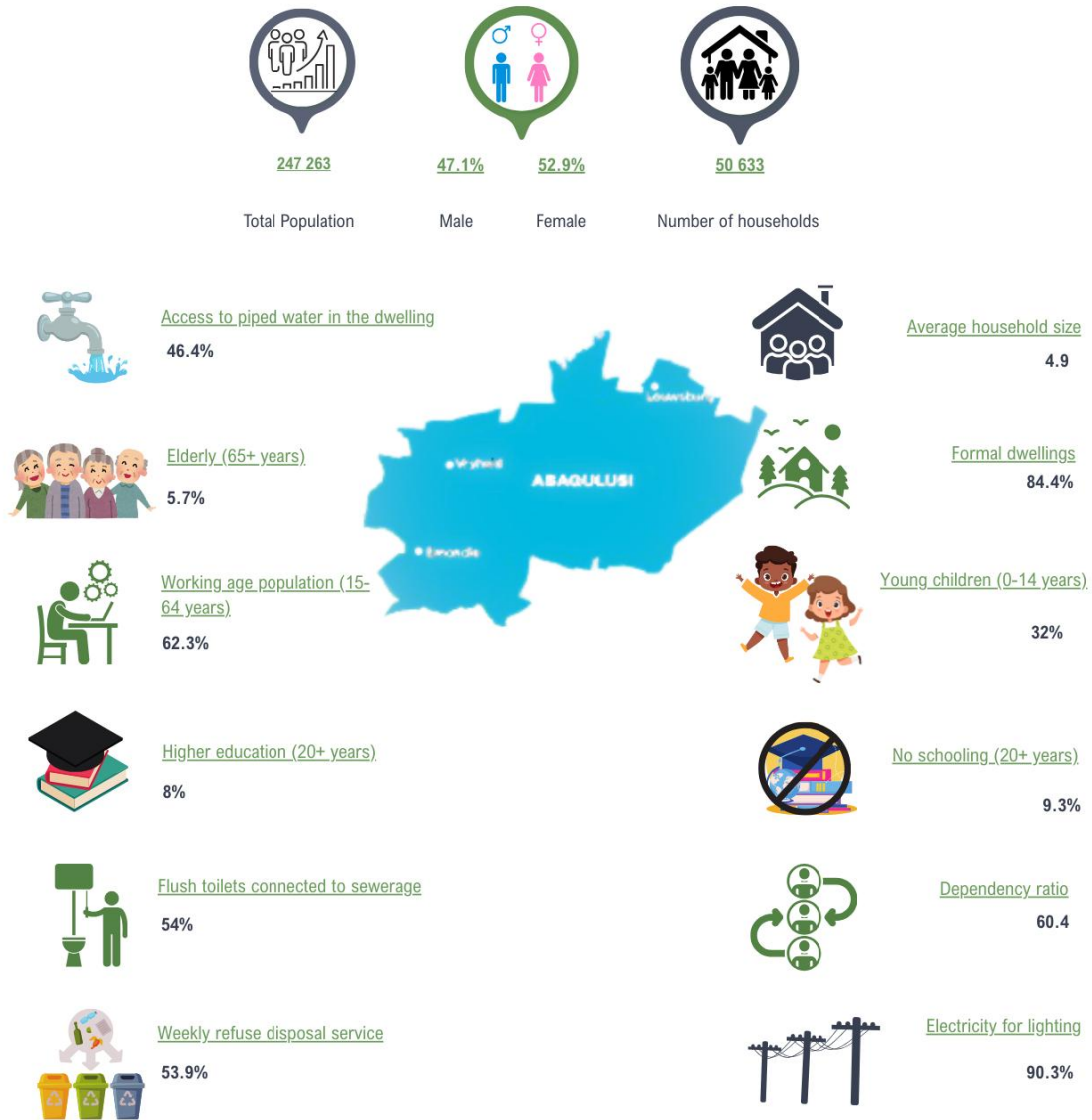


Figure 10-7: Abaqulusi Local Municipality Statistics

11 Socio-Economic Baseline: Primary Zone

The Primary Zone refers to the immediate vicinity or directly affected areas surrounding the proposed project site. It is described as the area likely to experience social impacts associated with the physical intrusion by Project infrastructure and Project-related activities.

11.1 Zone of Influence

The Zone of Influence (ZOI) refers to the geographical area or community population directly affected by a proposed project, development, or activity. When conducting a social impact assessment, it is essential to delineate the ZOI to understand the scope and magnitude of potential social impacts and ensure that affected communities are adequately identified and engaged.

The ZOI is defined based on the geographic footprint of the project and the extent of its potential social impacts. This may include areas where physical changes occur, such as construction sites, operational facilities, transportation routes, and associated infrastructure. Within the ZOI, stakeholders who may be directly or indirectly affected by the project are identified. These stakeholders can include local communities, indigenous peoples, workers, businesses, NGOs, government agencies, and other relevant groups.

Data collection within the ZOI is conducted to establish baseline conditions and assess existing social, economic, cultural, and environmental characteristics. This includes demographic profiles, livelihoods, land use patterns, infrastructure, access to services, cultural heritage, and community cohesion. Stakeholders within the ZOI were actively engaged throughout the SIA process to ensure their perspectives, concerns, and preferences are incorporated into the assessment. This involved community meetings, interviews and consultations. Based on the assessment findings, mitigation measures and enhancement opportunities are developed to address identified social impacts and enhance positive outcomes within the ZOI. This includes measures to minimize negative impacts, such as resettlement and compensation, as well as initiatives to enhance community development, capacity-building, and livelihood diversification.

The following criteria was applied to determine preliminary (desktop based) social sensitive receptors:

Table 11-1: Sensitivity Description

Sensitivity	Description
High	<p>Any of the following socio-economic activities within a 2 km radius from the Project area:</p> <ul style="list-style-type: none"> • Any form of human settlement, such as formal housing, informal housing, scattered houses, small villages, grouped houses, etc.; • Heavy industrial and/or commercial with high economic value in terms of employment; and • Areas with high agricultural potential. <p>It is expected that there would be a marginal to no buffer between these activities and the Project.</p>

Sensitivity	Description
Medium	<p>Any of the following socio-economic activities within a 5 km radius from the Project area:</p> <ul style="list-style-type: none"> • Any form of human settlement, such as formal housing, informal housing, scattered houses, small villages, grouped houses, etc.; • Heavy industrial and/or commercial with high economic value in terms of employment; and • Areas with high agricultural potential. <p>It is expected that most activities within the 5 km radius would be buffered somewhat by activities taking place within the 2 km radius.</p>
Low	<p>Any of the following socio-economic activities within a 10 km radius from the Project area:</p> <ul style="list-style-type: none"> • “Greenfields” areas (areas not currently occupied by any infrastructure); • Any form of human settlement, such as formal housing, informal housing, scattered houses, small villages, grouped houses, etc.; • Heavy industrial and/or commercial with high economic value in terms of employment; and • Areas with low agricultural potential. <p>It is expected that these activities would be buffered by activities taking place in both the 5 km and 2 km radius.</p>

The ZOI refers to the geographic area and population that may experience social, economic, cultural, or environmental changes, either directly or indirectly, as a result of Niara Minerals (Pty) Ltd’s proposed prospecting activities within the Abaqulusi Local Municipality, KwaZulu-Natal. Delineating the ZOI is essential for understanding the spatial extent of the project's impacts, identifying socio-environmental sensitivities, and ensuring that all potentially affected communities are meaningfully engaged throughout the SIA process.

These zones were determined using GIS spatial analysis overlaid on high-resolution satellite imagery and verified through desktop research and stakeholder consultations. The criteria applied considered settlement density, economic activity, proximity to cultural and educational institutions, and land use.

11.1.1 High Sensitivity Zone (0-2 km)

The High Sensitivity Zone is the immediate area surrounding the prospecting footprint and includes multiple settlements, educational facilities, and grazing areas. This zone is expected to experience the most direct impacts, such as access disruption, increased vehicle movement, dust, and noise.

Key communities and receptors in this zone include:

- Isihlengeni (Sihlengeni): A rural settlement with a cluster of homesteads, communal agricultural lands, and social infrastructure including Sihlengeni Combined School.
- Steirland and Ngentesheni: Densely populated nodes falling directly within or adjacent to the project boundary. These settlements are characterised by a high dependency on subsistence farming and customary land tenure.
- Mpendleni Primary School, Simingeni Combined School, and Cibillini Primary School: These schools lie in close proximity and may be affected by dust, traffic, and noise if mitigation is not effectively implemented.
- Magdalena Game Ranch and portions of Khambi Tribal Authority land also fall within this zone.

Given the close proximity of households, communal resources, and culturally significant sites, this zone demands particular attention in terms of participatory engagement, safety measures, and transparent communication regarding the scope and limits of the project.

11.2 Medium Sensitivity Zone (2–5 km)

The Medium Sensitivity Zone includes settlements and infrastructure that, while not in direct contact with prospecting operations, may still be affected by cumulative or secondary impacts.

Key communities and institutions include:

- Bandlabathwa and Mogholoz Primary School
- Kholwani Temple and Khambi Traditional Authority offices
- Zwathi Clinic, Zwathi Store, and Zwathi Educare Centre
- Sections of Modemoselle Game Farm and surrounding grazing lands

These areas could experience indirect impacts such as altered access to services, community expectations regarding job opportunities, and potential noise or air quality issues depending on prevailing winds and road usage.

11.3 Low Sensitivity Zone (5–10 km)

The Low Sensitivity Zone comprises rural settlements, dispersed homesteads, and greenfield areas where impacts are expected to be minimal but still within the outer boundary of influence. Stakeholder expectations and socio-political interests still warrant engagement within this broader area.

Notable receptors include:

- Ezingolweni/ Ezidulweni: A growing peri-urban node with health services (Thulasizwe Hospital) and commercial activity (Skwebezi Store, Sansie's Mango Chutney Store);
- Syaphambili Primary School, Indiyanamandla Primary School, and other schools serving surrounding communities; and
- Mayime, Roma, and Coronation, which though buffered, may still be part of regional stakeholder forums or express concerns through tribal and municipal governance structures.

11.4 Socio-Economic Fabric Across the ZOI

The communities within the ZOI fall within the Abaqulusi Local Municipality (Zululand District), characterised by rural poverty, youth unemployment, limited service delivery, and traditional governance systems. The population is predominantly isiZulu-speaking and adheres to communal land-use practices overseen by traditional authorities. Access to piped water, formal housing, and sanitation remains limited, especially in the outer zones.

Livelihoods are primarily sustained through:

- Subsistence agriculture (maize, beans, livestock);
- Social grants (child support, pensions);
- Temporary or seasonal employment (often migrant-based); and
- Small-scale informal trade (spaza shops, produce stalls).

Education and healthcare services are generally under-resourced. Infrastructure such as roads, clinics, and schools is present but varies in quality. The region is also characterised by a strong cultural identity and spiritual connection to the land, with ancestral graves, sacred sites, and traditional ceremonies playing an important role in community life.

Understanding the ZOI in this structured, spatially defined manner allows the SIA to:

- Identify sensitive social receptors likely to be impacted by the project;
- Tailor mitigation and communication strategies to each sensitivity zone;
- Prioritise high-risk communities for deeper engagement and monitoring; and
- Build a holistic understanding of the socio-cultural landscape within which the project operates.

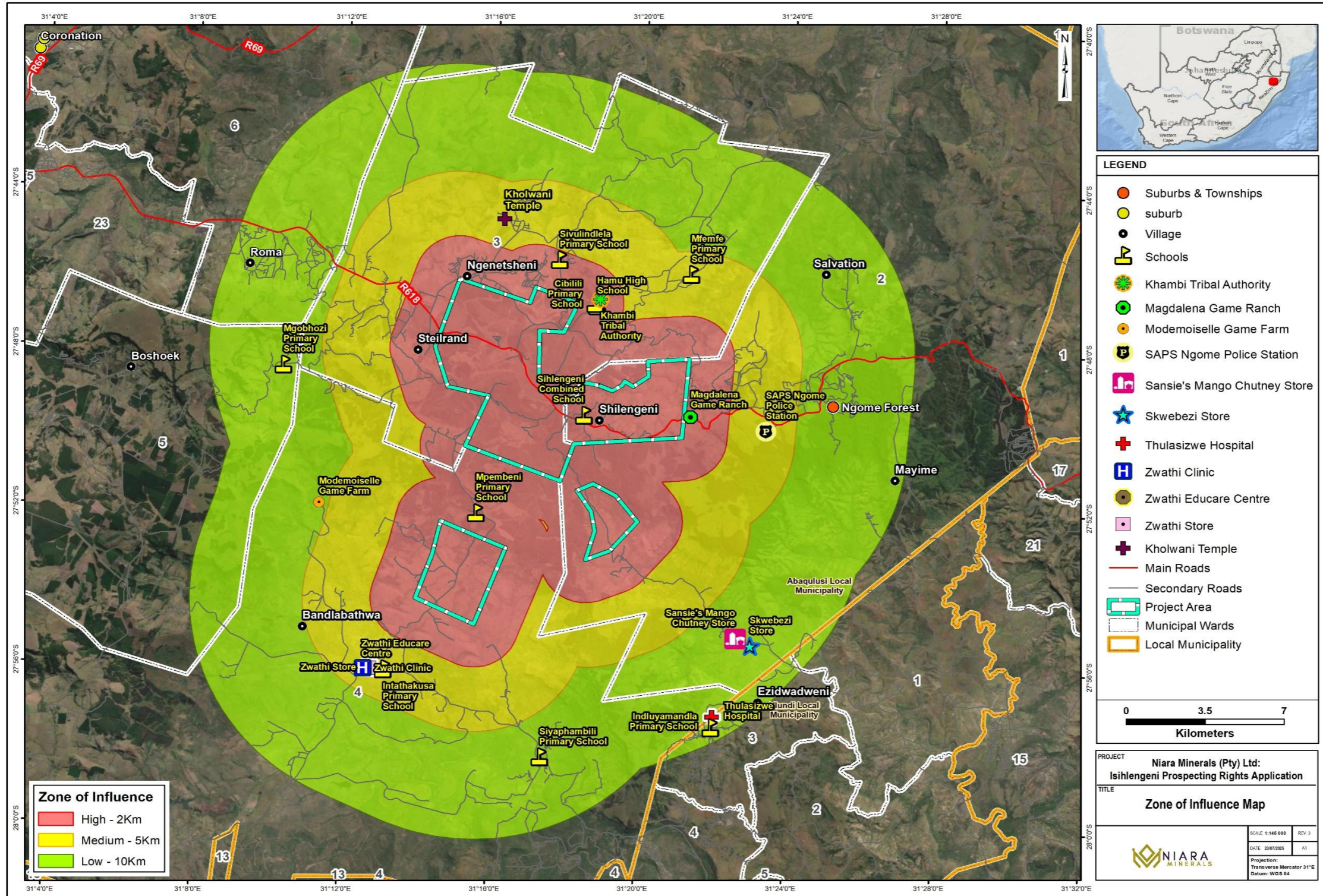


Figure 11-1: Zones of Influence

11.5 Housing

The primary zone is predominantly characterised by low-density, scattered rural homesteads, constructed using a mix of traditional materials (mud and thatch) and more modern alternatives such as concrete blocks and corrugated iron. Housing in this area reflects both cultural heritage and economic constraints, with limited formal planning or regulation. The prevalence of informal structures and incomplete dwellings may indicate systemic poverty and a lack of formal housing finance.

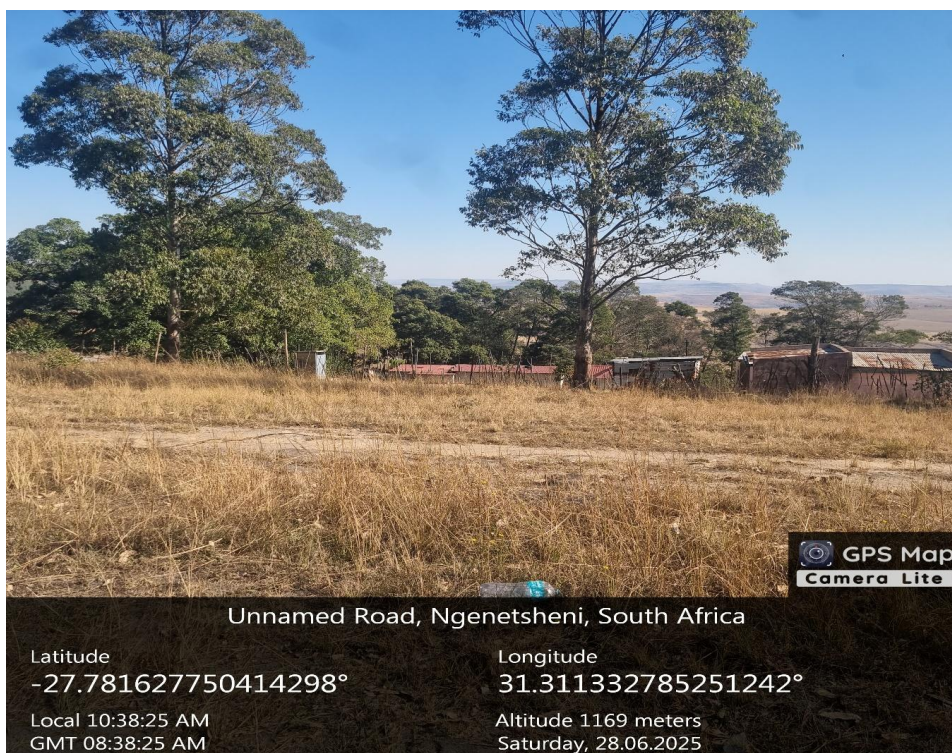


Figure 11-2: Local Household

The image reflects a typical household in the Ngenetsheni area, comprising a main brick structure and multiple back rooms constructed from corrugated iron sheets, with a pit latrine located adjacent to the dwelling. This built environment illustrates a common rural housing typology, where formal and informal structures coexist within a single homestead. The presence of informal extensions such as tin back rooms often indicates overcrowding or multi-generational occupancy, highlighting underlying socio-economic challenges such as limited access to affordable housing or government-subsidised accommodation (Stats SA, 2022). The reliance on a pit latrine, positioned in close proximity to living quarters, suggests restricted access to basic sanitation infrastructure, which may raise public health concerns particularly regarding groundwater contamination and disease transmission (WHO, 2019).

The proposed prospecting activities may lead to indirect impacts, such as increased stress on already limited-service delivery especially water, sanitation, and waste management systems. The introduction of exploration-related activity could influence settlement patterns and service needs in the area. On the other hand, prospecting could be a precursor to potential development that may bring employment opportunities or stimulate local infrastructure upgrades, if appropriately managed. However, without inclusive planning and community engagement, such benefits often bypass the most vulnerable groups (Lahiri-Dutt, 2014).

11.6 Access to Basic Services

Access to electricity, sanitation, and waste removal is inconsistent across the primary zone. While electrification has reached some households, load-shedding and cable theft pose regular disruptions. Many homes continue to rely on pit latrines, and formal refuse collection is generally absent, resulting in backyard dumping or open burning of waste. These gaps underscore spatial inequalities in service delivery, a common feature of former homeland areas and rural settlements in post-apartheid South Africa (Stats SA, 2022; Municipal Demarcation Board, 2023).

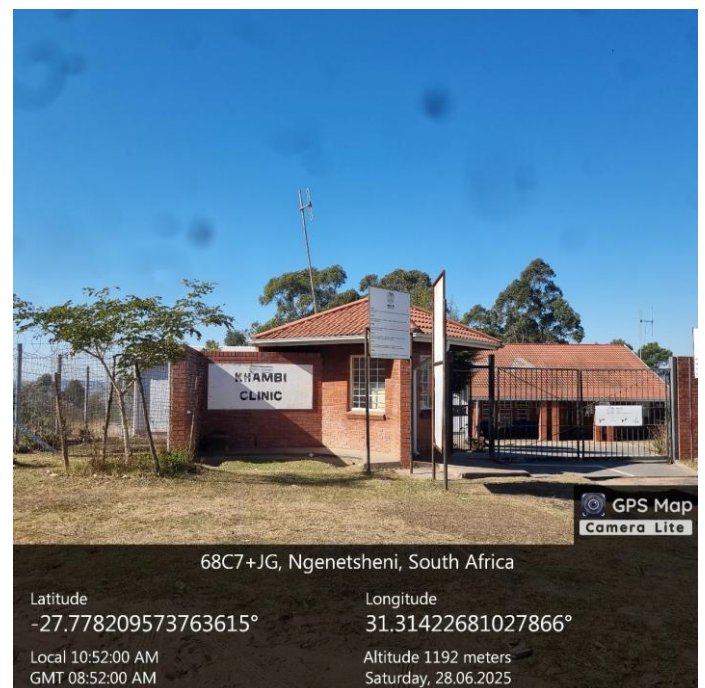


Figure 11-3: Khambi Clinic

The image of Khambi Clinic illustrates a well-maintained government health facility within the Ngenetsheni area. The presence of both pedestrian and vehicle gates, clear signage, and a security guard stationed in a designated room reflects a structured and regulated environment an encouraging sign of accessible, accountable primary healthcare provision. In many rural parts of South Africa, clinics like Khambi are the first and often only point of medical contact for large catchment areas, making their role in public health particularly important (Day & Gray, 2020).

These clinics are tasked with handling everything from minor injuries to chronic disease management, maternal health, HIV/AIDS treatment, and child immunisations. They also serve as key information centres for health education and public health surveillance. However, such facilities are often under pressure due to limited staff

numbers, medicine stock-outs, and aging infrastructure, particularly in the face of growing populations and fluctuating local economies (Gray et al., 2017).

If prospecting is introduced in the surrounding area, increased foot and vehicle traffic, short-term employment activity, or the presence of contractors could result in a spike in service demand—even during the exploration phase. Clinics such as Khambi may experience added strain without corresponding increases in resources or personnel. Additionally, increased dust and emissions from vehicles and equipment common in such phases could exacerbate respiratory or allergic conditions among patients, many of whom may already be vulnerable due to age, HIV status, or pre-existing chronic illnesses.

However, prospecting can also be a platform to strengthen the resilience of the local healthcare system. Health-focused community development initiatives may include infrastructure upgrades, supply chain support (e.g., backup power or refrigeration), funding for additional staff, or mobile clinic support to outlying areas. More importantly, engaging clinic staff in ongoing risk communication and health surveillance can ensure that community wellbeing remains at the heart of the exploration process. A collaborative approach between the project proponent, municipal health officials, and community health forums will be critical to maintain service quality while navigating the temporary disruptions of prospecting.

11.7 Schooling

Educational infrastructure in the primary zone consists primarily of public primary and secondary schools, many of which face infrastructure, staffing, and resource constraints. Access to quality education remains a challenge, with long walking distances to school and overcrowded classrooms common in the Project area. Schooling interruptions, such as absenteeism and high dropout rates, especially among girls, may also be prevalent due to socio-economic conditions. Tertiary education facilities are absent in the immediate area, limiting access to advanced learning.

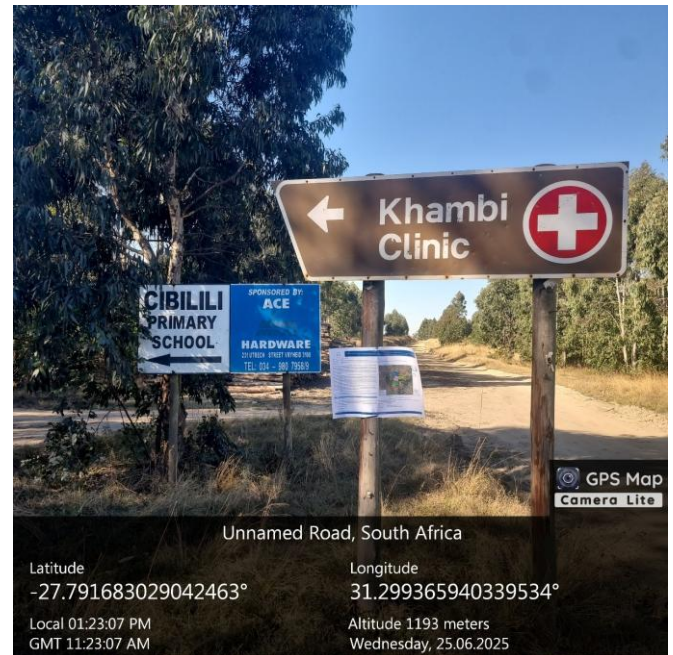


Figure 11-4: Road Sign Leading to Cibilili Primary School

The image of directional signage in the Ngenetsheni area, indicating routes to both Cibilili Primary School and Khambi Clinic, reflects a basic yet essential element of rural infrastructure that facilitates accessibility to critical social services. The presence of clear signage signifies some level of spatial organisation and government or municipal oversight in the area. For rural communities, wayfinding systems such as these are crucial for enhancing mobility, particularly for vulnerable populations including children, the elderly, and those seeking healthcare (Mchunu & Nzimande, 2021).

The proximity and visibility of signage pointing to both educational and health institutions underscore the significance of these services within the community's socio-economic fabric. However, prospecting-related development can alter local road networks, create detours, or cause damage to signage due to increased vehicle movement or surface disturbances. Disruption in access whether through physical obstruction or confusion arising from relocated or damaged signage can have tangible impacts on school attendance, healthcare access, and community safety. If carefully managed, infrastructure upgrades associated with prospecting could also include improved road signage and routing, supporting better long-term connectivity and service delivery.

11.8 Safety and Security

Community safety in the primary zone is largely maintained through informal systems, including social cohesion, traditional authority oversight, and community policing forums. There is a limited visible presence of formal law enforcement, and the nearest police station is often located several kilometres away, resulting in extended response times. Concerns around livestock theft, substance abuse, and petty crime are common in such rural settings (KZN Department of Community Safety, 2020). Households typically rely on self-fortification measures, such as fencing and gated yards, for security.



Figure 11-5: Ngome Police Station

Ngome Police Station serves as a key law enforcement hub for the broader Ngenetsheni, Isihlengeni, and surrounding areas. Police stations in rural settings like this are often responsible for vast geographical areas with limited resources and are expected to maintain order, respond to crimes, and facilitate conflict resolution with a small team and minimal infrastructure (Newham, 2020). Nonetheless, their symbolic and practical value in fostering community safety is substantial.

In addition to responding to criminal activity, rural police stations play a preventative and peacekeeping role, often working closely with traditional leaders and community policing forums. They manage everything from livestock theft and domestic disputes to road safety and public unrest. Given these wide-ranging responsibilities, any shift in local social dynamics such as those that could be introduced through prospecting requires proactive coordination with SAPS.

If prospecting is initiated, the station may experience increased demands on its capacity due to heightened vehicle traffic, temporary in-migration of contractors, or changes in land access patterns. While prospecting does not involve extraction or large-scale land alteration, even minimal infrastructure development can give rise to social tensions, particularly if expectations of employment or community benefits are unmet or misunderstood. The station may be called upon to mediate disputes or respond to safety concerns arising from exploration-related activities or stakeholder engagement processes.

To ensure Ngome Police Station is not overburdened during this period, a clear communication and cooperation framework is recommended. Prospecting applicants can engage SAPS early to establish incident reporting protocols, shared community messaging, and coordinated patrol planning if needed. This will also allow SAPS to proactively address public safety concerns, support conflict prevention, and strengthen relationships with community leadership. Beyond immediate needs, opportunities exist to support policing capacity such as improving station infrastructure, enhancing vehicle availability, or sponsoring community education programmes focused on safety, rights, and responsibilities. Done thoughtfully, these efforts can contribute to a safer, more informed environment for all parties involved.

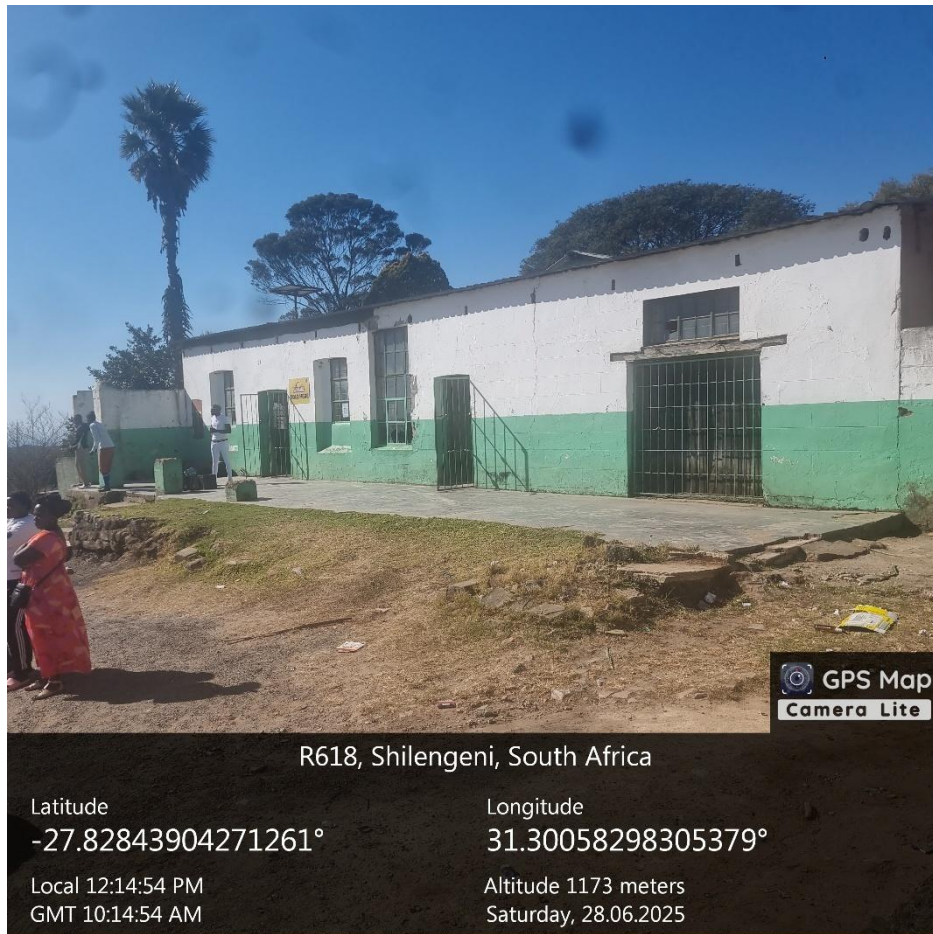


Figure 11-6: Local Shop

The image portrays a cluster of local shops in the Ngenetsheni area, offering a range of essential goods including food items and locally harvested honey. These informal or semi-formal businesses are characteristic of rural economies, often operated by local entrepreneurs or families. Such enterprises serve as key access points for daily necessities in areas where large retail outlets are absent and transportation is limited. The sale of locally sourced honey reflects the community's dependence on natural resources for livelihoods and trade and may also indicate small-scale agroecological or beekeeping activities that are culturally and economically significant (FAO, 2018).

The proposed prospecting phase poses both risks and opportunities for this local retail ecosystem. On the one hand, increased economic activity and population influx could lead to a rise in demand, potentially boosting local trade and creating spin-off markets. On the other hand, exploration activities may disrupt existing commercial patterns through dust pollution, road use, or land-use conflicts, especially if prospecting occurs near community trading zones (Esteves et al., 2012). Displacement of local vendors by external suppliers linked to the prospecting project is also a possibility without deliberate economic inclusion. To protect local economic resilience, support mechanisms such as preferential procurement, market access, and enterprise development should be included in social management planning.

11.9 Agriculture

Subsistence agriculture remains a cornerstone of local livelihoods in the primary zone. Residents cultivate maize, beans, and vegetables on communal or family-owned plots, and livestock, primarily cattle and goats, are grazed on shared land. However, agricultural productivity is constrained by poor soil quality, limited access to irrigation, and lack of mechanisation (Department of Agriculture, 2022). Climate variability and land degradation further threaten the sustainability of agricultural practices in the area.

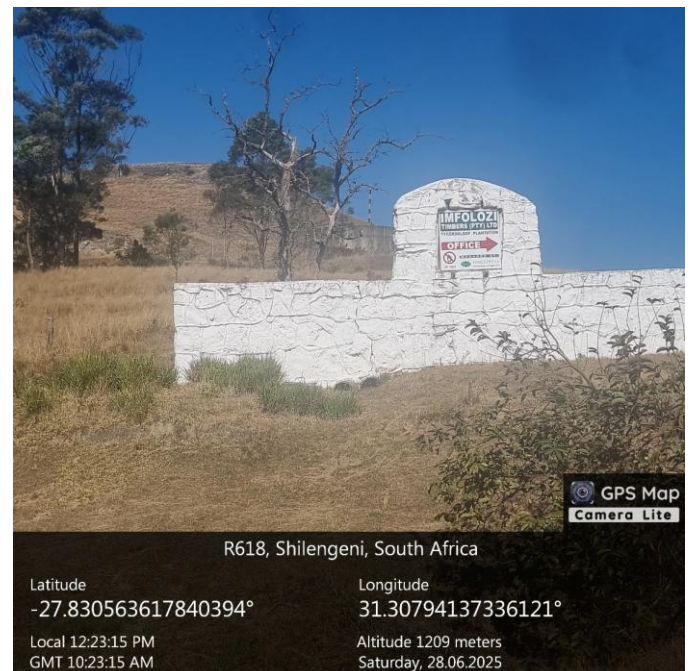


Figure 11-7: Imfolozi Timber Entrance

The image of signage for Imfolozi Timber signifies the presence of commercial forestry operations in the Ngenetsheni and surrounding areas, pointing to an active local timber economy. The visible branding and formal signage reflect the institutionalised nature of timber-related businesses in the region, suggesting the use of surrounding land for plantation forestry, timber harvesting, or wood processing. The prevalence of such businesses is likely tied to the area's rich natural resources and fertile land, which support both large-scale commercial operations and smaller community-based forestry initiatives. This sector contributes significantly to local employment and revenue generation (DWAF, 2005).

The existing presence of timber enterprises introduces an important dynamic in assessing the proposed prospecting activity. Land-use competition may arise, as both forestry and prospecting exploration are resource-intensive industries with spatial footprints that could overlap. Exploration may also disturb ecosystems supporting forestry operations, raising the risk of operational conflict or productivity loss. However, if carefully managed, the coexistence of prospecting and forestry industries could diversify the local economy and offer resilience against sector-specific downturns. Fair labour practices, transparent land access, and community engagement remain key to avoiding socio-economic tensions.

11.10 Access to Water

Households in the primary zone rely on a combination of communal standpipes, rainwater harvesting, rivers, and boreholes for water. While some communities are connected to the municipal water grid, intermittent supply and infrastructure failure are frequent, necessitating reliance on unsafe or informal sources (DWS, 2022; COGTA KZN, 2021). Water scarcity, particularly during dry seasons, often leads to competition and conflict at communal points and poses risks to human health and sanitation.

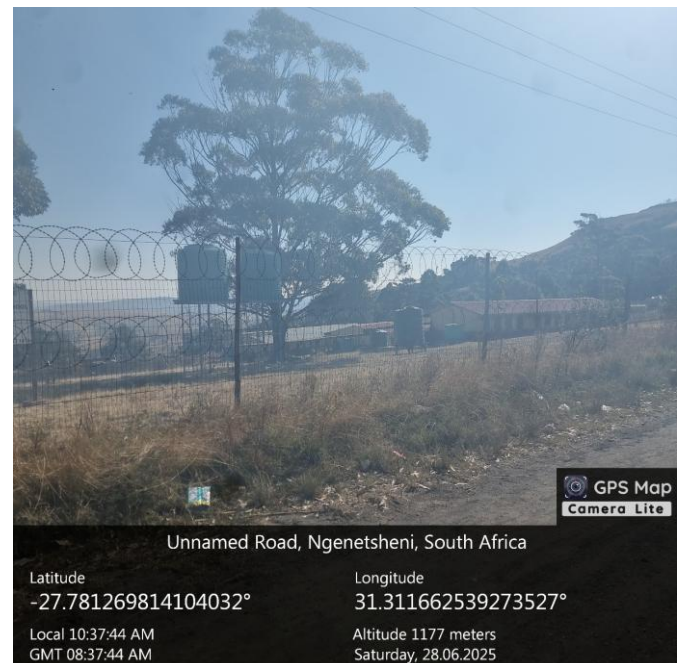


Figure 11-8: Jojo Tanks at a School

The image of Cibilili Primary School, framed by a backdrop of smoke from veld fires, offers a revealing snapshot of rural education infrastructure in the Ngenetsheni area. The school appears to be operational and functional, with visible JoJo water tanks elevated on sturdy pillars likely installed to ensure consistent access to water for sanitation and hygiene, especially where piped services may be unreliable or absent. In many rural South African settings, such tanks are community-funded, donor-provided, or part of municipal support schemes and play a crucial role in sustaining school operations (UNICEF, 2020).

Schools like Cibilili are not only sites of learning but also critical community assets. They often serve as local meeting venues, voting stations, feeding scheme hubs, and places of safety for children during emergencies. The visible impact of veld fires in the surrounding area raises health and safety concerns, especially considering the open layout and limited barriers between schools and environmental hazards. Dust, smoke, and debris can affect children's respiratory health and learning capacity issues that are already prevalent in low-resource environments (WHO, 2019).

If prospecting activities are authorised nearby, the presence of heavy vehicles, increased dust generation, and noise may temporarily disrupt teaching and learning. The psychological impact of unfamiliar machinery and personnel in a child-focused space must also be considered, as rural schools often function as emotional and social sanctuaries. Moreover, infrastructure like JoJo tanks is vulnerable to damage from vibration or accidental collision and must be protected to ensure continuity in hygiene and nutrition services.

At the same time, there is strong potential for positive contribution through education-focused development partnerships. A prospecting applicant could engage with the Department of Basic Education, School Governing Bodies, and community members to provide support beyond compliance such as refurbishing classrooms, sponsoring educational materials, upgrading sanitation, or introducing digital learning tools. Initiatives like these contribute toward the goals of the National Development Plan (2030), which identifies education as the foundation for eliminating poverty and reducing inequality. Any engagement must, however, be inclusive, transparent, and designed in alignment with the school's unique needs and context.

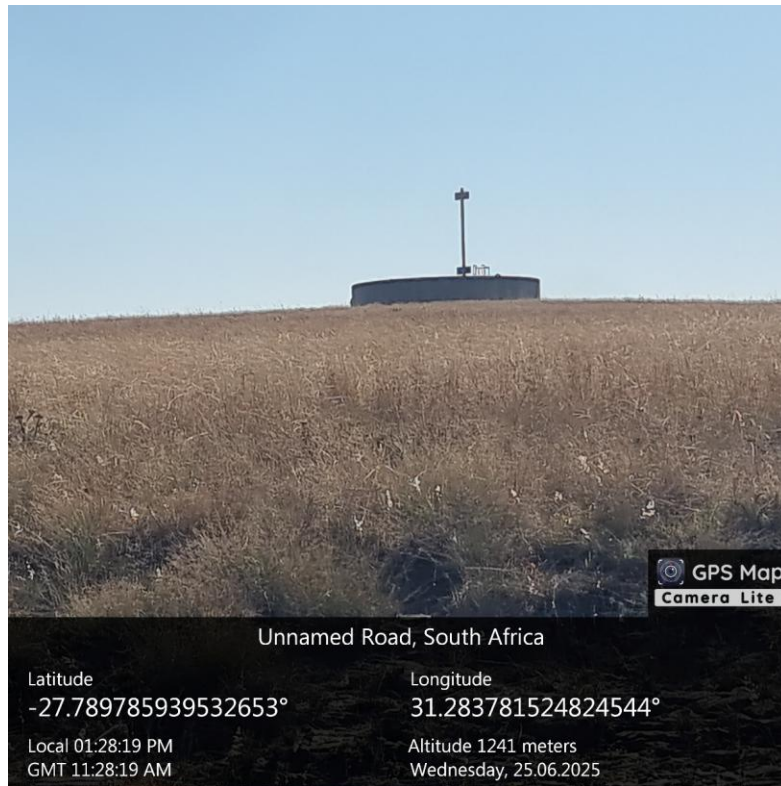


Figure 11-9: Water Reservoir

The image of a solitary water reservoir positioned atop a hill in the Ngenetsheni area suggests the presence of a centralised but limited water storage system serving nearby communities. Elevated reservoirs are typically used to facilitate gravity-fed distribution, especially in rural or semi-rural areas where electricity access and pumping infrastructure may be inconsistent (DWAF, 2009).

The proposed prospecting activities could place this already scarce water infrastructure under significant pressure. While prospecting may not consume water at the same level as extraction, dust suppression, site clearing, and exploratory drilling can still lead to competition over local water resources. Disruption to water access whether through contamination, land disturbance, or vehicle movement could affect community health and livelihoods, particularly for women and children responsible for water collection (UN-Water, 2021). If responsibly managed, prospecting could serve as a catalyst for water infrastructure investment, provided planning is participatory and benefits are equitably shared.

11.11 Roads and Transportation

The area is served primarily by gravel and dirt roads, many of which are in poor condition, especially during rainy seasons. Limited maintenance, erosion, and the absence of drainage infrastructure contribute to restricted mobility and isolation during adverse weather. Public transport is largely informal—relying on minibus taxis or bakkies—which are often irregular and costly relative to income levels (Department of Transport, KZN, 2023). The poor state of road infrastructure has implications for access to markets, schools, clinics, and employment opportunities.



Figure 11-10: Tarred Road with Road Signs

The image captures a well-constructed road leading out of the Isihlengeni area, flanked by forestry plantations and marked by signage directing travellers to the Ngome Police Station. The presence of visible power lines confirms the availability of electricity in the region, suggesting a certain level of infrastructural development and service provision. Such roads are essential for mobility, trade, and access to services in remote areas.

The prospecting phase could impact the existing road network either positively or negatively. On the one hand, access routes required for exploration could enhance regional connectivity. On the other hand, increased heavy vehicle traffic and dust emissions during prospecting work could degrade road quality, pose pedestrian safety risks, and disrupt forestry operations. Power demand for exploration camps or equipment may also strain local electricity supply unless carefully planned. Infrastructure improvements could be realised if community needs are integrated into the project’s planning and benefit-sharing arrangements.

11.12 Recreational Facilities

Recreational infrastructure in the primary zone is sparse. There are few, if any, formally designated parks, sports fields, or youth centres. Open spaces are occasionally used for informal soccer matches or cultural gatherings, but these are not equipped or maintained. The absence of recreational amenities may contribute to youth disengagement and lack of structured after-school activities, reinforcing social vulnerability and potential behavioural issues (KZN Youth Development Strategy, 2021).

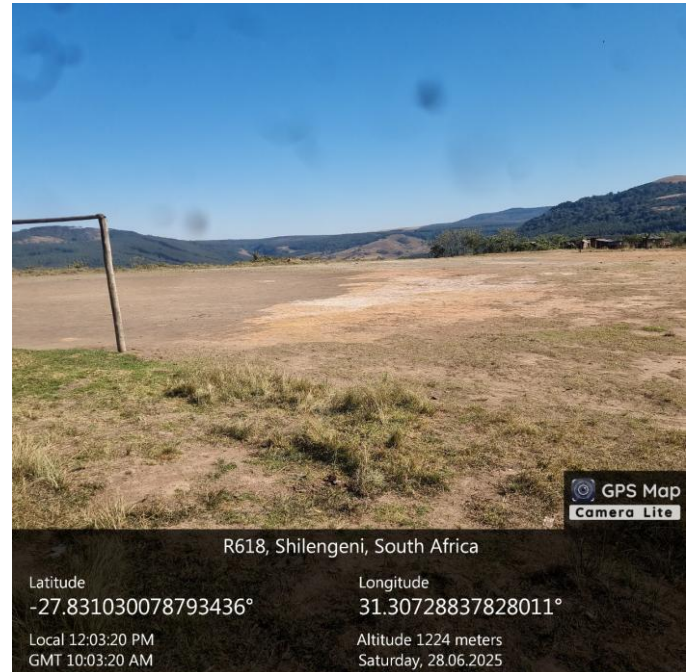


Figure 11-11: Football Field

The image depicts a dusty football field, with no grass, with rudimentary wooden goalposts, likely a shared recreational space in the Isihlengeni area. Despite its informal structure, this field holds deep socio-cultural value. In rural South Africa, where formal recreational facilities are rare or underfunded, such open fields serve as vital social spaces, particularly for young people. They provide more than just an outlet for physical activity, they offer safe environments that foster community cohesion, informal mentorship, and mental wellbeing (Burnett, 2015). These spaces also play a preventative role, diverting youth from high-risk behaviours by enabling structured social engagement through sport.

The condition of the field is ungrassed, uneven, and dusty reflects broader trends of infrastructure underinvestment in historically disadvantaged areas. In the context of rural development, such spaces are often created and maintained by community members themselves or supported through school-based initiatives yet receive minimal support from municipal recreational services. This speaks to a wider theme of resilience and social capital, as communities continue to create social value in the absence of formal infrastructure.

Should prospecting be authorised in the area, increased traffic, dust emissions, or temporary land use changes could reduce the field's usability. Though exploration activities may be limited in footprint compared to later phases of development, even short-term disruptions can have long-lasting social effects when they interrupt regular, positive youth routines. The introduction of machinery, transport trucks, or security fencing near these informal spaces may also create perceived or real safety risks, deterring participation.

There is, however, an opportunity here. As part of its Social and Labour Plan or broader community development commitments, the prospecting applicant could invest in formalising and enhancing this site, levelling the surface, planting grass, installing durable goalposts, and even involving youth in sports development programming. These improvements not only create tangible legacy impacts but align with broader national objectives, such as those outlined in the National Sport and Recreation Plan and the National Youth Policy. To ensure success, community voices must drive this process, particularly those of young people, educators, and local leaders who use and protect these spaces daily.

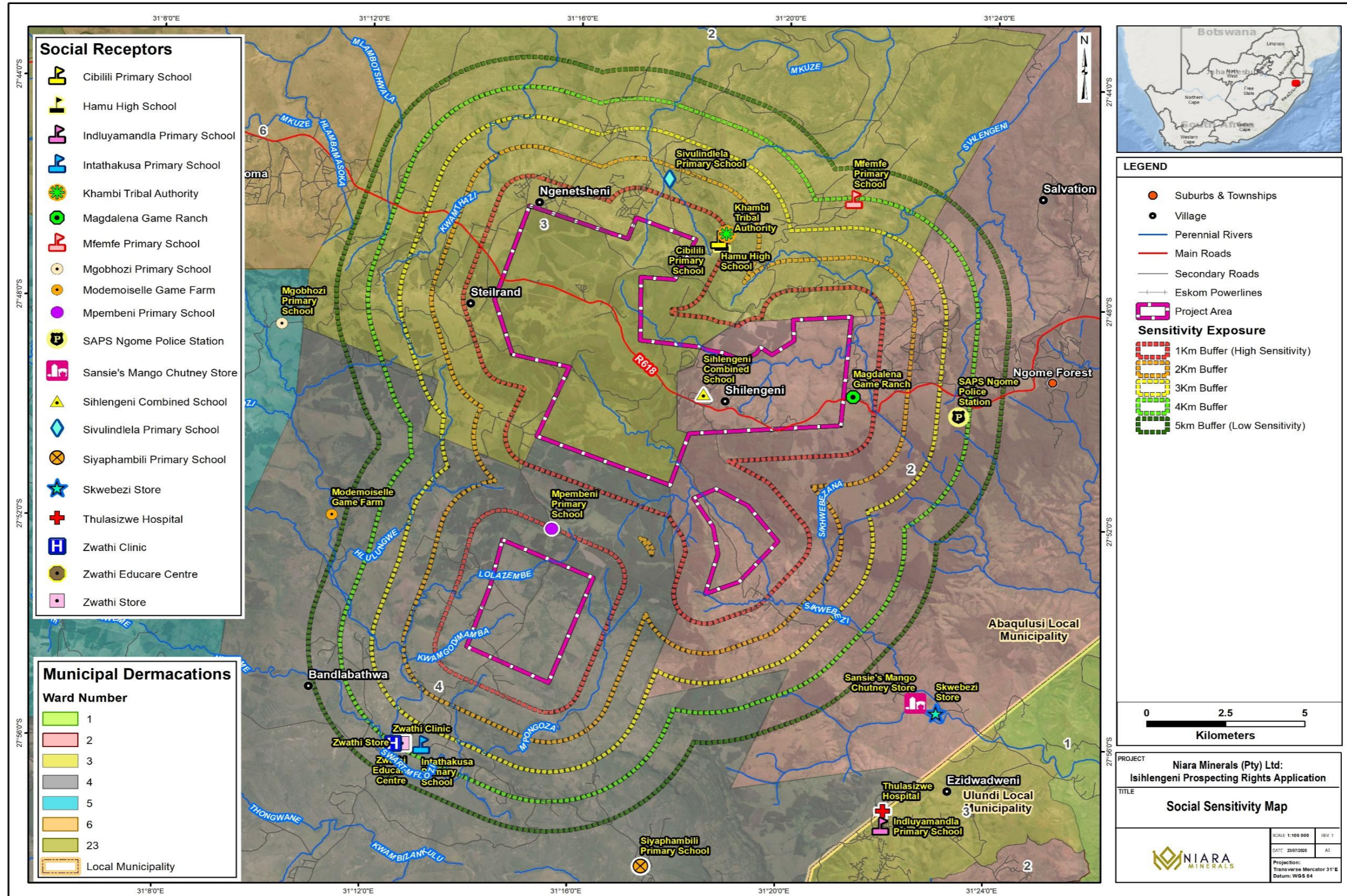


Figure 11-12: Social Sensitivity - 10km Buffer

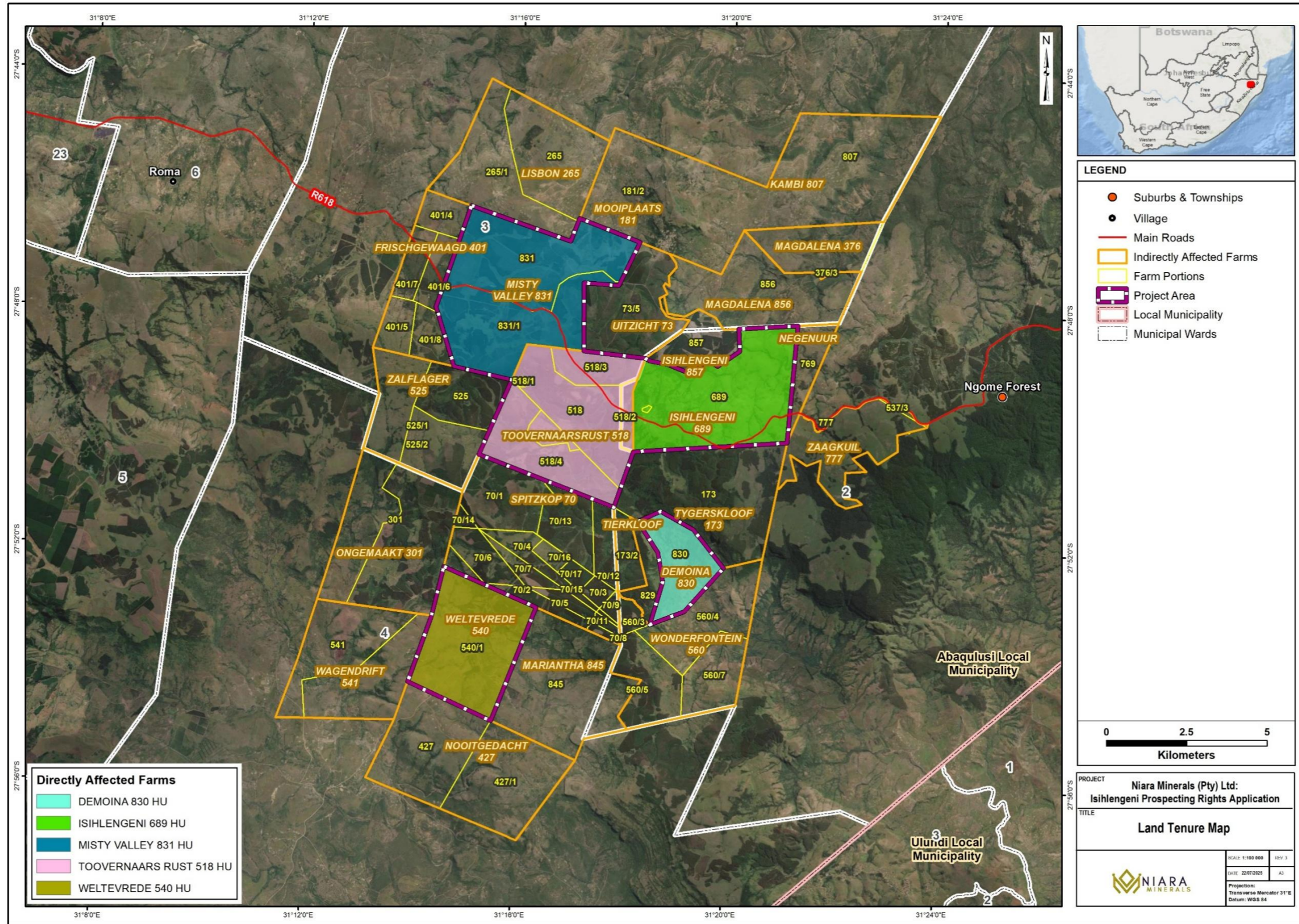


Figure 11-13: Land Tenure

12 Environmental Statement

This Social Impact Assessment (SIA) supports the application for a Prospecting Right by Niara Minerals (Pty) Ltd within the Abaqulusi Local Municipality in KwaZulu-Natal. Based on the findings of the SIA, the proposed project presents a balanced set of low-risk, short-term social and environmental implications, alongside limited but meaningful opportunities for local benefit. From a social sustainability perspective, and provided that robust mitigation and engagement mechanisms are upheld, the project is deemed supportable at the prospecting stage.

12.1 Reflections on Social and Environmental Context

The proposed activities, comprising the drilling of approximately 10 to 15 boreholes over a defined 15-hectare prospecting area, are temporary and non-invasive in nature. The project does not require the erection of permanent infrastructure, nor will it result in physical displacement or the irreversible transformation of land use. As such, the anticipated environmental and social footprint is contained and can be adequately mitigated.

The project is located in a rural, communally governed area where socio-economic conditions are fragile, characterised by high unemployment, reliance on subsistence agriculture, and limited service delivery. These realities create both a sensitivity to disruption and a receptivity to opportunity. While the prospecting process itself is unlikely to deliver long-term employment or substantial local development, the short-term job creation, modest procurement, and potential for upskilling offer welcomed socio-economic relief, albeit on a limited scale.

Potential negative impacts, such as disruption of communal land use, noise, dust emissions, or raised community expectations, are largely predictable and can be managed through standard operational controls and meaningful community engagement. Crucially, there is no indication that the prospecting activities would cause lasting harm or trigger social instability, provided that stakeholder communication remains transparent and culturally appropriate.

12.2 Motivation for the Proposed Activity

From a social sustainability standpoint, the proposed prospecting right is reasonable and proportionate to its expected impact. The activity is designed to be exploratory in nature, with no commitment to full-scale mining unless resource viability is confirmed and subject to further environmental authorisation. This measured approach aligns with the principles of sustainable development under Section 2 of the NEMA, which promotes responsible resource exploration while safeguarding socio-ecological systems.

Furthermore, the project aligns with South Africa's broader developmental objectives by enabling data-driven decisions regarding mineral potential, an essential step for future economic planning and investment. The "No-

Go” alternative, while environmentally inert, would preclude the opportunity to gather valuable geological information and limit potential pathways for local economic advancement.

12.3 Professional Opinion

Based on the low level of environmental and social risk, the absence of physical displacement, and the potential for short-term socio-economic benefits, it is the considered opinion of the SIA Specialist that the proposed prospecting right be supported, subject to the implementation of appropriate mitigation measures. These include effective stakeholder engagement, transparent communication of project limitations, and environmental safeguards throughout the life of the activity.

Should these measures be upheld, the prospecting activity can proceed in a manner that is both environmentally responsible and socially acceptable, setting a foundation for future, more comprehensive assessments if mining is later pursued.

12.4 Summary of Key Findings

- The proposed prospecting activities are limited in scale (15 hectares) and duration, with low physical and environmental disturbance expected.
- The area is largely rural and communally governed, with local communities dependent on subsistence farming, livestock grazing, and customary land use.
- Site establishment and drilling activities may temporarily disrupt local access to land and generate minor dust and noise emissions, particularly during the construction and operational phases.
- Employment and procurement opportunities are likely to be minimal but could offer short-term social benefits to a small number of local residents.
- If poorly managed, the project could result in raised community expectations, feelings of exclusion, and mistrust, particularly if engagement is not inclusive, clear, and transparent.
- The “No-Go” alternative would avoid all potential impacts but would also forgo the opportunity to assess mineral resources that may contribute to future economic development.
- No physical displacement, permanent infrastructure, or irreversible land transformation is anticipated at the prospecting stage.

12.5 Summary of Positive and Negative Implications and Risk Potential

Positive Implications:

- **Short-term Local Employment:** Temporary job creation during site preparation, drilling, and rehabilitation phases.
- **Skills Development:** Potential for limited training in safety, technical work, or site logistics for a few local workers.
- **Local Procurement:** Modest opportunities for local businesses or service providers to supply food, transport, or basic equipment.

Negative Implications and Risks:

- **Access Disruption:** Temporary restriction to communal land could inconvenience households reliant on farming or grazing.
- **Dust, Noise, and Nuisance:** Localised discomfort during drilling and vehicular movement.
- **Community Expectations:** Unrealistic expectations around employment or long-term development may generate dissatisfaction if not managed properly.
- **Trust Deficit:** If consultation is inadequate, project proponents may face resistance in future applications.
- **Cumulative Risk:** Combined with other prospecting or mining activities in the region, the project may contribute to longer-term pressure on land and social systems.

Overall Risk Potential: Given the small scale and temporary nature of the proposed activities, the overall risk potential is low to moderate, provided that mitigation measures are implemented, and ongoing engagement with affected stakeholders is maintained throughout the project lifecycle.

13 Need and Desirability

The need for the proposed prospecting right stems from South Africa's ongoing requirement to sustainably manage and utilise its mineral resources to support economic development, energy security, and job creation. Coal and related resources such as pseudo-coal and torbanite/oil shale remain significant contributors to the national energy mix and industrial processes. The prospecting activities proposed by Niara Minerals (Pty) Ltd aim to determine the viability of these resources in the specified area, which could, if economically feasible, inform future responsible extraction in alignment with national energy and development priorities.

From a local perspective, the desirability of the project is linked to the potential socio-economic benefits it could introduce, even at a small scale. The Abaqulusi Local Municipality faces high levels of unemployment and underdevelopment, with many communities reliant on subsistence livelihoods. The proposed prospecting could contribute to local empowerment through limited employment, skills development, and procurement opportunities. Furthermore, early-stage investment in the area signals economic interest in a region where sustainable development options are needed.

However, desirability is conditional on the project's ability to proceed in a socially and environmentally responsible manner. Transparent community engagement, minimal disruption to existing land uses, and adherence to legislative obligations will be crucial in ensuring that the project aligns with both local community interests and broader strategic development goals.

14 Stakeholder Engagement

Stakeholder engagement is a central component of the environmental and social assessment process, ensuring that potentially affected parties have the opportunity to participate meaningfully in the decision-making process. In accordance with the NEMA and the associated EIA Regulations (2014, as amended), public participation has been undertaken as part of the Basic Assessment Process.

This chapter summarises the key socio-economic issues and concerns raised during the stakeholder engagement process for the proposed Prospecting Right Application.

14.1 Overview of Engagement Approach

Stakeholder engagement was undertaken in line with the requirements of NEMA and associated public participation regulations. Public meetings, telephonic discussions, direct consultations with traditional leadership, landowners, the Ogwini Community Trust, and I&APs formed the basis of the process. Key engagements included a public meeting on 26 July 2025, consultations with landowners, community members, organisations such as Ezemvelo KZN Wildlife, and forestry operators (notably NCT Forestry Agricultural Co-operative Limited).

The focus of this section is on socio-economically inclined comments, reflecting local concerns about access to land, employment, impacts on livelihoods, project transparency, land ownership, and historical grievances from previous land users.

14.2 Emerging Issues and Community Concerns

The stakeholder engagement process undertaken as part of this SIA revealed a range of community concerns and perceptions, many of which are shaped by historical legacies, current livelihood dependencies, and the socio-political context of land use in the Abaqulusi Local Municipality. These concerns reflect both apprehension and cautious optimism surrounding Niara Minerals (Pty) Ltd's proposed prospecting activities.

14.2.1 Project Transparency and Long-Term Intentions

A central concern consistently raised by local stakeholders is the perceived lack of clarity regarding the long-term trajectory of the proposed project. While Niara Minerals has formally applied for a Prospecting Right in terms of Section 16 of the MPRDA, community members have expressed apprehension that the prospecting phase may serve as a precursor to full-scale mining. This concern is rooted in prior regional experiences, where initial exploration activities eventually transitioned into mining without adequate consultation, compensation, or long-term benefit-sharing mechanisms.

To address this, stakeholders have called for greater transparency on project timelines, anticipated phases, and the legal limitations of a prospecting right, particularly as regulated under the MPRDA and the NEMA. The emphasis is on ensuring that the distinction between prospecting and mining is clearly communicated and legally upheld throughout the project lifecycle.

14.2.2 Land Access, Livelihood Disruption, and Customary Tenure

The proposed prospecting activities, though limited to a 15-hectare area, overlap with land that is communally used for subsistence farming, livestock grazing, homesteads, and spiritual practices. For communities living under customary tenure systems and traditional leadership, access to land is fundamental to survival and cultural identity. The community raised concerns regarding the temporary disturbance that may arise from trenching, drilling, increased vehicular activity, and land clearing during site establishment.

Participants emphasized the need for the project proponent to obtain formal access permissions not only from registered landowners but also from customary land users and Traditional Authorities, as required under both the MPRDA and NEMA. Respect for communal land rights and recognition of cultural protocols, especially in relation to sacred sites and ancestral lands, is considered non-negotiable by local leadership.

14.2.3 Economic Expectations and Local Development Aspirations

Despite the above concerns, communities have shown interest in the short-term economic benefits associated with the prospecting phase, particularly temporary employment, local procurement opportunities, and skills

development. Given the high unemployment rate and dependence on social grants in many rural areas of the Amajuba and Zululand districts, the potential for income generation, even if limited, was viewed positively.

However, concerns were also raised about the equitable distribution of benefits, with warnings that poorly managed employment processes could lead to elite capture, nepotism, or social fragmentation. Stakeholders recommended that the project implement transparent recruitment processes, inclusive of women and youth, and that any job opportunities be advertised publicly or through recognised community forums.

14.2.4 Consultation, Cultural Sensitivity, and Protocols

The engagement process revealed past dissatisfaction with extractive industry engagements, which were often perceived as top-down, opaque, and exclusionary. As such, community members repeatedly stressed the importance of inclusive, ongoing, and culturally respectful consultation processes.

Traditional leaders, such as Chief Buthelezi, raised specific concerns regarding the sequence and protocol of consultation, particularly the need to engage with Traditional Authorities prior to submitting formal applications to the DMRE. Questions were raised regarding how Niara Minerals obtained contact details for traditional leaders and whether prior consent had been secured. This underscores the importance of engaging with community gatekeepers in accordance with Section 2(4)(k) of NEMA, which promotes integrated, participatory environmental governance.

14.2.5 Environmental Concerns and Perceived Risks

Although the project is limited to prospecting activities, stakeholders expressed concern about dust emissions, noise pollution, soil erosion, and the potential degradation of land and water resources. These concerns are particularly heightened in areas used for subsistence farming or located near ecologically sensitive areas identified in the project's screening process (e.g., wetlands, mistbelt grasslands).

It was explained during engagements that no blasting or permanent infrastructure is planned, and that activities will be confined to defined footprints. The project will comply with the EMPr and NEMA requirements, including provisions of the NEM: WA and the NWA. Stakeholders were informed that disturbed areas would be rehabilitated progressively, and that trenching and drilling would be carefully sited to avoid sensitive features.

14.2.6 Summary and Recommendations

The emerging issues and concerns raised by local stakeholders reflect a complex interplay of historical mistrust, socio-economic vulnerability, and cautious optimism. While the potential for temporary economic benefit exists, it is clear that the project's legitimacy and social licence to operate will depend on its ability to:

- Provide clear and consistent communication about its scope and legal limitations.

- Respect customary tenure arrangements and consultation protocols.
- Avoid physical and cultural harm by applying rigorous environmental and social safeguards.
- Ensure equitable and transparent access to short-term benefits such as employment and procurement.
- Build trust through continuous engagement, responsiveness to grievances, and visibility of environmental stewardship.

Niara Minerals (Pty) Ltd, together with Temvelo Consultants, will take these issues seriously and incorporate them into the final EMPr and the project’s ongoing stakeholder engagement strategy. Active listening, proactive communication, and ethical project conduct will be essential to ensuring that community concerns are not only heard but meaningfully addressed.

14.3 Summary of Key Socio-Economic Issues Raised

Theme/Concern	Stakeholders Raising the Issue	Summary of Concern
Land Ownership, Access, and Use	Ogwini Trust, I&APs, Community Landowners, Traditional Authority	Requests for clarity on affected land parcels, prior applications, commercial forestry leases, and the legitimacy of land rights (especially Ugu and Ogwini Trust lands). Concerns also raised regarding co-existence with current leaseholders (e.g., forestry operations).
Previous Unfulfilled Commitments by Other Companies	Ogwini Trust, Community Members	Distrust based on past experiences where prospecting/mining entities failed to rehabilitate land or compensate landowners.
Employment and Local Benefit Expectations	Community Members, Youth	Requests for job opportunities, especially for youth and locals; interest in long-term employment if mining follows prospecting.
Heritage and Cultural Site Protection	Trusts, Traditional Authorities	Appreciation of heritage impact assessments. Request that community members assist in identifying culturally significant sites.
Consultation Protocols and Respect for Traditional Leadership	Traditional Authority, Landowners	Concern over sequence of engagement, specifically that chiefs were not consulted prior to DMRE.

Theme/Concern	Stakeholders Raising the Issue	Summary of Concern
Environmental Risks to Water and Land	Ogwini Trust, I&APs	Concern over potential contamination of water sources from boreholes; fears of land degradation.
Transparency and Mapping	Landowners, Forestry Operators, I&APs	Lack of clarity on borehole locations, site layout, trench placement, and project boundaries.
Overlap with Forestry Operators (NCT)	NCT Forestry Co-op	Lack of notice, concerns about trenching near plantations, potential impact on FSC certification, water quality, and business interruption.
Promotional Benefits and Visibility	Youth, Community Representatives	Requests for community promotional items (e.g., branded T-shirts) if the project succeeds.

14.4 Summary of Mitigation Measures

Issue	Key Mitigation Action
Employment	Local job registry; preference to local youth; short-term safety and logistics training
Land Use Conflicts	Engage with leaseholders; avoid active forestry; site trenches in degraded/non-cultivated areas
Cultural Sites	Heritage assessment supported by local elders; no-go zones for sacred sites
Communication Gaps	Improved site mapping; translated documents; continued consultation
Water Risk	Buffer zones around wetlands; no drilling near rivers or springs; strict borehole management
Forestry Impacts	Collaborative trench planning with NCT; assess access routes and FSC implications
Environmental Sensitivities	Commission and include all required specialist studies; follow mitigation hierarchy rigorously
Expectations Management	Transparent communication on project scope, timelines, and limitations

The socio-economic engagement process revealed generally cautious but constructive community interest in the prospecting project, contingent upon transparency, inclusion, and environmental safeguards. While local

communities express hope for job creation and fair treatment, historical mistrust and concerns about land degradation persist. Stakeholders such as traditional leaders, landowners, and forestry operators rightly expect clear maps, accurate information, and respect for land rights.

Through inclusive and responsive engagement, Niara Minerals (Pty) Ltd has an opportunity to build trust, clarify its limited prospecting intentions, and lay the groundwork for responsible, low-impact exploration that does not compromise the environmental or social fabric of the region.

15 Impact Assessment

The proposed Isihlengeni Prospecting Project, while modest in scale and duration, is situated within a socio-economically sensitive rural context. The project area falls within the jurisdiction of the Abaqulusi Local Municipality, where local communities rely heavily on communal land for subsistence farming, livestock grazing, and cultural practices. This setting introduces a range of socio-economic sensitivities that must be carefully navigated, even for a prospecting activity that does not involve full-scale mining. Below, we assess the anticipated social and economic impacts associated with each phase of the project lifecycle and propose corresponding mitigation strategies to minimise harm and promote potential benefits.

15.1 Construction Phase Impacts

15.1.1 Temporary Disruption of Land Use

During the construction phase, the establishment of borehole sites and access routes will require small-scale land clearance. Although this physical disturbance is relatively minor in scope, it may have disproportionate effects on communities where every piece of arable or grazing land is integral to daily survival. Communal land in the region is often used without formal cadastral demarcation, meaning that residents rely on ancestral claims or traditional authority for access. The temporary loss of access to even small sections of land—used for livestock grazing, seasonal cropping, or firewood collection—can therefore create tension, particularly if not communicated clearly or negotiated through customary protocols. This disruption is also likely to affect vulnerable groups such as elderly-headed households and subsistence farmers who have limited means of adapting to sudden changes in land availability.

Mitigation Measures:

- Conduct participatory land-use mapping to identify and avoid critical livelihood zones.
- Engage with traditional authorities and land users to agree on clearance zones and access routes.
- Schedule clearing activities outside peak agricultural or grazing periods.

- Implement temporary access corridors or diversions for livestock and pedestrian traffic.

15.1.2 Dust and Noise Nuisance

The mobilisation of equipment, the use of bulldozers or other machinery, and the movement of construction vehicles during site establishment are likely to generate dust and noise. Although these impacts are temporary, their effect on communities—especially those situated within 2 km of the project—may be significant. Dust can affect respiratory health, damage crops, or soil washing left to dry near homesteads. Noise, on the other hand, may disturb livestock and interfere with the tranquillity of rural life. Vulnerable groups, such as the elderly or those with pre-existing health conditions, may be particularly affected. Without proper control measures, the initial phase of the project could generate negative sentiment and reduce community willingness to cooperate during later stages.

Mitigation Measures:

- Use water tankers to dampen exposed soil during clearing and construction.
- Limit construction activities to daylight hours (preferably 08:00–17:00).
- Maintain equipment regularly to ensure minimal noise output.
- Establish a grievance redress mechanism that allows communities to report dust or noise complaints.

15.1.3 Increased Vehicle Movement and Community Safety

The transport of heavy equipment and personnel to and from the site may increase traffic on gravel or narrow local roads that are commonly used by pedestrians, schoolchildren, and livestock. In these areas, road safety infrastructure is often lacking, and road users may not be accustomed to sharing space with larger vehicles. The risk of accidents involving community members is heightened, especially if drivers are unfamiliar with the local terrain or do not observe appropriate speed limits. An incident involving injury or death could significantly damage the social licence to operate and create long-term distrust.

Mitigation Measures:

- Utilise existing access roads wherever feasible to limit new surface disturbance.
- Train all drivers on local road safety protocols and cultural sensitivities.
- Erect signage warning of vehicle activity and establish speed limits within villages.
- Schedule deliveries outside peak pedestrian movement hours, particularly school travel times.

15.1.4 Community Expectations and Mistrust

The visible establishment of prospecting infrastructure can raise unrealistic expectations among local residents regarding employment, development, or permanent mining benefits. In many rural communities, any visible activity by external actors is interpreted as a precursor to large-scale projects, and the absence of clear, consistent information can lead to speculation and mistrust. This is particularly problematic where previous resource-related projects have failed to deliver tangible benefits or where consultation processes have historically excluded ordinary community members. Misalignment between community expectations and project realities may result in reputational damage, local resistance, or gatekeeping by elites who claim to “speak for the people.”

Mitigation Measures:

- Distribute plain-language information materials detailing project scope and timelines.
- Hold frequent in-person meetings with inclusive representation (traditional leaders, women, youth).
- Ensure that local communicators are employed to engage communities in isiZulu and within their cultural context.
- Emphasise the difference between prospecting and mining in all engagement platforms.

15.2 Operational Phase Impacts

15.2.1 Short-Term Employment Opportunities

The operational phase involves the active drilling of boreholes and sample analysis, which will require a small number of temporary labourers. While employment needs may be limited, even short-term opportunities can have significant positive impacts in high-unemployment areas such as those found in Abaqulusi. Income earned from such positions is often redistributed across households and can contribute to improved nutrition, school attendance, or reduced reliance on social grants. However, the perception of benefit may be undermined if recruitment appears biased or if job allocations favour certain groups or villages over others.

Mitigation Measures:

- Develop and disclose transparent recruitment criteria in collaboration with community structures.
- Publicly post job advertisements in each affected village.
- Prioritise youth, women, and vulnerable individuals who meet basic job requirements.
- Require all contractors and subcontractors to report monthly on local hiring statistics.

15.2.2 Skills Development and Capacity Building

While the skills transfer during prospecting is typically limited, the project presents an opportunity to expose local labourers to basic health and safety standards, logistical support roles, and technical aspects of exploration. For some, this may serve as a stepping stone to other employment opportunities or further training. Skills gained, even at entry-level, are particularly valuable in rural areas where formal work experience is rare.

Mitigation Measures:

- Offer induction training covering safety, environmental awareness, and workplace conduct.
- Document skills acquired and provide participants with reference letters.
- Encourage mentorship arrangements where experienced staff coach local hires.

15.2.3 Noise, Dust and Environmental Disturbance

As drilling progresses, the use of rotary core rigs and associated vehicular movement will create ongoing levels of noise and dust. This may cause discomfort for residents living close to borehole locations or along access roads. Repeated exposure could lead to frustration or negative health effects, particularly for individuals with respiratory conditions or young children. Additionally, disturbances may affect livestock behaviour, particularly where grazing occurs near the drill sites.

Mitigation Measures:

- Maintain a minimum buffer zone of 100 m from homesteads or community infrastructure.
- Implement real-time dust suppression measures (e.g., frequent watering of roads).
- Monitor ambient noise levels and suspend operations during traditional ceremonies or significant community events.

15.2.4 Risk to Cultural or Heritage Resources

The area is under traditional governance and may include sacred or ancestral sites not formally registered. Drilling without due regard could damage these resources or offend local beliefs.

Mitigation Measures:

- Conduct a pre-activity cultural heritage screening with traditional leaders.
- Avoid all identified sacred or burial sites.
- Engage a heritage specialist where uncertainty exists.

15.2.5 Restricted Access to Land and Resources

Drilling zones may be fenced off or demarcated, thereby temporarily restricting access to land previously used for grazing, firewood collection, or traditional rituals. In communal land systems, such restrictions are perceived not just as economic disruptions but as cultural infringements. Women and elderly community members—who often rely most on these land-based resources—may be disproportionately affected.

Mitigation Measures:

- Map cultural and subsistence resource zones prior to finalising borehole placement.
- Ensure continued access to critical routes or compensate for temporary restrictions.
- Consult community members regarding any fencing or security measures that might impact mobility.

15.2.6 Perceived Inequities and Social Division

Where benefits—be they jobs, tenders, or information—are seen to accrue disproportionately to certain households or traditional leaders, the project may exacerbate existing social divisions. This risk is amplified in contexts where there are historic grievances over land allocation, political factionalism, or disputes over traditional authority.

Mitigation Measures:

- Ensure rotational access to opportunities across all affected villages and wards.
- Host quarterly feedback sessions open to all community members.
- Establish an independent local monitoring committee to oversee fairness in benefit-sharing.

15.3 Decommissioning Phase Impacts

15.3.1 Loss of Jobs and Income Streams

At the end of the prospecting phase, the withdrawal of equipment and demobilisation of staff will result in job losses and the cessation of any secondary economic activities that emerged, such as informal catering, equipment rentals, or transportation services. This may leave workers and vendors with a sense of economic abandonment, especially if no other local opportunities are forthcoming.

Mitigation Measures:

- Provide clear communication about project timelines and end dates.
- Issue formal reference letters and training certificates to local workers.

- Explore partnerships with local development initiatives to support job-seekers post-project.

15.3.2 Impact on Informal Economic Activities

Temporary traders, food vendors, or informal businesses that developed during the operational phase may lose clientele and income when the project winds down. In areas with limited market access, such businesses often represent a crucial lifeline for women and unemployed youth.

Mitigation Measures:

- Support informal vendors through financial literacy training and networking with local cooperatives.
- Offer small exit grants or starter kits for top-performing micro-entrepreneurs.
- Document local service providers for consideration in future project phases.

15.3.3 Rehabilitation and Restoration of Land

The project's ability to return the land to its pre-disturbance condition will shape how the community perceives the integrity of Niara Minerals. Poor rehabilitation can lead to erosion, loss of grazing productivity, or residual safety hazards.

Mitigation Measures:

- Reseed disturbed areas with native vegetation.
- Seal and cap all boreholes to prevent contamination or accidents.
- Invite community representatives to participate in final site inspections.

15.3.4 Trust and Relationship Legacy

How the company exits the community will influence its social licence to operate in any future exploration or mining applications. If exit processes are poorly handled or if outstanding grievances are not addressed, mistrust may linger for years.

Mitigation Measures:

- Hold formal project closure ceremonies with community stakeholders.
- Provide communities with a plain-language closure report.
- Maintain a point of contact (e.g., Community Liaison Officer) for six months post-closure.

15.4 Summary of Impact Ratings

This Sub-section presents the assessment and significance rating of potential socio-economic impacts associated with the proposed prospecting activities. The aim of this evaluation is to systematically assess the nature, magnitude, extent, duration, and likelihood of potential social impacts across the different phases of the project, construction, operational, and decommissioning.

Each identified impact has been evaluated using a structured impact significance methodology aligned with the requirements of the Environmental Impact Assessment (EIA) Regulations and international best practice. This approach enables both qualitative and quantitative interpretation of impacts, providing a transparent and defensible basis for decision-making and environmental authorisation.

The evaluation follows a five-criteria matrix:

- Nature (positive, negative, or neutral),
- Magnitude (from minor to very high),
- Extent (from site-specific to international),
- Duration (from immediate to permanent), and
- Probability (from improbable to definite).
- The significance of each impact is calculated using the following formula:
- $\text{Significance} = (\text{Magnitude} + \text{Duration} + \text{Extent}) \times \text{Probability}$

Each impact is rated both before and after mitigation, highlighting the effectiveness of proposed management measures in reducing or enhancing the significance of project-related social changes. Impacts are then categorised as Low (0–30 points), Medium (31–60 points), or High (61–100 points) based on their calculated score.

The table below summarises the outcomes of this assessment, providing a concise overview of the key social impacts, their relative significance, and the role of mitigation in addressing potential risks or opportunities.

Table 15-1: Summary of Social Impact Ratings for the Isihlengi Prospecting Project

#	Impact Description	Project Phase	Nature	Pre-Mitigation SP	Significance	Post-Mitigation SP	Significance
1	Temporary disruption of land use	Construction	Negative	40	Medium	10	Low
2	Dust and noise nuisance	Construction	Negative	32	Medium	10	Low
3	Increased vehicle movement	Construction	Negative	32	Medium	10	Low
4	Community expectations	Construction	Negative	33	Medium	14	Low
5	Employment opportunities	Operational	Positive	24	Low	40	Medium
6	Skills transfer	Operational	Positive	10	Low	24	Low
7	Access restrictions to communal resources	Operational	Negative	30	Medium	10	Low
8	Perceived inequities	Operational	Negative	33	Medium	14	Low
9	Local job losses post-closure	Decommissioning	Negative	24	Low	8	Low
10	Disruption of informal economic activity	Decommissioning	Negative	24	Low	8	Low
11	Site rehabilitation benefit	Decommissioning	Positive	27	Low	44	Medium
12	Long-term community perception issues	Decommissioning	Negative	33	Medium	14	Low

- ****Notes:** All negative impacts are rated as Medium or Low and can be managed effectively with appropriate mitigation.
- Post-mitigation ratings show a reduction in significance for all adverse impacts.

- Positive impacts are moderate in scale and can be enhanced through inclusive hiring, training, and procurement processes.

Long-term perception issues and access restrictions are key risks to monitor throughout all phases.

15.5 Cumulative Impacts

Cumulative social impacts refer to the combined, incremental effects of the proposed Isihlengeni Prospecting Project when assessed in the context of past, present, and reasonably foreseeable future developments in the same geographic and socio-economic area. Unlike project-specific impacts that are often short-lived or contained within a defined footprint, cumulative impacts manifest over time and across spatial scales, interacting with other activities, stressors, or changes in the landscape. This chapter evaluates the cumulative social implications of introducing another mineral prospecting activity into a region already grappling with a complex legacy of extractive development, socio-economic inequality, and fragile community trust.

15.5.1 Landscape of Mineral Exploration and Development

The proposed project is located within the Abaqulusi Local Municipality, an area historically characterised by intermittent resource exploration and, more recently, a growing interest in coal and other mineral exploitation. While mining activity is not yet extensive in this part of northern KwaZulu-Natal, several prospecting rights have been granted over the last decade. In most cases, these projects have either not progressed to mining or have stalled due to regulatory or community resistance. However, their cumulative footprint, socially and politically, has already left a mark.

Communities such as Ngentenstheni, Steirland, Sihlengeni, and Bandlabathwa have become increasingly aware of the pattern wherein prospecting rights are perceived as harbingers of large-scale mining. Even where no tangible development materialises, the repeated arrival of companies seeking access to communal land has introduced a sense of fatigue, wariness, and sometimes conflict within and between villages. This creates a challenging environment for any new entrant, regardless of scale or intent.

If viewed in isolation, the Isihlengeni project is unlikely to generate major disruption. However, its introduction into an already sensitised social landscape must be handled with exceptional care. The cumulative psychological and social toll of repeated, sometimes opaque, engagements from external actors, including exploration companies, consultants, and state representatives, has eroded community trust and created a narrative of exclusion, where promises are made but benefits seldom delivered.

15.5.2 Land Pressure and Traditional Governance Tensions

Land in the project area is held under communal tenure, administered by traditional leaders on behalf of the state. However, this system is under pressure, with overlapping claims, growing populations, and an evolving legislative environment leading to contestation over who has the right to authorise access, negotiate with outsiders, or distribute benefits.

The cumulative effect of repeated land access requests by prospecting companies has contributed to the weakening of local social cohesion. In some cases, elites have been accused of entering into agreements without community consent, while in others, companies have allegedly failed to follow customary channels, causing friction with tribal authorities. The Isihlengeni Project must navigate this complex web, being cognisant that even a well-meaning engagement process can inadvertently aggravate existing fault lines if not handled with sensitivity and transparency.

Furthermore, repeated disruptions, even if temporary, can accumulate into longer-term shifts in land use patterns. Community members have shared concerns about the creeping reduction of accessible grazing land, blocked cattle paths, and altered mobility due to project-related fencing or vehicle movement. While each individual project may disturb only a small portion of land, the collective effect across multiple prospecting sites may lead to perceived or real encroachment on communal territory, particularly as land remains the backbone of rural livelihoods.

15.5.3 Cumulative Expectations and Social Fatigue

A less visible but equally potent cumulative effect is the entrenchment of unrealistic community expectations and the resultant disappointment when these are not met. Many rural residents have experienced multiple rounds of engagement, site visits, and baseline studies, each raising hope for jobs, development, or compensation. When these do not materialise, frustration sets in. This creates a “development fatigue,” where communities grow tired of being consulted, especially when outcomes are not clear or tangible.

The Isihlengeni Project enters this environment at a moment when trust must be rebuilt, not merely maintained. Community members are increasingly discerning and are no longer satisfied with generic promises or procedural compliance. Their questions are sharper, their memories of past engagements longer, and their tolerance for exclusion shorter. This is not an inherently negative development, it reflects an increasingly empowered citizenry, but it does require that project proponents move beyond transactional approaches to consultation and instead invest in authentic relationship-building and transparent communication.

15.5.4 Strain on Local Governance and Institutions

Cumulative engagements from multiple prospecting rights holders have placed strain on local governance structures. Traditional leaders, ward councillors, and community development forums are often called upon to mediate access, adjudicate disputes, or distribute limited benefits. However, these institutions are seldom adequately resourced to perform such roles effectively. As a result, community members begin to question their legitimacy, and accusations of gatekeeping, corruption, or favouritism may arise.

The Isihlengeni Project must be aware that its entry into this system will not be viewed as neutral. Even the selection of meeting venues, the language used in notices, or who sits at the negotiation table can reinforce or challenge existing power dynamics. In this context, cumulative impact is not just about what the project does but also how it does it, and whether it contributes to institutional strengthening or inadvertently worsens fragmentation.

15.5.5 Socio-Environmental Overlaps and Livelihood Fragility

Cumulative impacts are not confined to the social sphere alone. The slow, layered disruption of ecological systems due to multiple overlapping exploration activities also has social consequences. For example, repeated clearing of vegetation, temporary restriction of access to grazing zones, and road dust can collectively degrade the natural resource base upon which rural communities depend. This is especially critical in areas where households rely on firewood for energy, natural pastures for cattle, and wild resources for traditional medicine or supplementary nutrition.

If unchecked, such degradation contributes to what can be termed “livelihood fragility”, a state in which the coping capacity of rural households is eroded, making them more vulnerable to shocks, less resilient, and more likely to resist future development projects, regardless of their merit.

15.5.6 Recommendations for Managing Cumulative Social Risk

Given the above, it is clear that the cumulative social risk in the project area is not hypothetical—it is real, emergent, and deeply embedded in lived community experiences. To manage these risks, the following actions are recommended:

- Participate in Shared Governance Platforms: Niara Minerals should collaborate with other prospecting rights holders and local authorities to create a shared forum for managing access, expectations, and communication across the region.

- **Support Customary Institutions Without Undermining Them:** Work with traditional leaders respectfully, but also ensure that wider community voices (women, youth, informal leaders) are meaningfully included.
- **Conduct a Cumulative Impact Dialogue:** Host a multi-village, multi-stakeholder workshop early in the project to acknowledge existing grievances, share the project's limited scope, and hear cumulative concerns directly from communities.
- **Coordinate on Land Use Planning:** Align borehole siting and access road planning with other prospecting and municipal land use frameworks to prevent unnecessary overlap or clustering of disturbance.
- **Establish a Cumulative Impact Monitoring Framework:** Include cumulative social indicators (trust levels, social cohesion, land access perception) in ongoing monitoring, and share results with communities regularly.
- **Create an Exit Strategy with Legacy Value:** Even if the project does not proceed to mining, it should leave behind a positive social legacy, be it in the form of trained youth, improved access roads, or strengthened local organisations.

The Isihlengeni Prospecting Project may appear modest in isolation, but it is part of a broader mosaic of extractive interests and historical tensions that colour every engagement in the area. As social specialists, we must caution against underestimating these dynamics. The cumulative social impact of this project will be shaped less by its technical footprint and more by the sincerity, transparency, and humility with which it engages the people of Abaqulusi. If done well, it can help reset relationships and rebuild trust. If done poorly, it may simply become another mark in a long chain of unfulfilled expectations.

16 Conclusions and Recommendations

The SIA conducted for the proposed prospecting activities by Niara Minerals (Pty) Ltd in the Abaqulusi Local Municipality, KwaZulu-Natal, has evaluated the potential socio-economic risks and opportunities that may arise during the project's lifecycle. This assessment was carried out in line with the requirements of the NEMA, the MPRDA, and relevant EIA Regulations, as well as informed by international best practices, particularly the IFC Performance Standards.

The findings indicate that the scale and intensity of the proposed prospecting activities are relatively low, given the temporary nature of the work and the small footprint involved (~15 hectares). No permanent infrastructure will be constructed, and physical displacement is not anticipated. Nevertheless, the project will intersect with communal land, customary tenure systems, and livelihood activities, including grazing, subsistence agriculture, and culturally significant land use. These interactions create real and perceived risks for communities that are historically and economically marginalised.

Key social impacts identified include temporary disruption to land access, dust and noise nuisance, increased vehicle traffic, and short-term employment expectations. Cumulative impacts, when viewed in the broader context of other prospecting and mining applications in the region, present a longer-term concern regarding pressure on land resources, community trust, and governance structures. Importantly, while some short-term economic opportunities may be generated, they are modest and will require deliberate and equitable local benefit-sharing to contribute meaningfully to community wellbeing.

Consultations with community stakeholders—though constrained by time and logistical considerations—revealed both scepticism and cautious optimism. Communities are willing to consider the potential benefits of resource development but have emphasised the need for transparency, early and inclusive engagement, and respect for local authority structures. It is clear that a proactive, culturally sensitive communication approach will be essential for sustaining trust and securing a future social licence to operate.

Based on the overall impact rating, most negative impacts can be reduced to a low or medium significance level with the implementation of the mitigation measures outlined in this report. The project is therefore socially feasible, provided that:

Engagement with affected communities continues beyond the application stage;

Commitments made are realistic, inclusive, and verifiable;

Land access is negotiated respectfully and transparently with appropriate parties;

Monitoring and grievance mechanisms are implemented early, and

Environmental and social risks are actively managed.

In conclusion, the SIA recommends that the project be allowed to proceed, subject to strict adherence to the proposed environmental and social management measures, ongoing stakeholder engagement, and the integration of social performance into all aspects of the project lifecycle. If managed responsibly, the prospecting activities can be a first step toward more inclusive and sustainable resource development in the Abaqulusi region.

16.1.1 Recommendations:

- **Strengthen Public Participation:** Ensure ongoing, inclusive engagement with local communities, traditional leaders, and municipal representatives to foster understanding, trust, and transparency.
- **Manage Expectations:** Clearly communicate the temporary and exploratory nature of the project to avoid unrealistic expectations around long-term employment or development.

- **Implement Mitigation Measures:** Adopt and monitor all proposed mitigation strategies related to dust, noise, land access, and safety, as outlined in the EMPr.
- **Promote Local Benefits:** Prioritise local hiring, procurement of local services, and where feasible, provide basic training or development opportunities for local workers.
- **Ensure Compliance and Accountability:** Maintain strict adherence to environmental and social requirements under the MPRDA, NEMA, and other relevant laws, and address grievances promptly through an accessible mechanism.

With these recommendations in place, the project can proceed with minimal disruption and the potential to contribute positively, albeit modestly, to local socio-economic development.

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NIA02

Social Impact Assessment Report for the Proposed Prospecting Right
Application in Isihlengeni, near Vryheid, KwaZulu-Natal

Appendix A: Specialist CV



Nolwazi Lomalangeni Dlamini

Jnr Environmental Consultant
Registered EAP No. 2022/5249

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EDUCATION AND

QUALIFICATIONS

- BSocSc. (Geography and Environmental Management) University of KwaZulu Natal (2020)
- BSc. Hons. (Geography) University of Witwatersrand (2021)

AFFILIATIONS

- Environmental Assessment Practitioners Association of South Africa (EAPASA)

YEARS OF EXPERIENCE

- 2 Years

KEY COMPETENCIES

- Project Management
- Legal Compliance Audits: Environmental / Health & Safety
- Environmental Control Officer
- Performance Assessments (Environmental Audits) on mine EMPs
- Compliance Audits on Environmental Authorisations (e.g., ROD's, Water, Air and Waste Licenses)

BIOGRAPHY

Nolwazi Dlamini is an environmental professional who has more than three (3) years of experience working in the Environmental Management field. She currently holds the title of junior environmental consultant at Niara Environmental Consultants (Pty) Ltd . She has more than two (2) year working as an Environmental Assessment Practitioner (EAP) in the mining sector where she has performed numerous environmental assessments (Environmental audits, financial provision & WML applications), Water Use Licence Application (WULA) as well as Basic assessment reports (BAR), Scoping and Environmental impact assessment(S&EIA) and Environmental management programmes (EMPr). One (1) year working as an Environmental Consultant in the petroleum industry where she worked under a Air quality specialist and was responsible for environmental compliance monitoring for Engen depots and Retail sites (EA & EMP); Retail & commercial site EIA gap closure monitoring; Air emission (AEL) & water use License (WUL) compliance as well as preparing internal environmental procedures (Air emission, waste, environmental safety).She is a seasoned Environmental Assessment Practitioner with a thorough understanding of the potential environmental and social impacts of activities in a variety of environmental settings. Her core competencies include research and report writing, specialist report review and environmental impact assessments

EMPLOYMENT HISTORY

July 2024 – present: Jnr Environmental Consultant, Temvelo Consultants

May 2023 – May 2024: Petroleum & Environmental Consultant, Vahlengwe Mining Advisory and Consulting, South Africa

December 2021 – December 2022: Environmental intern, Engen Petroleum, South Africa

EXPERIENCE HIGHLIGHTS



- Consolidated Compliance Programmes
- Environmental Impact Assessments
- Basic Assessment Reports
- Mineral Law -Mining Rights and Permits
- Environmental Authorisation Applications
- Water Use License Applications
- Waste Management License Applications
- Co-ordinating and conducting Public Involvement processes.
- Social Assessment (Stakeholder and Social Analysis)
- Public Participation Process and Stakeholder consultation and mediation
- GIS

COUNTRIES OF WORK EXPERIENCE

- South Africa

LANGUAGES

- English (excellent)
- Sesotho (intermediate)
- siSwati (excellent)
- isiZulu (excellent)

The below highlight key recent and relative project experience:

- BAR & EMPr, S102 Amendment application for Phalabora Mining company (Pty) Ltd
- BAR & EMPr, S102 Amendment application for Mbali Coal (Pty) Ltd
- Social & Labour plan (SLP) for Mbali Coal (Pty) Ltd
- Environmental compliance monitoring & Financial provision for Mbali Coal (Pty) Ltd
- BAR & EMPr, prospecting right application for Africa Gulf International mining (Pty) Ltd
- Community Health Impact Assessment (cHIA) for Minetek Resources (Pty) Ltd
- Social & Labour plan (SLP) for Izazi Mining (Pty) Ltd
- Social & Labour plan (SLP) for Saldomate Resources (Pty) Ltd
- Social & Labour plan (SLP) for Mmambithi Mining (Pty) Ltd
- BAR & EMPr, Section 102 for application for Ngobeni family Trust
- Scoping and EIA , Prospecting Right application for Gomeza Trading (PTY) Ltd
- BAR & EMPR, Waste Management licence for Mona Le Mane (Pty) Ltd
- BAR & EMPr, Prospecting Right application for Podlet (Pty) Ltd
- Environmental compliance monitoring & Financial provision for Franco Sand and Stone (Pty) Ltd
- Environmental compliance monitoring & Financial provision for Ngwenya Mine (Pty) Ltd
- Environmental compliance monitoring & Financial provision for Analiza Boedery (Pty) Ltd
- Environmental compliance monitoring of Engen Depots (Langlaagte, Kempton Park, Witbank)

Please consult the attached appendix for a comprehensive list detailing the project experiences undertaken.



APPENDIX A: PROJECT EXPERIENCE

Duration	Assignment name / brief description of main deliverables/outputs	Name of client and country of assignment	Role on the assignment
2025	BAR & EMPr for prospecting right application on various farms, near Sihlengeni, Kwa-Zulu Natal	Niara Minerals (Pty) Ltd	Project lead & Report Compiler
2025	BAR & EMPr, S102 Amendment application for Proposed Dry Magnetic Separation Plant and Converter Stack Demolition	Palabora Mining Company (Pty) Ltd	Project lead & Report Compiler
2025	BAR & EMPr, S102 Amendment application for the Expansion of The Open-Pit Perimeter to Access Additional High Grade Vermiculite Reserves	Palabora Mining Company (Pty) Ltd	Project lead & Report Compiler
2025	BAR & EMPr, S102 Amendment application for the inclusion of Portions 4 and 28 of Klippoortjie 32 IS	Mbali Coal (Pty) Ltd	Project lead & Report Compiler
2025	Social & Labour plan (SLP)	Mbali Coal (Pty) Ltd	Project lead & Report Compiler
2025	Social & Labour plan (SLP)	Izazi Mine (Pty) Ltd	Project lead & Report Compiler
2025	Social & Labour plan (SLP)	Saldomate Colliery (Pty) Ltd	Project lead & Report Compiler
2024	BAR & EMPr for Prospecting Right Applications on Various Farms, near Klerksdorp, North West Province	Africa Gulf International mining (Pty) Ltd	Project assistant
2024	Community Health Impact Assessment (cHIA) for proposed Newcastle coal Mine	Minetek Resources (Pty) Ltd	Project lead & Report Compiler
2024	Social & Labour plan (SLP)	Izazi Mining (Pty) Ltd	Project lead & Report Compiler



2024	BAR & EMPR for Klipspruit Colliery's Proposed Unwabu Project - Pit BD and Pit H Underground Mining Expansion Project	Seriti power (pty) Ltd	Project assistant & report compiler
2024 - present	Monthly Dustfallout Monitoring	Mbali Colal (Pty) Ltd	Project lead & Report Compiler
2024	BAR & EMPr, Regulation 31 amendment for Harmony :Doornkop	Harmony :Doornkop	Project assistant & report compiler
2024	BAR & EMPr , Section 102 application for Ngobeni family Trust	Ngobeni family trust	Project assistant & Report reviewer
2024	Environmental compliance monitoring & Financial provision for Insite trading (Pty) Ltd	Insite trading (Pty) Ltd	Auditor & Report compiler
2024	Scoping and EIA , Prospecting Right application for Gomeza Trading (PTY) Ltd	Gomeza Trading (PTY) Ltd	Project lead & Report Compiler
2024	BAR & EMPR, Waste Management licence for Mona Le Mane (Pty) Ltd	Mona Le Mane (Pty) Ltd	Project lead & Report Compiler
2024	BAR & Empr, Prospecting Right application for Podlet (Pty) Ltd	Podlet (Pty) Ltd	Project lead & Report Compiler
2023	Environmental compliance monitoring & Financial provision for Ngwenya mine (Pty) Ltd	Ngwenya mine (Pty) Ltd	Auditor & Report compiler
2023	Environmental compliance monitoring & Financial provision for Franco Sand and Stone (Pty) Ltd	Franco Sand and Stone (Pty) Ltd	Auditor & Report compiler
2023	Environmental compliance monitoring & Financial provision for Analiza Boedery (Pty) Ltd	Analiza Boedery (Pty) Ltd	Auditor & Report compiler

**Environmental Assessment
Practitioners Association
of South Africa**



Registration No. 2022/5249

Herewith certifies that

NOLWAZI DLAMINI

is registered as an

Candidate Environmental Assessment Practitioner

**Registered in accordance with the prescribed criteria of Regulation 15. (1)
of the Section 24H Registration Authority Regulations
(Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the
National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).**

Effective: 01 March 2025

Expires: 31 March 2026

Chairperson

Registrar

