



Socio-Economic Impact Assessment for the Ghanja Stockpile near Ndindindi, Eastern Cape Province

For

Greenmined Environmental (Pty) Ltd

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ETC has no beneficial interest in the outcome of the assessment which is capable of affecting its independence.

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I, Marvin Gabara, declare that: –

- I act as an independent specialist in this application;
- I will perform the work relating to the application objectively, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;

- 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;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken concerning the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offense and is punishable by law.



15/05/2024

Signature of the Specialist

Date

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SPECIALIST AFFIRMATION

I, Marvin Gabara, 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

15/05/2024

Date

EXECUTIVE SUMMARY

INTRODUCTION

ETC was commissioned by Greenmined Environmental (Pty) Ltd as the lead consultant to manage the Socio-Economic Impact Assessment (SEIA) process for the establishment of the proposed Ghanja Stockpile development.

This report contains the findings of the SEIA undertaken as part of the broader BA process..

APPROACH TO STUDY

These guidelines are based on international best practice. The key activities in the SEIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, and location), the settlements, and communities likely to be affected by the proposed project.
- Collecting baseline data on the current social and economic environment.
- Identifying the key potential socio-economic issues associated with the proposed project. This requires a site visit to the area and consultation with affected individuals and communities.
- Assessing and documenting the significance of socio-economic impacts associated with the proposed intervention.
- Identifying alternatives and mitigation measures.
- A site visit will be undertaken during the Assessment Phase of the SEIA. The site visit will include consultation and surveys with interested and affected parties.
- Preparation of a SEIA Report for inclusion in the BA Report to be prepared for the project..

COLLECTION AND REVIEW OF EXISTING INFORMATION

Existing desktop information that has relevance to the proposed project, project area and/or surroundings was collected and reviewed. The following information was examined as part of this process:

- Project maps and layouts.
 - Google Earth imagery.
 - A description of the project (as provided by the project proponent).
 - Responses to questions posed to the project proponent regarding employment and socio-economic upliftment and local economic development opportunities (as provided by the project proponent).
-

- Census Data (2016), and the Local Government Handbook (2019).
- Planning documentation such as Provincial Growth and Development Strategies (PGDSs), Local and District Municipality Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and development goals and objectives.
- Relevant legislation, guidelines, policies, plans, and frameworks.
- Available literature pertaining to socio-economic issues associated with the development, operations, and associated infrastructure.

The identification of potential socio-economic issues associated with the proposed Ghanja Stockpile is based on primary and secondary information about the area and visits to the relevant communities by field workers/members of the SEIA study team.

KEY FINDINGS

From a socio-economic perspective it is concluded that the project is supported, but that mitigation measures should be implemented and adhered to. Positive and negative socio-economic impacts have been identified. The assessment of the key issues indicated that there are no negative impacts that can be classified as fatal flaws, and which are of such significance that it cannot be successfully mitigated. Positive impacts could be enhanced by implementing appropriate enhancement measures and through careful planning. Based on the socio-economic assessment, the following general conclusions and findings can be made:

- The assessment of the key issues indicated that there are no fatal flaws, associated with the Ghanja Stockpile project.
- Positive impacts could be enhanced by implementing appropriate enhancement measures and through careful planning.
- The potential negative social impacts associated with the construction phase are typical of construction related projects and not just focused on the construction of the Stockpile and could be reduced with the implementation of the mitigation measures proposed.
- The project is anticipated to generate employment opportunities, predominantly sourced from the nearby communities. This positive socio-economic impact contributes to local economic stimulation and provides a platform for skills development.
- Careful planning, effective communication, and the implementation of appropriate mitigation measures are key to ensuring the project's positive contribution to the local community and broader region.

CONCLUSIONS

The Ghanja Stockpile project represents a import development for the Eastern Cape, particularly within the Ingquza Hill Local Municipality, showcasing a balanced approach to

economic development and environmental management. This initiative is positioned to play a crucial role in the socio-economic advancement of the region by providing substantial employment opportunities, stimulating local economic activity, and enhancing infrastructure development.

As this SEIA has detailed, the project is poised to offer a potential boost to the local economy by creating direct and indirect job opportunities, predominantly sourced from nearby communities. This is particularly vital in an area characterized by high unemployment and economic underdevelopment. The initiative can revitalize the local economy but also aims to instil a sustainable development model that can be replicated in similar contexts across the country.

Furthermore, the project is aligned with national policies that support sustainable mining practices and economic empowerment, ensuring that its implementation partially contributes to broader developmental goals. The strategic location of the project and its integration with local socio-economic structures are designed to optimise both environmental sustainability and economic viability.

However, the realisation of these benefits is contingent upon the project's adherence to rigorous environmental standards and its ability to effectively implement the recommended mitigation measures. Effective stakeholder engagement and transparency in operations are essential to foster community support and ensure the long-term success of the project. This engagement includes addressing any concerns related to environmental impacts, such as noise, dust, and traffic, which are common challenges in construction and mining projects.

Based on the findings of this report, the development of the Ghanja Stockpile project is supported, provided that the recommended mitigation measures are implemented. Effective stakeholder engagement, transparency, and responsiveness to community concerns are crucial to maintaining public trust and acceptance of the project.

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LIST OF ABBREVIATIONS

Abbreviation	Description
AfDB	African Development Bank
BAR	Basic Assessment Report
BESS	Battery Energy Storage System

Abbreviation	Description
DFFE	Department of Forestry, Fisheries and Environment
EA	Environmental Authorisation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
ETC	Eco Thunder Consulting (Pty) Ltd
Greenmined	Greenmined Environmental (Pty) Ltd
GIS	Geographical Information Systems
HA	Hectares
IFC	International Finance Corporation
MW	Megawatts
NEMA	National Environmental Management Act
UNESCO	United Nations Educational, Scientific and Cultural Organisation
OHL	Overhead Line
O&M	Operation and Maintenance
PV	Photovoltaic
REDz	Renewable Energy Development Zone/s
SACLAP	South African Council for the Landscape Architectural Profession
SEIA	Socio-Economic Impact Assessment
VAC	Visual Absorption Capacity

SPECIALIST CHECKLIST

No.	NEMA 2014 (as amended) Regs - Appendix 6(1) Requirement	Report Section
	A specialist report prepared in terms of these Regulations must contain—	
a	details of— <ul style="list-style-type: none"> • the specialist who prepared the report; and • the expertise of that specialist to compile a specialist report including a curriculum vitae. 	Specialist Details Appendix B
b	a declaration that the specialist is independent in a form as may be specified by the competent authority;	Specialist Declaration
c	an indication of the scope of, and the purpose for which, the report was prepared;	Section 4.1
	an indication of the quality and age of base data used for the specialist report	Section 1.3 Section 4.2.1
	a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change	Section 8.1
d	the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	Section 4.2.3
e	a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 4
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 alternative;	Section 6.2
g	an identification of any areas to be avoided, including buffers;	Section 8.3
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;	Section 6.2 Table 7

No.	NEMA 2014 (as amended) Regs - Appendix 6(1) Requirement	Report Section
i	a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 1.4
j	a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 10.1
k	any mitigation measures for inclusion in the EMPr;	Section 8
l	any conditions for inclusion in the environmental authorisation;	Section 7.1
m	any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 8
n	<p>a reasoned opinion—</p> <ul style="list-style-type: none"> • whether the proposed activity, activities or portions thereof should be authorised. • regarding the acceptability of the proposed activity or activities; and • 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 EMPr, and where applicable, the closure plan. 	Section 9.2
o	a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 4.2
p	a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Appendix A
q	any other information requested by the competent authority.	N/A

1 Background

ETC was commissioned by Greenmined Environmental (Pty) Ltd as the lead consultant to manage the Socio-Economic Impact Assessment (SEIA) process for the establishment of the proposed Ghanja Stockpile development.

This report contains the findings of the SEIA undertaken as part of the broader BA process.

1.1 Terms of Reference

A specialist study is required to establish the socio-economic baseline and to identify and potential socio-economic impacts arising from the proposed development based on the general requirements for a comprehensive SEIA.

The following terms of reference were established:

- **Baseline Study:** Conduct a socio-economic baseline study to understand the current conditions in the project area.
- **Stakeholder Engagement:** Identify and engage with key stakeholders to understand their views and concerns related to the project.
- **Impact Assessment:** Identify and assess potential socio-economic impacts, both positive and negative, arising from the project.
- **Mitigation and Enhancement:** Develop measures to mitigate negative impacts and strategies to enhance positive impacts.
- **Monitoring Plan:** Develop a plan to track the implementation of measures and monitor actual socio-economic impacts post-project.
- **Compliance:** Ensure the SEIA complies with relevant legislation, guidelines, and best practices.
- **Reporting:** Prepare a comprehensive, clear, and concise SEIA report suitable for submission to relevant authorities.

1.1.1 Objectives of Study

This SEIA Report has been prepared as part of the BA process being undertaken for Ghanja Stockpile and associated infrastructure. The purpose of this SEIA Report is to provide details on the nature and extent of development and the potential socio-economic impacts associated with the construction, operation, and decommissioning of the project. The inputs contained within this SEIA Report are intended to provide a high-level overview of the socio-economic environment within which the project is proposed and identify potential socio-economic issues which will be addressed in detail as part of the BA process specialist investigations.

The objective of this SEIA Report is therefore to:

- Identify and review policies and legislation which may have relevance to the activity from a socio-economic perspective.
- Provide comment on the need and desirability of the proposed activity from a socio-economic perspective.
- Identify potential impacts and risks associated with the preferred activity and technology alternatives.
- Identify key socio-economic issues to be addressed in the BA phase.
- Agree on the level of assessment to be undertaken, including the methodology to be applied to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site.
- Identify suitable measures to avoid, manage or mitigate identified socio-economic impacts and determine the extent of residual risks that need to be managed and monitored.

1.2 Structure of the Report

The report is organised into nine sections:

- Section 1: Background
- Section 2: Project Description
- Section 3: Legislation and Policy Review
- Section 4: Approach and Methodology
- Section 5: Socio-Economic Profile
- Section 6: Key Socio-Economic Impacts
- Section 7: Impacts and Assessment
- Section 8: Monitoring and Compliance (EMPr)
- Section 9: Environmental Impact Statement
- Section 10: References

1.3 Information Base

The following information was used to conduct the SEIA:

- Documentation and KML files supplied by the client;
- Terms of Reference (ToR) for the socio-economic specialist;
- Photographs, interviews, and information captured during the site visit;
- Google Earth software and data (aerial imagery - 2018);
- Sentinel-2 Satellite Imagery (2018);
- SRTM Digital Elevation Model;
- Census data and other socio-economic statistics;
- Stakeholder engagement records and feedback;
- Relevant legislation, guidelines, and best practices for socio-economic impact assessment.

1.4 Limitations and Assumptions

The following assumptions and limitations are applicable to this SEIA Report:

- It was assumed that information provided by Henred Trading (Pty) Ltd and Greenmined Environmental team was accurate and that the technical specifications of the Project and site selection are in accordance with the relevant requirements.
- The assessment has been based on the requirements of the Department of Environmental Affairs and Development Planning, Western Cape Province Guidelines for involving Social Assessment Specialists in EIA Processes¹.
- The assessment assumes that all necessary consultations with stakeholders, including local communities, authorities, and other interested parties, have been/will be conducted in accordance with legal requirements, and that their views and concerns have been duly considered.
- Whilst most homesteads and housing areas were visited during the site visit in order to confirm their nature and likely socio-economic of the development, it was not possible to visit all homesteads and housing areas.
- The Project report uses the concept of 'worst case scenario' to identify issues and rate socio-economic impacts.

¹ These guidelines are based on international best practice and are applicable to all provinces within South Africa.

- Regulation 11(3) of the EIA Regulations, which suggests that if more than one activity is part of the same development, a single application may be required, discourages the practice of splitting components or assessing them in isolation, thereby promoting a unified and integrated approach to cumulative impact assessment.
- This report and assessment are dependent on the accuracy of the publicly available secondary information such as Statistics South Africa (Stats SA, 2022).
- This SEIA Report was prepared based on information that was available to the specialist at the time of preparing the report. The sources consulted are not exhaustive, and the possibility exists that additional information which might strengthen arguments, contradict information in this report, and/or identify additional information might exist.
- Some of the project projections reflected in this SEIA Report may be subject to change, and therefore may be higher or lower than those estimated by the project proponent.
- It is assumed that the motivation for the planning and feasibility study of the project were undertaken with integrity, and that information provided by the project proponent was accurate and true at the time of preparing this SEIA Report.
- The responsibility for implementing the recommendations, mitigation measures, and any other actions outlined in this report lies solely with the client or project proponent. The SEIA practitioners are not responsible for monitoring, enforcing, or ensuring compliance with these measures. It is the client's duty to ensure that all necessary permits, approvals, and consents are obtained, and that the project is carried out in accordance with all applicable laws, regulations, and standards. Any deviations from the recommendations or failure to implement the suggested measures may result in different impacts and outcomes than those described in this report.

1.5 Specialist Details

ETC is a 100% woman-owned, private company that specialises in a range of specialist studies, such as visual impact assessments, air quality impact assessments, noise impact assessments socio-economic impact assessments, socio-economic research, economic development planning, development program design and implementation as well as community trust management. Based across South Africa, Eco-Thunder has established itself as an expert on the conditions, needs and assets of communities that are linked to independent power generation facilities.

ETC has conducted research on behalf of and advised IPPs since 2017. Its client base is thus comprised of IPPs that have been successful across all the REIPPPP bidding rounds. ETC also implements development programs in energy communities, which ensures a comprehensive understanding of the how to drive positive socio-economic impact.

2 Project Description

2.1 Introduction

Henred Trading (Pty) Ltd (hereafter referred to as the applicant) applied for a mining permit (DMRE ref no: EC 30/5/1/3/2/10843 MP) to mine aggregate from a 5-ha area on a portion of Remaining Extent of Farm 89, Ingquza Hill Local Municipality,, OR Tambo District Municipality, Eastern Cape Province.

In addition to the mining permit application that will be submitted to the DMRE, the Applicant also proposes to establish an area for stockpiling and crushing (if needed) of the material that will be mined at the quarry, on 19 hectares of the abovementioned property. The establishment of the stockpiling area needs a (separate) environmental authorisation to be approved by the Eastern Cape Department of Economic Development and Environmental Affairs (DEDEA) (separate application than the DMRE one).

The infrastructure to be used on site will all be of temporary and mobile nature. Containers will be used for office and storage purposes, a weigh bridge will be established (temporary), and a dirt road of <600m will be developed from Ghanja Road to the quarry area to gain access to the mining permit area as well as the stockpile area. The storage of fuel (if any) will be below the threshold of the NEMA EIA listed activities. The proposed activity is situated within 100m from a water resource which necessitates a Water Use License Application (WULA) that must be submitted to the Department of Water and Sanitation. The proposed stockpile area, and the plant will be powered with generators. The ablution facilities will be chemical toilets that will be serviced by registered suppliers. The office and storage containers, weigh bridge and ablution facilities will most likely be placed at the entrance to the site, while the crushing equipment will be of mobile nature, moving around the site as needed.

During the site establishment phase the applicant will clear the topsoil from the stockpiling area to allow the stockpiling of the material. Upon stripping, the topsoil will be stockpiled along the boundaries of the area to be used during the rehabilitation phase. The material will then be transported from the quarry into the stockpile area where it will be screened/crushed if needed and stockpiled until removed from site.

Should this application be successful, the Applicant intends to:

- Demarcate the boundaries of the stockpile area;
- Strip the topsoil off the earmarked area and stockpile it for later use in rehabilitation;
- Stockpile the processed material (dolerite product) in various size categories within the boundaries of the approved area;
- Process the material through crushing and screening;
- Load and transport the material from the stockpiles onto trucks

Considering this, the Applicant intends to establish the following infrastructure within the boundaries of the proposed area:

- Mobile crushing and screening infrastructure;
- Mobile containers that will be used for offices and storage purposes; and
- Ablution facilities to be used by all employees.

Table 1 below provides the details of the project, including the main infrastructure components and services that will be required during the project life cycle.

Table 1: Details of the Ghanja Stockpile and Associated Infrastructure

Component	Description/Dimensions
District Municipality	O.R. Tambo District Municipality (ORTDM)
Local Municipality	Ingquza Hill Local Municipality (IHLM)
Ward Number (s)	Ward 23
Nearest Town(s)	Ndindindi (~1.5km north-west)
Farm Name(s) and Number(s) of Properties Affected by the	A portion of the remaining extent of Farm 89,
Portion Number(s) of Properties Affected by the	
SG 21 Digit Code (s)	
Current Zoning	The land in question comprises 5-ha area on a portion of Remaining Extent of Farm 89, which is currently classified as natural grasslands with sparse vegetation, cattle grazing was observed within the proposed development area.
Site Coordinates (Centre of Development Area)	31°21'0.18"S, 29°47'19.06"E

Total Extent of the Affected Properties, also Referred to as the Project Site ²	~19ha
Access Roads and Internal Roads	Existing roads will be used, wherever possible, to access the project site and development area. Access to the Stockpile area is provided via the Ghanja Rd, located to the north of the development area.

2.2 Alternatives

In the Basic Assessment for the proposed Ghanja Stockpile, consideration of alternatives is an essential step in understanding the potential impacts and benefits of the project. At present, the following alternatives were considered:

Site alternative 1

Henred Trading (Pty) Ltd (hereafter referred to as the applicant) proposes to establish an area for stockpiling and crushing/screening (if needed) of mined material, on 19.9 hectares on a portion of the Remaining Extent of Farm 89, Ingquza Hill Local Municipality, Eastern Cape Province. The proposed area (Figure 1) is over a disturbed area of the farm occasionally used for grazing. This area was recommended by the ecologist due to the area being previously disturbed.

² The project site is that identified area within which the development area and development footprint are located. It is the broader geographic area assessed as part of the BA process, within which indirect and direct effects of the project may occur. The project site is ~19ha in extent.



Figure 1: Satellite view showing the position of Site Alternative 1 (green polygon) within the surrounding landscape.

Site alternative 2

Site Alternative 2 (S2) presented in Figure 2 was also assessed by the ecologist for the proposed stockpile area due to its disturbed conditions. However, it is in Greenmined's opinion that this area is not practically suitable, as its location within the community could pose a health and safety risk.



Figure 2: Satellite view showing the position of Site Alternative 1 (purple polygon) within the surrounding landscape.

Site Alternative 3 (Initial Site)

The initial site (Figure 3) was assessed for the proposed stockpile area but was found by the ecologist to be environmentally unsuitable due to the pristine conditions of the area. Site alternative 1, was recommended by the specialist as a site alternative as this is the only area that will be viable for the applicant due to the area being previously disturbed.



Figure 3: Satellite view showing the position of Site Alternative 1 (red polygon) within the surrounding landscape.

No-go Alternative:

The no-go alternative entails no change to the *status quo* and is therefore a real alternative that needs to be considered. The aggregate to be stockpiled will be utilized for the building, road rehabilitation/maintenance and associated construction industry, if however, the no-go alternative is implemented the Applicant could not utilise the stored mineral resource on this property and the construction industry of Lusikisiki will not benefit from diversification of gravel sources which will escalating product costs.

2.2.1 No-Go Alternative

The “no-go” alternative is the option of not constructing the Ghanja Stockpile. The implementation of the proposed project is expected to result in several positive and negative socio-economic impacts. Most negative impacts identified for the project are associated with the construction phase of the project, while the positive impacts are associated with both the construction and operation phases of the project.

Potential negative social impacts associated with the construction and operation of the project include the following:

- Potential influx of job seekers and an associated change in population and increase in pressure on basic services;

- Potential safety and security impacts;
- Potential impacts on daily living and movement patterns; and
- Potential nuisance impacts (noise and dust).

Potential positive social impacts associated with the construction and operation of the project include the following:

- Potential direct and indirect employment opportunities;
- Skills development and training; and
- Potential economic multiplier effect.

The impacts of pursuing the “no-go” alternative can therefore be summarised as follows:

- The benefits would be that there is no disruption from nuisance impacts (noise and dust during construction), visual impacts and safety and security impacts. The impact is therefore neutral.
- There would also be an opportunity loss in terms of limited job creation, skills development, community upliftment and associated economic business opportunities for the local economy. This impact is considered to be negative.

The employment opportunities associated with the construction and operational phase, as well as the benefits associated with the additional funding for socio-economic and enterprise development measures and the established local ownership entity representing beneficiary communities would be forgone.

2.3 Study Objectives

The primary objective of this SEIA is to identify, evaluate, and propose mitigation measures for the potential socio-economic impacts associated with the proposed Ghanja Stockpile. The SEIA is a critical component of the comprehensive BA process, providing valuable insights into the socio-economic implications of the proposed development.

The specific objectives of the SEIA include:

- **Understanding the Socio-economic Context:** To gain a comprehensive understanding of the socio-economic environment within the project area, including demographic characteristics, economic activities, socio-economic infrastructure, and key socio-economic issues.
- **Identifying Stakeholders:** To identify key stakeholders, including local communities, government agencies, non-governmental organisations, and other relevant parties who may be affected by or have an interest in the proposed project.
- **Assessing Potential Socio-economic Impacts:** To identify and assess potential socio-economic impacts, both positive and negative, that may arise from the proposed

project. This includes impacts on employment, local economy, community health and safety, cultural heritage, and socio-economic cohesion.

- **Developing Mitigation Measures:** To propose effective and practical mitigation measures for any negative socio-economic impacts identified, and strategies to enhance positive impacts.
- **Compliance with Legislation and Guidelines:** To ensure that the SEIA is conducted in accordance with relevant legislation, guidelines, and best practices, including the principles of socio-economic sustainability and social justice.
- **Engaging with Stakeholders:** To facilitate meaningful engagement with stakeholders throughout the SEIA process, ensuring that their views and concerns are adequately considered and addressed.

The SEIA aims to provide a robust and comprehensive analysis that will inform decision-making and contribute to the sustainable development of the Ghanja Stockpile. It is committed to promoting socio-economic equity, enhancing social well-being, and ensuring that the benefits of the project are shared equitably among all stakeholders.

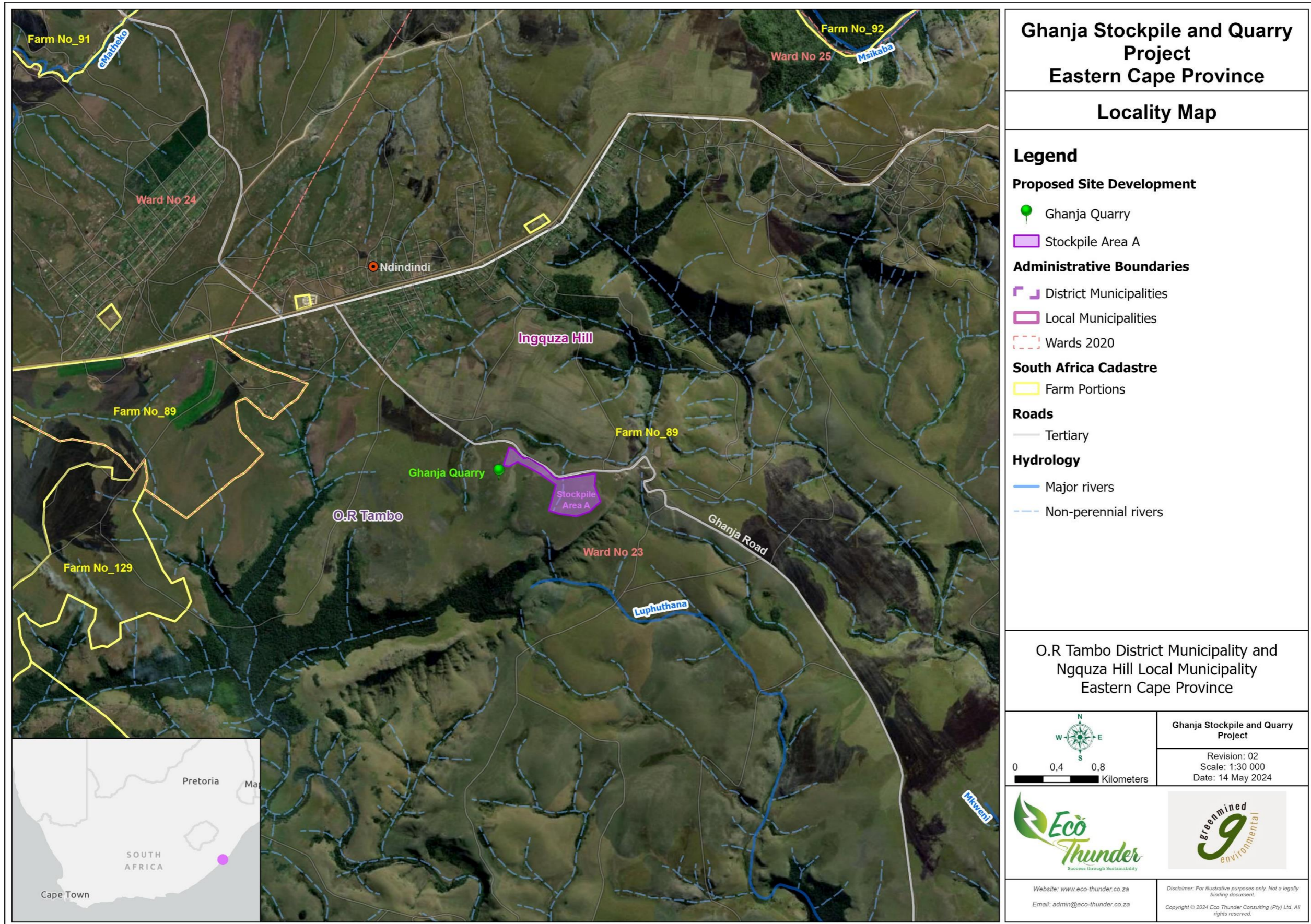


Figure 4: Locality Map Illustrating the Location of Ghanja Stockpile

3 Legislation and Policy Review

From an environmental and social standpoint, the proposed project must adhere to all applicable requirements set forth by the National Environmental Management Act, 107 of 1998 (NEMA) and its amendments, the Minerals and Petroleum Resources Development Act, 28 of 2002 (MPRDA) and its amendments, and the National Water Act, 36 of 1998 (NWA).

While current South African legislation relevant to mining and environmental protection does not specifically address Social Impact Assessments (SIAs), it does provide detailed guidelines on the scope, depth, and timelines for public participation and stakeholder engagement during the Basic Assessment (BA) and Environmental Management Plan (EMP) processes. This section outlines the key elements of national legislation pertinent to conducting a socio-economic assessment for a mining project in South Africa.

3.1 National Legislation and Guidelines

The following documentation provides national policy guidelines:

- Constitution of the Republic of South Africa, 108 of 1996;
- National Environmental Management Act, 107 of 1998 (NEMA);
- Minerals and Petroleum Resources Development Act, 28 of 2002 (MPRDA);
- South African Mining Charter, 2018
- The Department of Mineral Resources Consultation Guidelines
- Mine Health and Safety Act, 29 of 1996;
- White Paper on Local Government (1998);
- Municipal Systems Act, 32 of 2000;
- The Development Facilitation Act (DFA), 67 of 1995;
- Extension of Security of Tenure Act (ESTA), 62 of 1997;
- Restitution of Land Rights Act, 22 of 1994;
- Traditional Leadership and Governance Framework Amendment Act, 2003 and Council of Traditional Leaders Act, 1997; and

3.1.1 Constitution of the Republic of South Africa (Act 108 of 1996);

Section 24 of the South African Constitution (the Constitution) provides that everyone has the right to an environment that is not harmful to their health or well-being and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures, that –

- Prevent pollution and ecological degradation;
- Promote conservation; and
- Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

Section 25 of the Constitution provides that 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.

Aligning the Ghanja Stockpile Project with these constitutional provisions not only ensures compliance with South African law but also promotes long-term sustainability and community well-being, enhancing the project's legitimacy and support among stakeholders.

3.1.2 National Environmental Management Act, 107 of 1998 (NEMA)

This piece of legislation is South Africa's key piece of environmental legislation and sets the framework for environmental management in South Africa. NEMA is founded on the principle that everyone has the right to an environment that is not harmful to their health or well-being as contained within the Bill of Rights.

The national environmental management principles state that the Social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.

The need for responsible and informed decision-making by government on the acceptability of environmental impacts is therefore enshrined within NEMA.

By aligning the Ghanja Stockpile Project with NEMA's principles, project managers and decision-makers can ensure that the project is conducted in an environmentally responsible manner, balancing development goals with the preservation of environmental and public health.

3.1.3 Minerals and Petroleum Resources Development Act, 28 of 2002 (MPRDA)

Upon the acceptance of an application for a mining right or mining permit, the applicant is required to prepare an Environmental Management Plan (EMP) in accordance with requirements of the MPRDA, to mitigate both bio-physical and social impacts of the proposed development. The MPRDA furthermore requires that mining companies assess the social impacts of their activities from start to closure and beyond. Companies must also develop and implement a comprehensive Social and Labour Plan (SLP) in conjunction with the application of a Mining Right to promote socio-economic development in their host communities and to

prevent or lessen negative social impacts. Although this SEIA is being prepared for the application of a Mining Permit, it is worth noting this requirement.

The mine SLP shall ensure, amongst others, training and career progression of its employees, and in particular, Historically Disadvantaged South Africans (HDSAs), as well as the participation of women in mining. The MPRDA furthermore requires that the SLP provide strategies and measures that could prevent job loss in the event of circumstances threatening guaranteed employment.

3.1.4 South African Mining Charter, 2018

The Mining Charter focuses on sustainable transformation of the mining industry. Social management and mitigation measures to be developed as part of the SEIA will be aligned to the Mining Charter. Amongst other objectives, the Mining Charter seeks to promote equitable access to the nation's mineral resources to all the people of South Africa, meaningfully expand opportunities for HDSAs to enter the mining and minerals industry and to benefit from the exploitation of the nation's mineral resources, utilise and expand the existing skills base for the empowerment of HDSAs and to serve the community, and promote employment and advance the social and economic welfare of communities and major labour sending areas.

By embedding these principles and objectives into the project's operations, the Ghanja Stockpile Project can align with the 2018 Mining Charter's goal of transforming the mining sector into a more inclusive and beneficial industry for all South Africans, particularly focusing on empowerment and sustainable development.

3.1.5 The Department of Mineral Resources Consultation Guidelines

The Department of Mineral Resources Consultation Guidelines emphasise the importance of engaging with Interested and Affected Parties (IAPs) during the application process for prospecting and mining rights. These guidelines are directly relevant to the Ghanja Stockpile project in the Ingquza Hill Local Municipality, as they outline the necessity of including a broad range of stakeholders in the consultation process.

3.1.6 Mine Health and Safety Act, 29 of 1996

This Act is administered by the Mine Health and Safety Inspectorate of the DMR. The sections of the Act applicable to socio-economic aspects are sections 2 and 5, which provide that employers must ensure and maintain a safe and healthy environment during construction, operation, decommissioning and closure of the project.

Adherence to the Mine Health and Safety Act is not only a legal necessity but also a fundamental component of responsible mining practices. For the Ghanja Stockpile project in Ingquza Hill, it forms a crucial part of ensuring that the mining activities are conducted safely and sustainably, aligning with both legal standards and socio-economic objectives within the community.

3.1.7 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.

3.1.8 Municipal Systems Act, 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.

The Ghanja Stockpile project has the potential to align with and support the objectives outlined in the Municipal Systems Act by contributing to the socio-economic upliftment of the Ingquza Hill Local Municipality. Effective implementation of this alignment requires proactive engagement with local authorities and the community to ensure that the project not only meets legal and regulatory requirements but can also positively contribute to the municipality's goals of social and economic development.

3.1.9 The Development Facilitation Act, 67 of 1995 (DFA)

This Act sets out the principle that policy, administrative practice and laws should support effective integrated planning, optimal use of existing resources, the promotion of sustainable development, and the requirement that land use should be judged on its merits.

The Development Facilitation Act provides a comprehensive framework that the Ghanja Stockpile project must adhere to, ensuring that the project not only supports local and regional development goals but also adheres to principles of sustainability and equitable land use. By aligning with the DFA, the project can enhance its legitimacy, ensure greater community buy-in, and contribute positively to the socio-economic fabric of the Ingquza Hill Local Municipality.

3.1.10 Extension of Security of Tenure Act, 62 of 1997 (ESTA)

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.

The Extension of Security of Tenure Act imposes specific obligations on the Ghanja Stockpile project, emphasising the protection of non-landowning residents in the project area. Compliance with ESTA is not only a legal requirement but also a critical component of ethical business practices and community relations in rural South Africa. Ensuring adherence to the

Act will be pivotal in mitigating socio-economic impacts and fostering a positive and cooperative relationship with the local community.

3.1.11 Restitution of Land Rights Act, 22 of 1994

This Act provides for the restitution of rights in land, for which people and communities were dispossessed of under any racially based discriminatory law; to establish a Commission on Restitution of Land Rights and a Land Claims Court.

The Restitution of Land Rights Act directly impacts the Ghanja Stockpile project by necessitating a thorough review and resolution of any land claims associated with the project site. Adhering to the Act not only ensures compliance with South African law but also demonstrates a commitment to rectifying historical injustices and improving the livelihoods of affected communities. Effective management of these issues is crucial for the sustainable and ethical operation of mining activities in the region.

3.1.12 Traditional Leadership and Governance Framework Amendment Act, 2003 and Council of Traditional Leaders Act, 1997

These two acts provide for the recognition and establishment of traditional communities and councils and provide a framework for traditional leadership and the roles and responsibilities of this leadership.

Respecting the Traditional Leadership and Governance Framework Amendment Act, 2003, and the Council of Traditional Leaders Act, 1997, is imperative for the successful implementation of the Ghanja Stockpile project. These acts provide a crucial framework for engaging with traditional authorities and ensuring that the project proceeds in a manner that is respectful, legally compliant, and beneficial to all stakeholders involved.

3.2 Provincial Policy

Relevant policy and planning documents on provincial level include:

- Eastern Cape Provincial Spatial Development Framework (PSDF) 2020 ;
- Eastern Cape Socio-Economic Councils (ECSECC) Strategic Plan for 2020-2025. ;

3.2.1 Eastern Cape Provincial Spatial Development Framework (PSDF) 2020

The proposed Ghanja Stockpile project in the Ingquza Hill Local Municipality can partially contribute toward several key aspects of the Provincial Spatial Development Framework (PSDF). The PSDF is designed to guide economic development, environmental sustainability, and infrastructure enhancement in underdeveloped areas. By creating job opportunities in operations, administration, and transportation, the project supports the PSDF's objectives of stimulating local economies and reducing unemployment, which are particularly vital for the economic upliftment of the region.

Environmentally, the project's commitment to sustainable practices, such as the use of mobile and temporary infrastructure, plans for topsoil conservation, and compliance with strict environmental regulations, including the application for a Water Use License, aligns with the PSDF's emphasis on integrating environmental considerations into development initiatives. This approach not only mitigates potential adverse impacts but also promotes the sustainable use of natural resources, a core aim of the PSDF.

However, the project's success in aligning with the PSDF will depend significantly on its implementation, particularly in managing its socio-economic and environmental impacts. Engaging with local communities to address potential impacts, ensuring equitable benefit distribution, and implementing CSR initiatives aligned with local needs are essential for fostering community development and support. These efforts must be meticulously managed to avoid exacerbating social divides or causing long-term environmental degradation.

In summary, the Ghanja Stockpile project holds the potential to partially contribute towards the PSDF through its strategic initiatives in economic stimulation, environmental management, and infrastructure development. The key to realizing these benefits lies in its execution, ensuring that the project not only adheres to regulatory frameworks but also genuinely contributes to the sustainable development of the Ingquza Hill Local Municipality.

3.2.2 Eastern Cape Socio-Economic Consultative Council's (ECSECC) Strategic Plan for 2020-2025

The proposed Ghanja Stockpile project in the Ingquza Hill Local Municipality can partially contribute towards several key aspects of the Eastern Cape Socio-Economic Consultative Council's (ECSECC) Strategic Plan for 2020-2025. The ECSECC plan emphasises economic transformation, job creation, and sustainable development as its core objectives, which resonate with the goals of the project. By creating job opportunities and stimulating local economic activity, the project partially contributes to these regional development goals. The project's emphasis on sustainable environmental management through the use of mobile and temporary infrastructure, as well as plans for post-mining rehabilitation, aligns with the ECSECC's strategic focus on minimising environmental impacts and promoting sustainability.

In conclusion, the Ghanja Stockpile project has the potential to partially contribute to the socio-economic goals outlined in the ECSECC Strategic Plan. Effective implementation, continuous community engagement, and strict adherence to environmental and social governance standards will be essential for maximising the positive impacts of the project and ensuring sustainable development in the region.

3.3 District and Local Municipalities Policies

The strategic policies at a district and local level have similar objectives for the respective areas, namely, to accelerate economic growth, create jobs, and uplift communities. The proposed Ghanja Stockpile is considered to align with the aims of these policies, even if contributions to achieving the goals therein are only minor.

A brief review of the most relevant district and local municipal policies is provided below:

- O.R Tambo District Municipality 2022-2027
- Ingquza Hill Local Municipality 2022/2027

3.3.1 OR Tambo District Municipality 2022-2027

The proposed Ghanja Stockpile project in the Ingquza Hill Local Municipality is aligned with the objectives outlined in the Integrated Development Plan (IDP) for the OR Tambo District Municipality for 2022-2027. The IDP emphasises the importance of economic transformation through infrastructure development and job creation to address poverty, unemployment, and inequality in the region. The project promises to contribute to these goals by creating jobs and stimulating local economic activity through its mining operations, aligning with the IDP's vision of fostering a vibrant, innovative, and economically prosperous district.

Environmental sustainability is another key focus of the IDP, advocating for sustainable environmental management and responsible natural resource use. The Ghanja Stockpile project's commitment to employing mobile and temporary infrastructure, alongside plans for environmental rehabilitation, reflects the IDP's objectives of minimising environmental impacts and promoting sustainability. This is particularly pertinent given the project's proximity to water resources and the associated regulatory requirements.

Consistent with the IDP's emphasis on good governance and public participation, the success of the mining project will significantly depend on effective community engagement. Addressing potential impacts, ensuring equitable benefit distribution, and fostering inclusivity are essential to align with the IDP's goals and ensure community support.

Overall, the Ghanja Stockpile project aligns with the OR Tambo District's IDP by focusing on economic development, environmental sustainability, and community engagement. For maximal positive impact, the project's implementation should be closely integrated with the broader provincial and national development strategies, ensuring that it not only adheres to regulatory frameworks but also partially contributes to sustainable regional development.

3.3.2 Ingquza Hill Local Municipality 2022/2027

The proposed Ghanja Stockpile project in the Ingquza Hill Local Municipality aligns with several objectives outlined in the Integrated Development Plan (IDP) for 2022/27. The IDP emphasises economic growth and job creation, which the mining project can directly support by providing employment opportunities in both construction and operational phases. This initiative aligns with the IDP's goals to stimulate local economic development and reduce unemployment in the area.

Environmental sustainability is another core component of the IDP, and the Ghanja Stockpile project addresses this through its commitment to minimal environmental impact. The project plans to use mobile and temporary infrastructure to reduce its environmental footprint and has

incorporated plans for site rehabilitation post-mining, adhering to local environmental regulations and the need for environmental and water use licenses.

The project also proposes the development of temporary roads and other infrastructure enhancements, which, while primarily serving the mining operations, align with the IDP's infrastructure improvement objectives.

Community engagement and inclusion are crucial, as the IDP highlights the importance of public participation and community involvement in development projects. The Applicant will need to engage effectively with local communities to ensure the project aligns with community needs and expectations, addressing potential impacts and ensuring equitable distribution of benefits.

Overall, the Ghanja Stockpile project has the potential to contribute to the socio-economic development goals outlined in the IDP of the Ingquza Hill Local Municipality. However, its success will depend heavily on effective implementation, adherence to environmental and social governance standards, and robust community engagement. These efforts are essential to ensure the project delivers substantial benefits while minimizing any adverse impacts.

3.4 Policy Result

From the review of various South African legislative frameworks regarding the proposed Ghanja Stockpile project in the Ingquza Hill Local Municipality, several conclusions emerge. Firstly, the project demands stringent adherence to a broad spectrum of laws, ranging from environmental protection (Mine Health and Safety Act) to socio-economic equity (Municipal Systems Act, Development Facilitation Act) and land rights (Restitution of Land Rights Act, Extension of Security of Tenure Act). This legislation ensures that the project's operations are compliant, ethically grounded, and aligned with national development objectives.

Effective engagement with local communities, authorities, and stakeholders is paramount, as highlighted across multiple legislations. This ensures that the mining activities address the needs and respect the rights of those affected. The project is positioned to benefit the local economy through job creation and infrastructure development, with a legislative emphasis on ensuring these benefits are equitably shared.

Furthermore, there's a clear mandate for environmental and cultural responsibility, necessitating sustainable practices and respectful land use planning that honours the area's cultural significance. Conflict management must be proactive, utilising legal frameworks to maintain harmony and resolve disputes effectively. Finally, strategic and ethical planning is essential for the project's long-term success, integrating all these legislative requirements into every stage of project execution to mitigate future challenges and maximize benefits for all stakeholders. This comprehensive approach is not merely about legal compliance but about fostering a responsible, beneficial, and sustainable mining operation in Ingquza Hill.

4 Approach and Methodology

4.1 Purpose of the Study

The International Principles for Socio-Economic Impact Assessment define SEIA as “The processes of analysing, monitoring and managing the intended and unintended socio-economic consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any socio-economic change processes invoked by those interventions”.

The International Principles for Socio-Economic Impact Assessment define socio-economic impacts as changes to one or more of the following:

- People’s way of life – that is, how they live, work, play and interact with one another on a day-to-day basis.
- Their culture – that is, their shared beliefs, customs, values and language or dialect.
- Their community – its cohesion, stability, character, services and facilities.
- Their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
- Their environment – the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to, the adequacy of sanitation, their physical safety, and their access to and control over resources.
- Their health and wellbeing – health is a state of complete physical, mental, socio-economic, and spiritual wellbeing and not merely the absence of disease or infirmity.
- Their personal and property rights – particularly whether people are economically affected or experience personal disadvantage which may include a violation of their civil liberties.
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

The purpose of this SEIA Process is therefore to:

- Provide baseline information describing the socio-economic environment within which the project is proposed, and which may be impacted (both positively and negatively) as a result of the proposed development.
- Identify, describe, and assess possible socio-economic risks/fatal flaws and socio-economic impacts that may arise as a result of the proposed development (in terms of

the detailed design and construction, operation, and decommissioning phases of the project).

- Recommend ways in which negative impacts can be avoided, minimised, or their significance reduced, and positive impacts maximised or enhanced.

4.2 Approach to Study

These guidelines are based on international best practice. The key activities in the SEIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, and location), the settlements, and communities likely to be affected by the proposed project.
- Collecting baseline data on the current social and economic environment.
- Identifying the key potential socio-economic issues associated with the proposed project. This requires a site visit to the area and consultation with affected individuals and communities.
- Assessing and documenting the significance of socio-economic impacts associated with the proposed intervention.
- Identifying alternatives and mitigation measures.
- A site visit will be undertaken during the Assessment Phase of the SEIA. The site visit will include consultation and surveys with interested and affected parties.
- Preparation of a SEIA Report for inclusion in the BA Report to be prepared for the project.

4.2.1 Collection and Review of Existing Information

Existing desktop information that has relevance to the proposed project, project area and/or surroundings was collected and reviewed. The following information was examined as part of this process:

- Project maps and layouts.
- Google Earth imagery.
- A description of the project (as provided by the project proponent).
- Responses to questions posed to the project proponent regarding employment and socio-economic upliftment and local economic development opportunities (as provided by the project proponent).
- Census Data (2016), and the Local Government Handbook (2019).

- Planning documentation such as Provincial Growth and Development Strategies (PGDSs), Local and District Municipality Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and development goals and objectives.
- Relevant legislation, guidelines, policies, plans, and frameworks.
- Available literature pertaining to socio-economic issues associated with the development, operations, and associated infrastructure.

The identification of potential socio-economic issues associated with the proposed Ghanja Stockpile is based on primary and secondary information about the area and visits to the relevant communities by field workers/members of the SEIA study team.

4.2.2 Definition of Social Impacts

"The consequences to human populations of any public or private actions (including policies, programs, plans, and/or projects) that alter the ways in which people live, work, play, relate to one another, organise to meet their needs, and generally live and cope as members of society." These effects are felt at various levels, including the individual, family or household, community, organisation, or society. Some social impacts are physically felt by the body, whereas others are perceptual or emotional" (Vanclay, 2002).

When considering social impacts, keep in mind that socio-economic change is natural and ongoing when considering social impacts (Burdge, 1995). It's also important to realise that government and private sector policies, plans, programs, and projects can affect social change's pace and direction. Social impacts are often change processes (Vanclay, 2002). For instance, temporary construction workers don't affect society. However, their presence can increase anti-social behaviour and other socio-economic issues. Understanding processes with social impacts is Vanclay's approach. Socio-economic assessment specialists must consider the complex causal mechanisms that cause socio-economic impacts. Following impact pathways, or causal chains, and considering likely interactions can reveal the full range of impacts (Vanclay, 2002).

A SEIA should thus enable authorities, project proponents, individuals, communities, and organizations to understand and anticipate the potential socio-economic consequences of implementing a proposed policy, program, plan, or project. The SEIA process should inform communities and individuals about the proposed project and its potential socio-economic consequences, while also allowing them to assess the implications and identify potential alternatives. The assessment process should also alert proponents and planners to the likelihood and nature of socio-economic impacts, allowing them to anticipate and predict these impacts ahead of time, so that the assessment's findings and recommendations are incorporated into and inform the planning and decision-making process.

However, the issue of social impacts is complicated by the way in which different people from different cultural, ethnic, religious, gender, and educational backgrounds, etc. view the world.

This is referred to as the “social construct of reality”. The social construct of reality informs people’s worldview and the way in which they react to changes.

4.2.3 Timing of Social and Economic Impacts

Socio-economic impacts vary in both time and space. In terms of timing, all projects and policies go through a series of phases, usually starting with initial planning, followed by implementation (construction), operation, and finally closure (decommissioning). The activities, and hence the type and duration of the socio-economic impacts associated with each of these phases are likely to differ.

5 Socio-Economic Profile

5.1 Study Area Overview

This section outlines the relevant administrative context, the provincial socio-economic, and municipal contexts. It concludes with a description of the local context of the immediate surroundings of the proposed Ghanja Stockpile.

The proposed Ghanja Stockpile is situated approximately ~1.5km south-east of the town of Ndindindi within the O.R. Tambo District Municipality in the Eastern Cape Province in South Africa.

Table 2: Study Area Context for the Ghanja Stockpile

Province	Eastern Cape Province
District Municipality	O.R. Tambo District Municipality
Local Municipality	Ingquza Hill Local Municipality
Ward number(s)	23
Nearest town(s)	~1.5km south-east of the town of Ndindindi
Current Zoning	Natural Grassland
Current land use	The land in question comprises 5-ha area on a portion of Remaining Extent of Farm 89, which is currently classified as natural grasslands with sparse vegetation, cattle grazing was observed within the proposed development area.
Access	Access to the stockpile area will be via dirt road of <600m that will be developed from Ghanja Road to the quarry area to gain access to the mining permit area as well as the stockpile area.

This Chapter provides an overview of the socio-economic environment of the province, District Municipality (DM), and Local Municipality (LM) within which the Ghanja Stockpile is proposed and provides the socio-economic basis against which potential issues can be identified.

5.2 Site Specific Sensitivities

Table 3 presents a preliminary assessment of key socio-economic attributes identified in the study area which can be seen on Figure 6, their potential impacts, and proposed next steps for each attribute. The attributes have been identified based on a review of existing information, site visits, and initial stakeholder consultations. The table is intended to provide a structured framework for the ongoing SEIA process and will be further refined as the assessment progresses.

The Ghanja Stockpile presents both challenges and opportunities from a socio-economic perspective. Through a robust SEIA process, we aim to ensure that the development is socio-economically sustainable and contributes positively to the local socio-economic environment.

Table 3: Site Specific Sensitive Attributes Identified

Sensitive Attribute Identified	Description	Impact Associated	Risk/Opportunity	Next Steps
Rivers and Streams	Prominent rivers or streams include the Luphuthana, located less than 500m south, and a non-perennial river that intersects the proposed stockpile area.	Development which impacts rivers or stream are not advised, the area houses subsistence farmers which make use of these hydrological features and therefore may carry a negative social rating if impacted.	Risk	Implement the recommendations from the freshwater study conducted.
Main Access Roads	The main access road is Ghanja Road, located directly north of the site area.	These will provide access for the components of the to be transported along, as well as for the workers to gain access, it is therefore important that public transport exists along these routes, which was confirmed during the site visit.	Opportunity	Implement the recommended traffic management plan to manage the increased traffic during construction and operation, ensuring minimal disruption to local communities.
Internal Farm Gravel Roads	A dirt road of <600m will be developed from Ghanja Road to the quarry area to gain access to the mining permit area as well as the stockpile area.	Not Applicable	Opportunity	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.
Abandoned Buildings	The area has abandoned infrastructure including abandoned or heavily degraded buildings which appear to have been used for housing of farming staff.	These buildings are in close proximity to the development footprint and could be utilised by the developer to provide temporary residence for developers or security. These buildings could also pose a security risk during construction for individuals using the access road or for locals in close proximity and special attention must therefore be given to utilizing or securing these.	Risk/Opportunity	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.
Agricultural Development	Cattle were noted on site. Pivots and small holdings can be found around the development area.	The development is primarily in natural grasslands region. Development of the stockpile may pose a security risk and increase the rate for small petty crimes in the surrounding communities, this includes theft of items, livestock, produce, etc.	Risk	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.
Cattle Development				
Mixed Residential	Along the main access road in amongst the subsistence farming houses are some mixed residential homes.	These areas house mainly unemployed unskilled or semi-skilled labour which may be able to be provided with employment and skills development training during the construction and operation of the stockpile.	Opportunity	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.
Mixed Industrial	Small scale economic activities which take place within the local community such as small shops, processing plants, industrial activities, towing companies, etc.	Activities which could provide goods and services on a local scale to the developers during the construction and operational phases of development which will stimulate the local economy.	Opportunity	The extent of the impact and associated mitigation measures will be assessed within this SEIA.
Mixed Consumer				
Mixed Mining	Illegal mining activities noted within close proximity of the proposed stockpile area.	A temporary minor fluctuation in employment may occur (from mining to construction) however the risk of this is perceived to be low.	Risk/Opportunity	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.

Sensitive Attribute Identified	Description	Impact Associated	Risk/Opportunity	Next Steps
School	<p>Schools found within a 5km radius include:</p> <ul style="list-style-type: none"> • Khonjwayo SP School, located ~2.1km north of the proposed stockpile area. • Mxhume Junior Secondary School and Marelane SS School located ~2.4km north-east of the proposed stockpile area. • Ntlamvukazi SP School, located ~3.9km north-east of the proposed stockpile area. • Ntlamvukazi Junior Secondary School and Ntlamvukazi SP School, located ~4km north-west of the proposed stockpile area. 	<p>Well-maintained schools have no direct anticipated impacts from the development, it must however be noted that the development of the structure within close proximity serves as a good opportunity for learning and knowledge share.</p>	Opportunity	<p>Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.</p>
Towns and Settlements	<p>Towns and settlements found within the study area include:</p> <ul style="list-style-type: none"> • Ndindindi, located ~1.5km north-west of the proposed stockpile area. • Ntlavukazi, located ~4km north-west of the proposed stockpile area. 	<p>Alternative employment opportunities will be provided to the local community members, although the employment opportunities are anticipated to be limited.</p>	Opportunity	<p>Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.</p>
Indigenous Peoples	<p>It is assumed there are no indigenous communities directly impacted since the project will be located in a vacant plot outside the community.</p>	<p>No direct impacts anticipated. However, if there are unrecognised indigenous communities, they could be affected by the project.</p>	Not applicable	<p>No specific action needed unless new information about indigenous communities in the area becomes available.</p>
Cultural Heritage	<p>It is assumed there are no cultural heritage sites directly impacted, but it's worth noting that the project's location might be near an area where the Lamabasa community used to reside before relocating to their current site.</p>	<p>While the current community is situated away from the proposed quarry mining site, it's important to note that the area where the quarry will be established once housed the community, which is now vacant land. This land holds the memories and remnants such as graves of the previous community, with potential unrecognized cultural heritage sites. No direct impacts anticipated. However, if there are unrecognised cultural heritage sites, the development of a stockpile can have positive social impacts, through stimulating local economic development, improve living standards, and showcase environmental stewardship.</p>	Opportunity	<p>Implement heritage specialist recommendations to mitigate risks and ensure a harmonious integration of the stockpile into the landscape.</p>

Sensitive Attribute Identified	Description	Impact Associated	Risk/Opportunity	Next Steps
Cumulative Impact	Other stockpile or mining associated projects in the area include: <ul style="list-style-type: none"> • Unnamed quarry, located ~18.3km south-west of the proposed stockpile area; and • Sibanye Stillwater Gold Driefontein 6 Shaft, located ~20.1km south-west of the proposed stockpile area. 	Potential for influx of workers in the surrounding area, as well as diversified skill development from the surrounding mines. There is also the potential impact of the change to the natural landscape. This impact is also associated with the economic multiplier effect.	Risk/Opportunity	Implement the mitigation measures associated to the extent of the impact as recommended in Chapter 8.



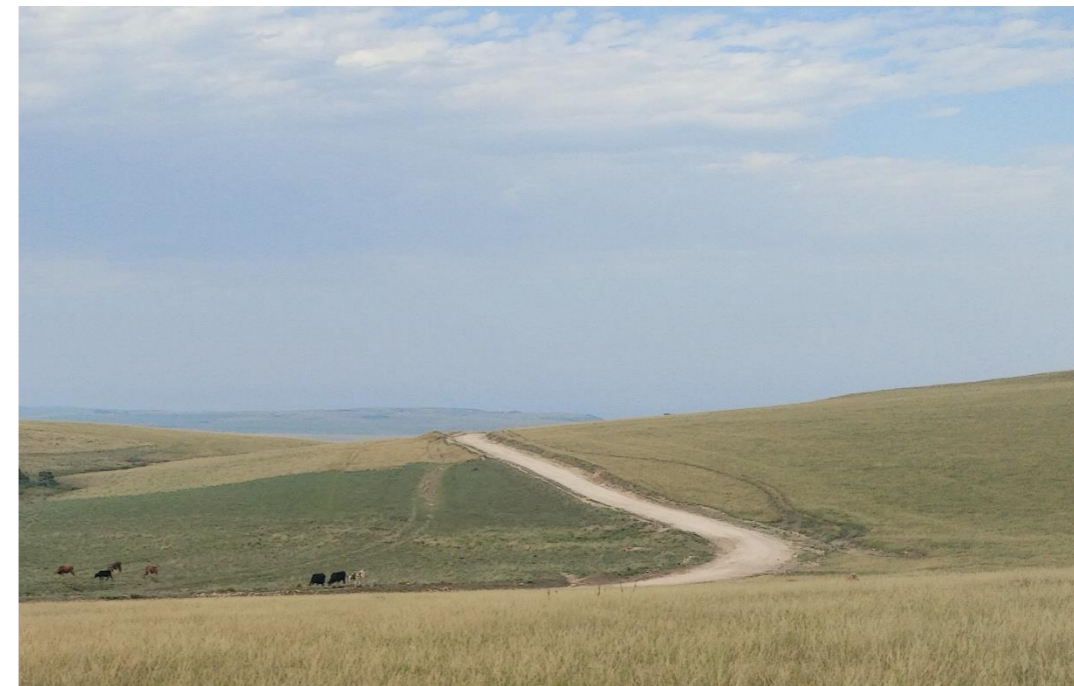
Photograph 1: Abandoned Infrastructure within Ghanja Stockpile Development Area



Photograph 2: Agricultural Activity near the Ghanja Stockpile Development Area



Photograph 3: Infrastructure Noted within Close Proximity of the Ghanja Stockpile Area



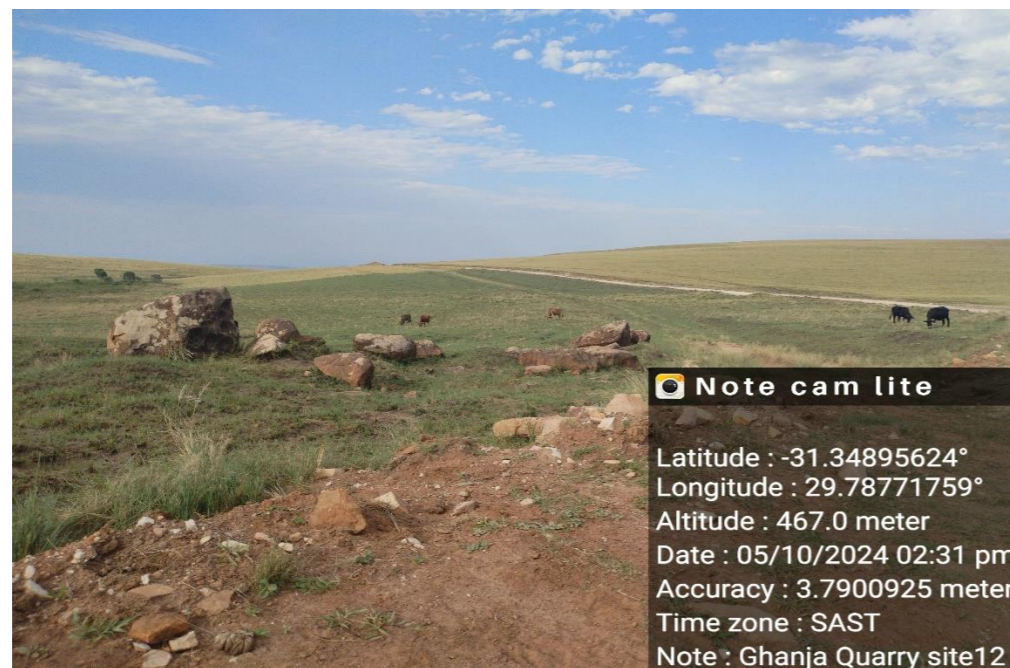
Photograph 4: Ghanja Stockpile Access Road



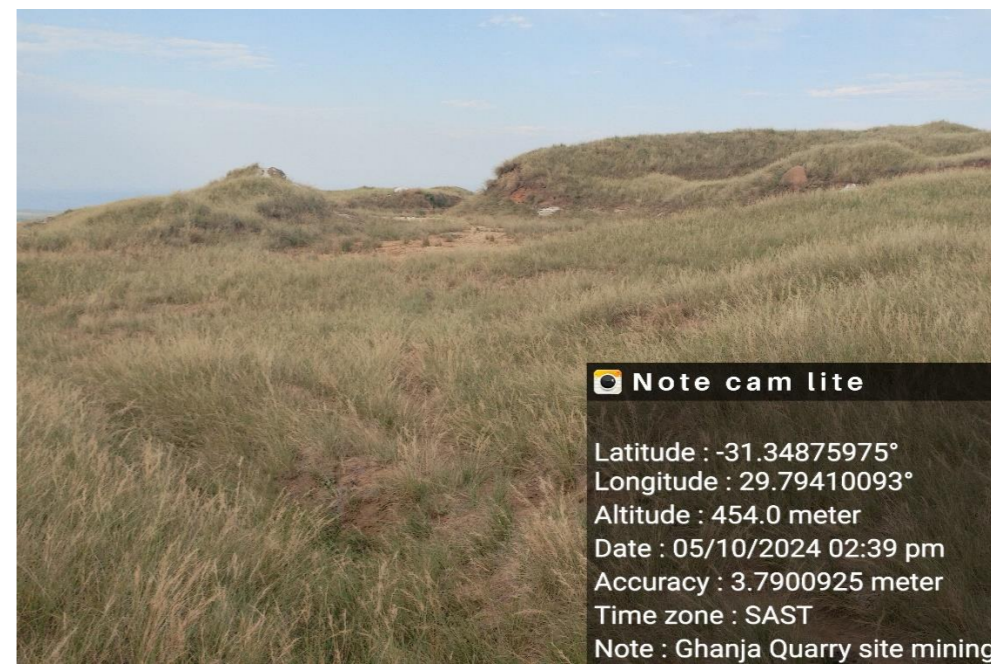
Photograph 5: Ghanja Quarry Landscape View 1



Photograph 6: Ghanja Quarry Landscape View 2



Photograph 7: Ghanja Stockpile Landscape View 1



Photograph 8: Ghanja Stockpile Landscape View 2

Figure 5: Site Photos

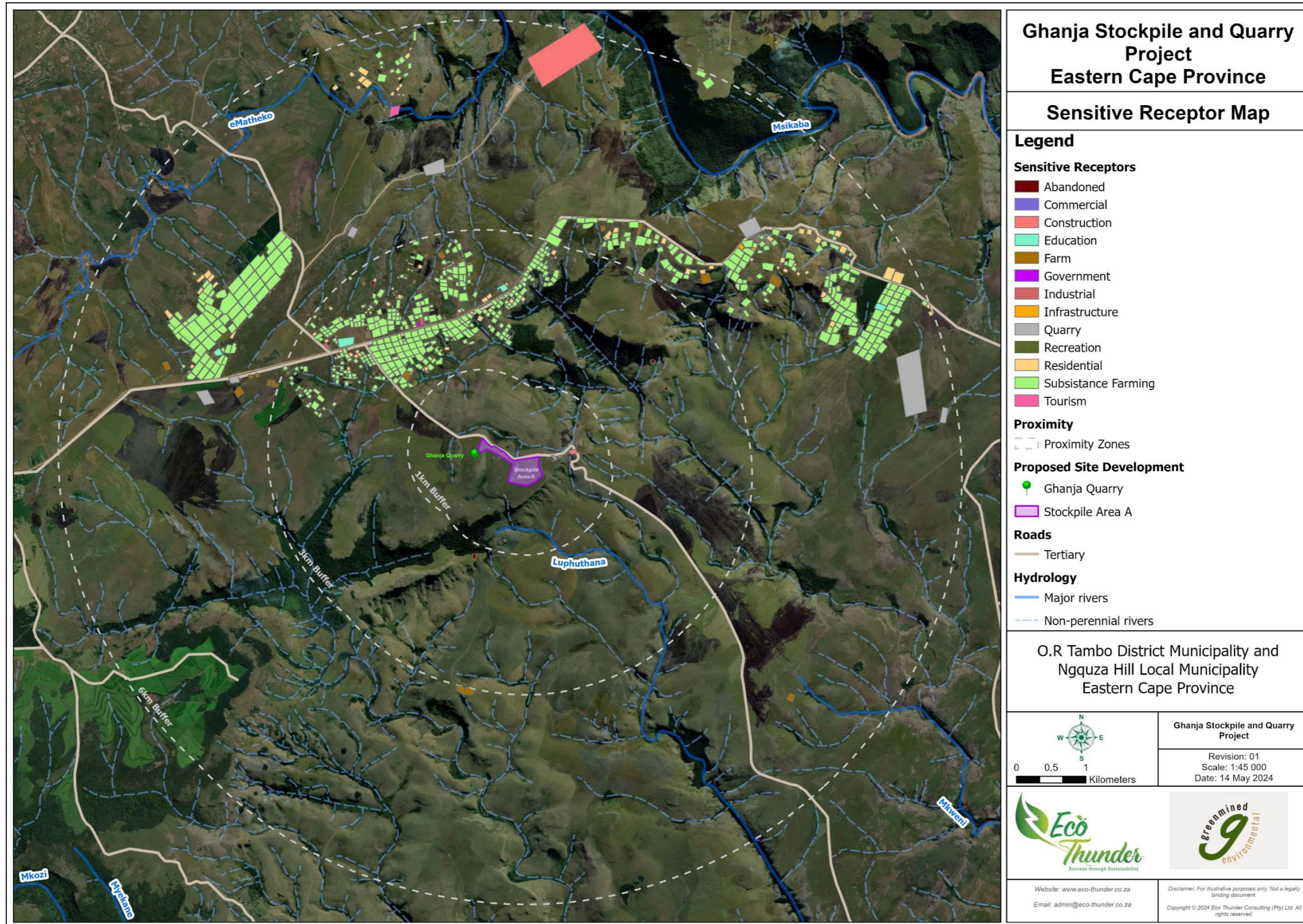


Figure 6: Overview of Sensitivities

5.3 Eastern Cape Province

The Eastern Cape, covering an area of 372 889km², is South Africa's second-largest province and the third most populated province. It lies between the Western Cape and KwaZulu-Natal, extending from the semi-arid Karoo to the Drakensberg valleys and mountains. The province features a long coastline along the Indian Ocean. Bisho serves as the capital, with other major cities including Port Elizabeth and East London.

Economically, the Eastern Cape is marked by its agricultural and forestry potential alongside a strong manufacturing sector centered in its metropolitan cities. Despite being one of the poorer regions, it is a significant hub for South Africa's automotive industry. The province is administratively divided into two metropolitan and six district municipalities, further subdivided into 31 local municipalities.

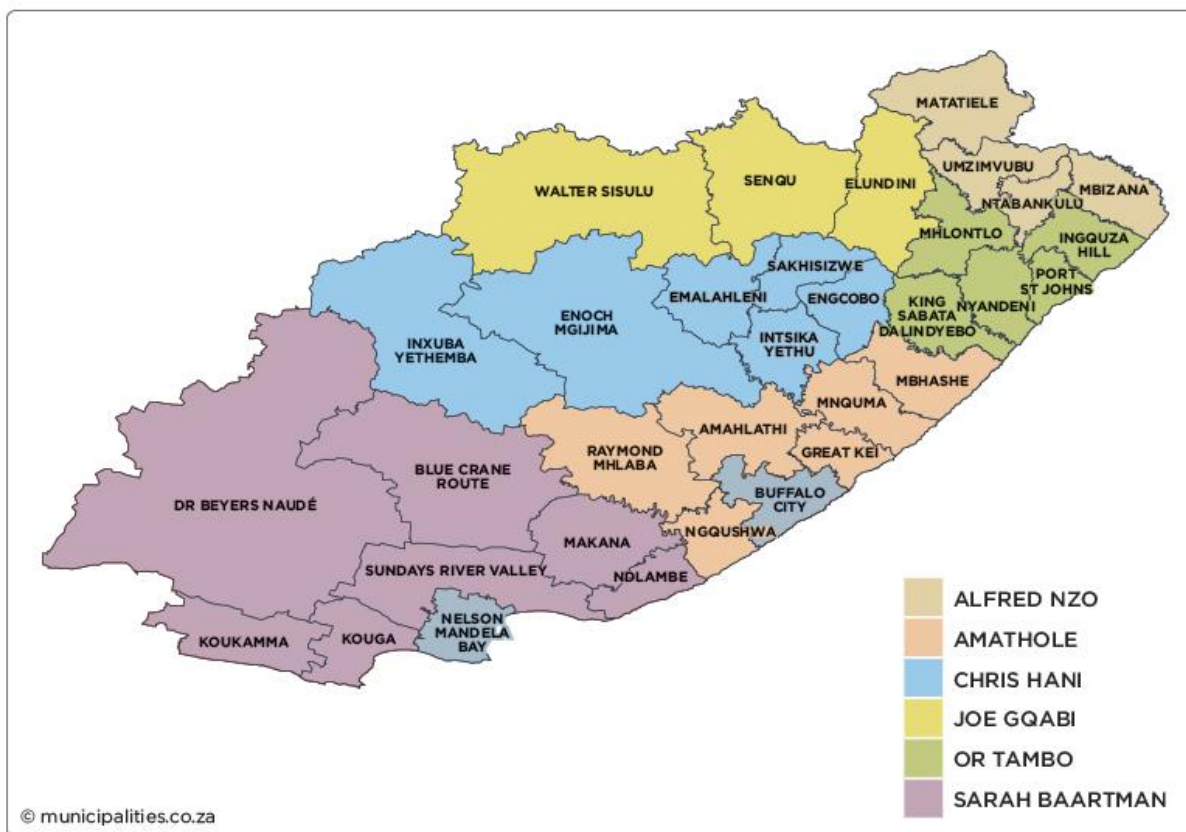


Figure 7: Map showing the districts of the Eastern Cape Province

(Source: www.municipalities.co.za)

5.3.1 Population

In 2021 the Eastern Cape's population reached 7.4 million, accounting for 12.3% of South Africa's total population. Over the decade from 2011 to 2021, the region experienced an average annual population growth rate of 1.01%. This rate is nearly half the national average growth rate of 1.50% for South Africa during the same period.

Table 4: Population of Eastern Cape and South Africa, 2010-2020

	Eastern Cape	South Africa
2010	6,640,000	51,200,000
2011	6,690,000	52,000,000
2012	6,750,000	52,800,000
2013	6,810,000	53,700,000
2014	6,880,000	54,500,000
2015	6,950,000	55,300,000
2016	7,020,000	56,200,000
2017	7,100,000	57,000,000
2018	7,180,000	57,900,000
2019	7,250,000	58,800,000
2020	7,330,000	59,600,000
Average Annual Growth Rate		
2010-2020	1.00%	1.55%

The Eastern Cape's population pyramid displays a youthful demographic, with a significant portion of the population under 15 years, indicating a strong base of young residents. There is a balance between males and females in the younger age groups, with a slight male dominance. As ages increase, particularly past 60, females begin to outnumber males, reflecting higher female life expectancy. This youthful demographic suggests a need for robust educational and employment opportunities to capitalize on the potential workforce, while the aging female population highlights the importance of tailored healthcare and social services.

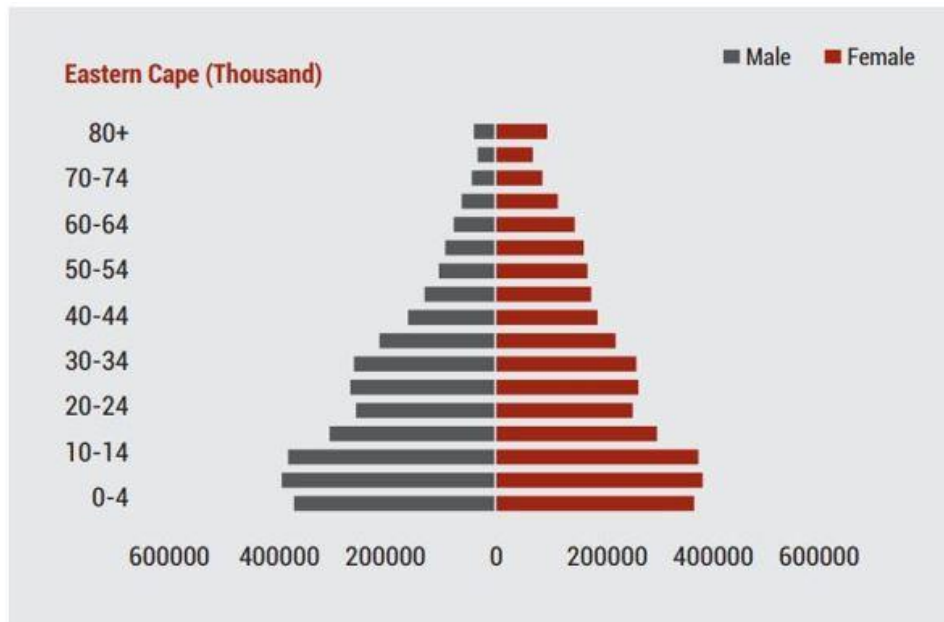


Figure 8: Population Pyramid of the Eastern Cape Province, 2022

In terms of the district distribution of the Eastern Cape population, in 2018, O.R. Tambo was the most populous district with a population of 1,510,000, contributing over 21% to the provincial population. It is followed by Nelson Mandela Bay, Amathole and Buffalo City District Municipalities. The lowest population in the province is found in Sarah Baartman District Municipality which contributes 7.08% to the population.

Table 5: Population of District Municipalities in the Eastern Cape Province

District Municipality	2008	2013	2018	Average Annual Growth
Nelson Mandela Bay	1,110,000	1,200,000	1,290,000	1.52%
Buffalo City	774,000	816,000	869,000	1.17%
Sarah Baartman	431,000	469,000	507,000	1.65%
Amathole	878,000	859,000	871,000	-0.07%
Chris Hani	803,000	821,000	857,000	0.66%
Joe Gqabi	349,000	361,000	382,000	0.89%
O.R. Tambo	1,360,000	1,420,000	1,510,000	1.08%
Alfred Nzo	798,000	830,000	876,000	0.94%
Eastern Cape	6,497,748	6,780,283	7,161,585	0.98%

5.3.2 Economy

The Eastern Cape's GDP growth rate shows that the Eastern Cape's economic trends closely align with the national average, reflecting similar economic fluctuations. In the fourth quarter of 2023, despite the provincial economy contracting by 0.2%, half of the industries recorded positive growth rates, contributing beneficially to the region's economic output. Notably, the industries that saw significant increases were mining, which grew by 3.5%, electricity by 2.7%, transport by 2.6%, and personal services by 1.0%. However, there were also sectors that negatively impacted the GDP, with agriculture, trade, and construction experiencing declines of 9.0%, 2.7%, and 1.3% quarter-over-quarter, respectively. Additionally, government services, which is the largest employer in the province, contracted by 0.6% in the fourth quarter, further influencing the economic downturn.

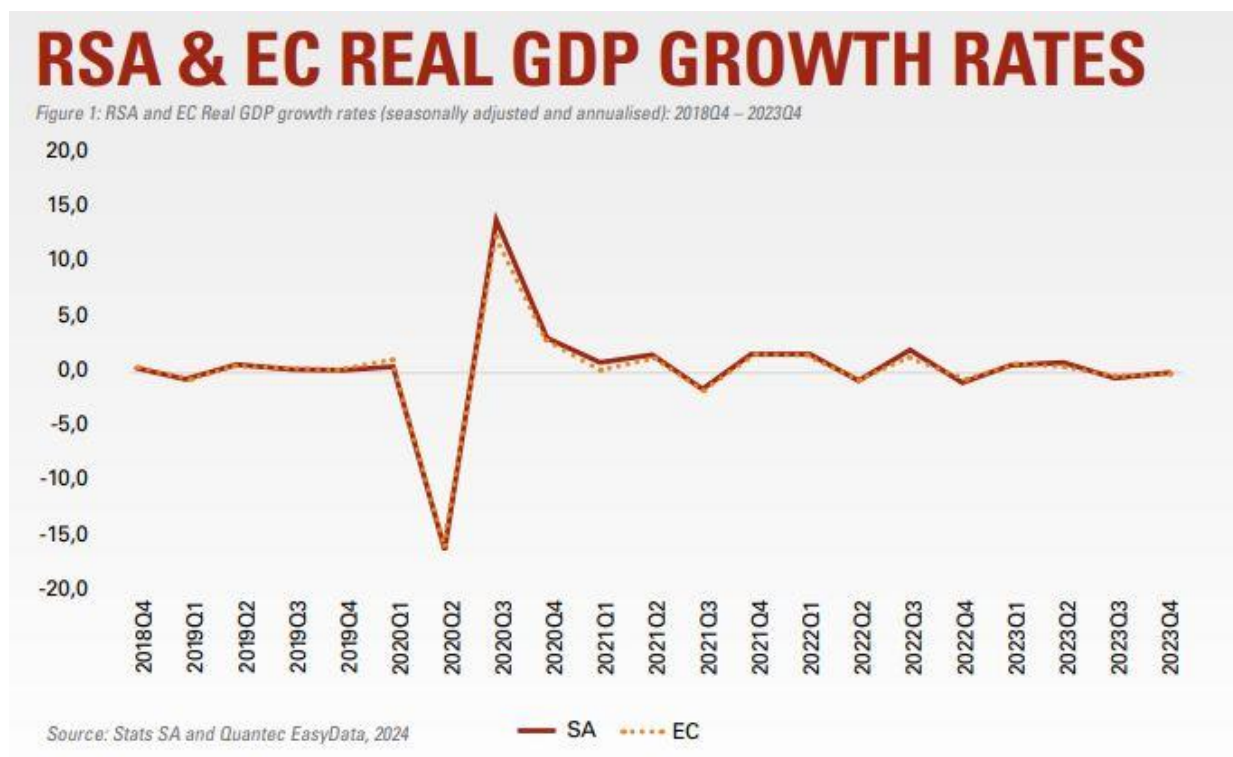


Figure 9: Eastern Cape and National GDP Growth Rates

In the fourth quarter of 2023, the Eastern Cape's Gross Value Added (GVA) at basic prices reached R333.2 billion, with the tertiary sector as the predominant contributor, accounting for 81.6% of the provincial GVA or R271.9 billion. The secondary and primary sectors contributed 16.6% and 1.8% respectively, translating to R55.1 billion and R6.1 billion. Within these sectors, personal services led in terms of individual contributions, making up 28.9% of the total GVA, followed by finance and trade which

accounted for 19.7% and 15.1% respectively. The manufacturing sector maintained its quarter-over-quarter contribution at 12.6%, demonstrating consistent performance in the provincial economy.

Table 6: Easter Cape GVA by Industry

	2022Q4		2023Q3		2023Q4	
	R million	Share %	R million	Share %	R million	Share %
Agriculture	7 557	2,3	6 030	1,8	5 486	1,6
Mining	573	0,2	585	0,2	605	0,2
PRIMARY SECTOR	8 130	2,5	6 614	2,0	6 091	1,8
Manufacturing	41 281	12,5	41 981	12,6	41 950	12,6
Electricity	4 522	1,4	4 527	1,4	4 648	1,4
Construction	8 859	2,7	8 658	2,6	8 549	2,6
SECONDARY SECTOR	54 661	16,6	55 166	16,5	55 147	16,6
Trade	51 328	15,6	51 654	15,5	50 283	15,1
Transport	21 276	6,5	21 272	6,4	21 816	6,5
Finance	63 867	19,4	65 203	19,6	65 524	19,7
Personal services	92 693	28,1	95 419	28,6	96 358	28,9
Government services	37 632	11,4	38 177	11,4	37 964	11,4
TERTIARY SECTOR	266 795	80,9	271 725	81,5	271 944	81,6
All industries at basic prices	329 586	100,0	333 505	100,0	333 182	100,0

The proposed Ghanja Stockpile project, while expected to provide a positive economic boost to the Eastern Cape, will have a relatively small overall impact on the provincial economy. By contributing to the mining sector, which experienced a 3.5% growth in the fourth quarter of 2023, the project aligns with recent positive trends within this industry. Although the primary sector only accounts for a modest 1.8% of the province's GVA, the project can help sustain and potentially enhance this contribution. The creation of jobs and the stimulation of local businesses through increased demand for goods and services will offer localized economic benefits. However, given the scale of the provincial economy, the overall contribution of the Ghanja Stockpile project will be modest, but it will still be a valuable addition to the ongoing economic activities within the Eastern Cape.

5.3.3 Unemployment

The figures below depict the trend in the overall labour market status of the Eastern Cape from the fourth quarter of 2018 to the fourth quarter of 2023. During this period, the provincial labour force shrank by 2.7% to 2,320,287 individuals. The number of employed persons decreased from 1,458,847 in the third quarter of 2023 to 1,347,610 in the fourth quarter. Meanwhile, the number of discouraged work-

seekers increased significantly by 3.6% to 162,380 in the fourth quarter. Consequently, the labor participation rate declined to 51.3% from 52.9% in the previous quarter, reflecting a new upward trend. Additionally, the expanded definition of the unemployment rate, which includes discouraged job seekers, rose by 3.1 percentage points to 47.1% on a quarter-on-quarter basis.

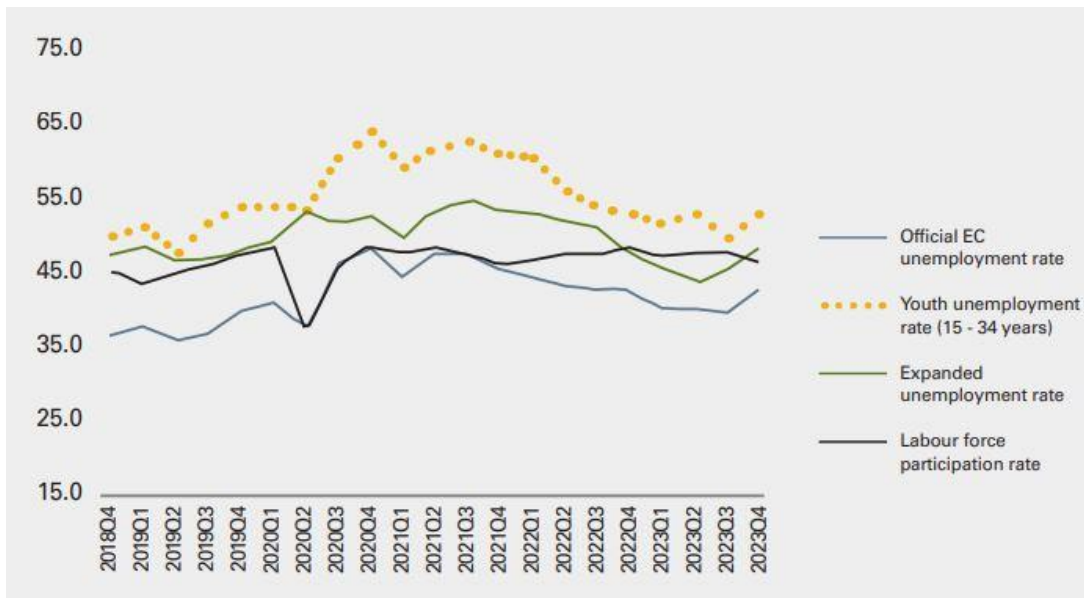


Figure 10: Eastern Cape Labour Market Trends

For the youth (aged 15-34 years), the unemployment rate increased by 3.5 percentage points to 53.2% in the fourth quarter. Among adults (aged 35-64 years), the unemployment rate rose by 2.7 percentage points to 31.9% in the same period. On a year-on-year basis, the youth unemployment rate increased by 0.6 percentage points, while the adult unemployment rate decreased by 0.9 percentage points. Regarding gender disparity, females recorded an unemployment rate of 39.1% in the fourth quarter, up by 2.2 percentage points but still below the 40% mark for the second consecutive quarter. In contrast, the male unemployment rate was higher at 44.3%, up by 3.7 percentage points. Year-on-year, male unemployment increased by 2.2 percentage points from 41.9% in the fourth quarter of 2022, while the female unemployment rate decreased significantly by 3.2 percentage points from 42.4% in the same period.

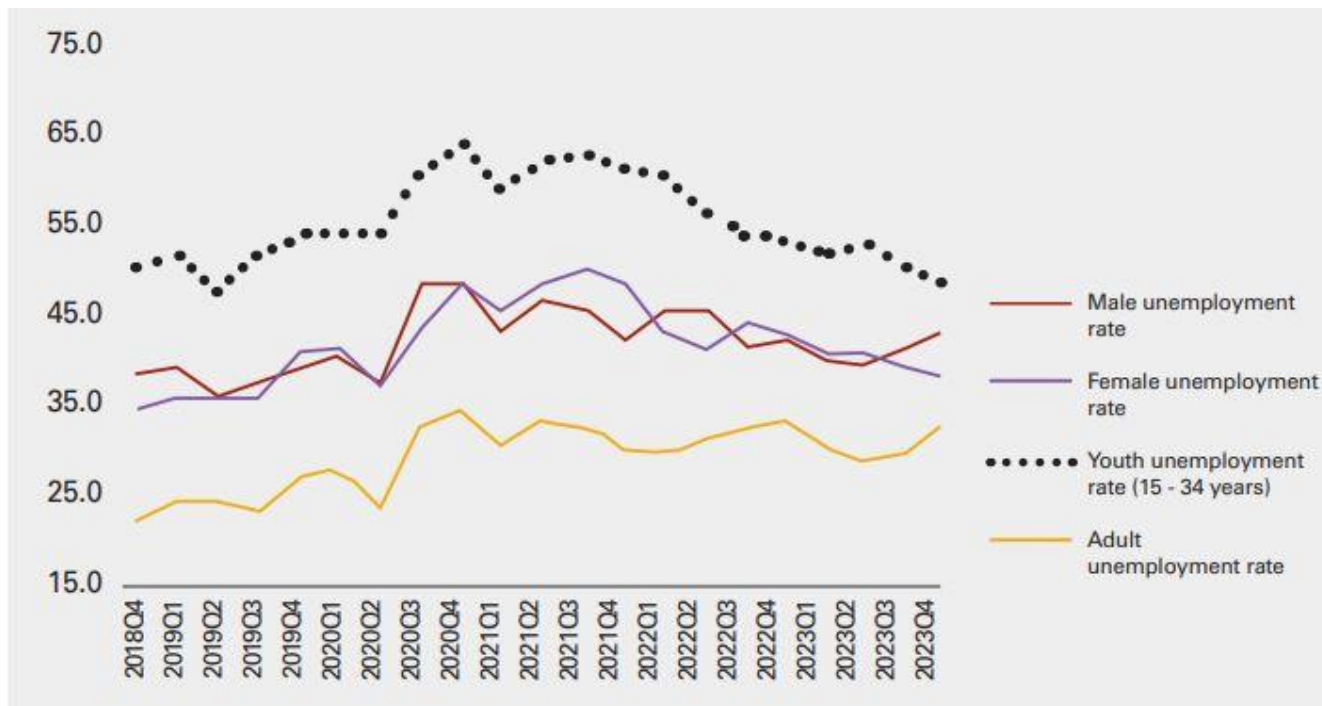


Figure 11: Eastern Cape Unemployment Rates – Male, Female and Youth

The Ghanja Stockpile project is expected to make a small but positive contribution to addressing unemployment in the Eastern Cape. By creating direct and indirect job opportunities during both the construction and operational phases, the project can provide much-needed employment for local communities. This is particularly important given the province's high unemployment rates, which reached 47.1% in the fourth quarter of 2023. The project may also stimulate related industries such as transportation and services, creating additional employment opportunities. While the overall impact on the province's unemployment rate will be limited due to the relatively small scale of the project compared to the provincial labour market, it nonetheless represents a valuable step towards economic development and job creation in the region

5.3.4 Education

Table 7 below presents the labour market status by education levels of the population in the Eastern Cape province for the fourth quarter of 2023. The table shows that the majority (49.2%) of the working-age population have not completed secondary schooling. Among the 972,677 unemployed people in the province, only 7.4% have tertiary education, while 51.3% have not completed secondary school. The unemployment rate is highest among those with less than primary education (51.5%), followed by those who have not completed secondary school (51.5%) and those who have completed primary school education (40.4%). This analysis underscores that higher education levels significantly reduce the risk of unemployment and unemployability..

Table 7: Labour Market Education Status, 2023Q4

EDUCATION STATUS	Working population (age 15+)	Labour force / economically active	Employed	Unemployed	Not economically active	Discouraged job seeker	Unemployment Rate
NO SCHOOLING	1,7%	0,7%	0,8%	0,5%	2,8%	0,5%	32,4
LESS THAN PRIMARY COMPLETED	10,3%	7,3%	5,8%	9,5%	13,5%	7,2%	54,3
PRIMARY COMPLETED	6,6%	4,8%	4,9%	4,6%	8,5%	10,8%	40,4
SECONDARY NOT COMPLETED	49,2%	41,7%	34,9%	51,3%	57,0%	61,7%	51,5
SECONDARY COMPLETED	23,0%	31,1%	34,3%	26,6%	14,6%	17,8%	35,9
TERTIARY	8,6%	14,0%	18,7%	7,4%	2,9%	1,5%	22,2
OTHER	0,5%	0,4%	0,7%	0,0%	0,7%	0,6%	8,5
TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	41,9

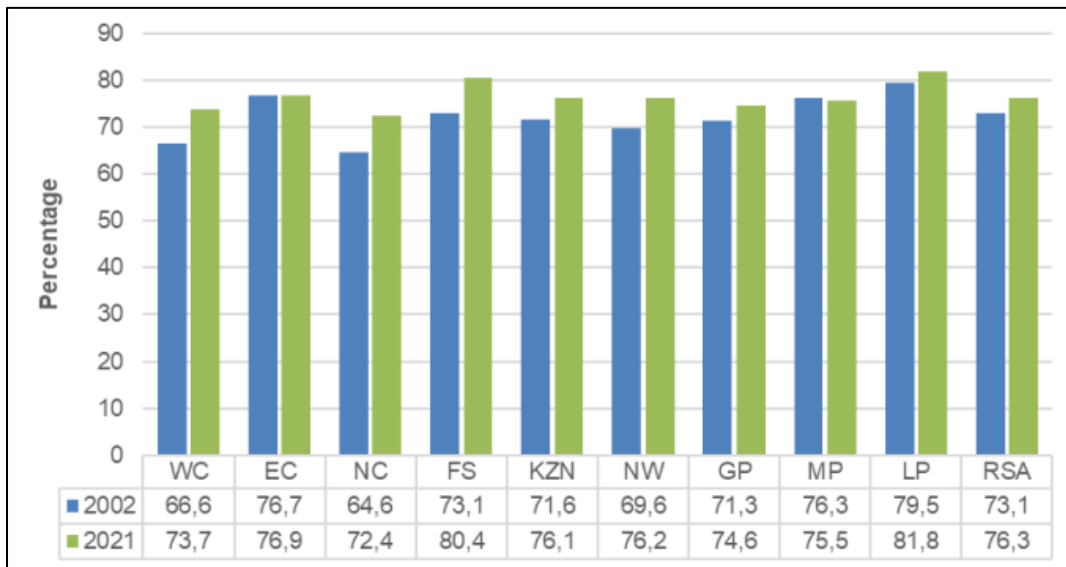


Figure 12: Ages 7-24 Years Who Attended Educational Institutions

The Eastern Cape holds the distinction of having the lowest percentage of individuals who have achieved a Grade 12 education nationally, with Limpopo Province trailing closely behind. Furthermore, the Eastern Cape ranks third in the country in terms of the percentage of individuals who have not attained any formal education. Specifically, 4.6% of its population lacks any educational background, which is higher than the national average of 3.2% for South Africa. This highlights a significant educational disparity within the province, suggesting a need for targeted interventions to enhance educational access and completion rates, particularly at the secondary level.

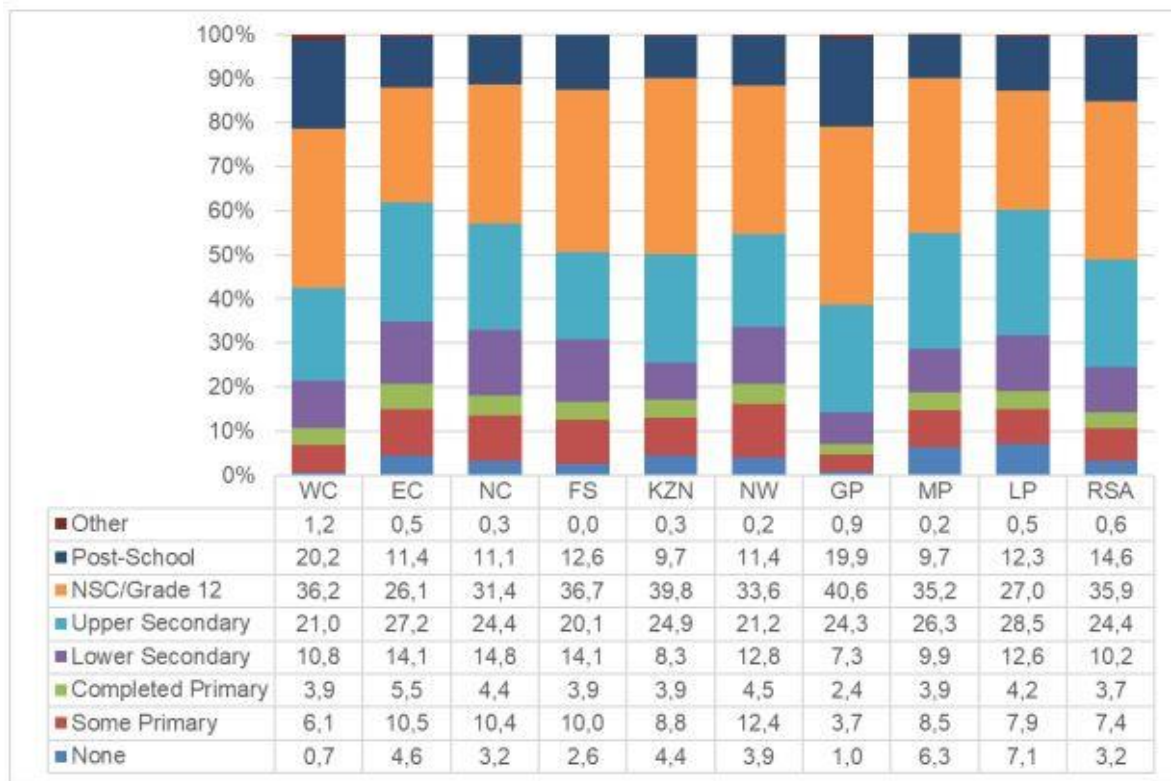


Figure 13: Education Attainment for Individuals Aged 20 Years and Older, 2021

The proposed Ghanja Stockpile project is anticipated to impact the socio-economic landscape of the Eastern Cape Province, particularly in the OR Tambo District Municipality and Ingquza Hill Local Municipality. The Eastern Cape, characterised by its agricultural and manufacturing sectors, faces challenges such as high unemployment rates and educational disparities. The introduction of this mining and stockpiling operation is expected to create employment opportunities. This could provide direct jobs during the construction and operational phases and stimulate local businesses through increased demand for goods and services. The project also focuses on sustainable and temporary infrastructure, which is important for a region with significant ecological sensitivity. Additionally, the project may offer skill development and capacity-building opportunities for the local workforce, addressing the need for enhanced educational and employment prospects. Overall, the Ghanja Stockpile project has the potential to contribute to the socio-economic development of the Eastern Cape, with considerations for economic, environmental, and social factors.

5.4 O.R Tambo District Municipality (ORTDM)

The Oliver Reginald Tambo District Municipality (ORTDM) is one of six district municipalities in the Eastern Cape, along with Alfred Nzo, Chris Hani, Amathole, Joe Gqabi, and Sarah Baartman. Spanning

15,947 km², ORTDM covers large parts of the former Transkei homeland, making it one of the province's poorest areas. Located along the Wild Coast and bordered by Amathole District to the west and KwaZulu Natal to the northeast, the district features varied landscapes from rolling valleys to rugged mountains, with a climate that changes with elevation and sea proximity.

As a predominantly rural Category C2 municipality, ORTDM operates with limited staff and budget, posing substantial administrative challenges. Each municipality contains at least one urban service centre, supporting local governance and development.

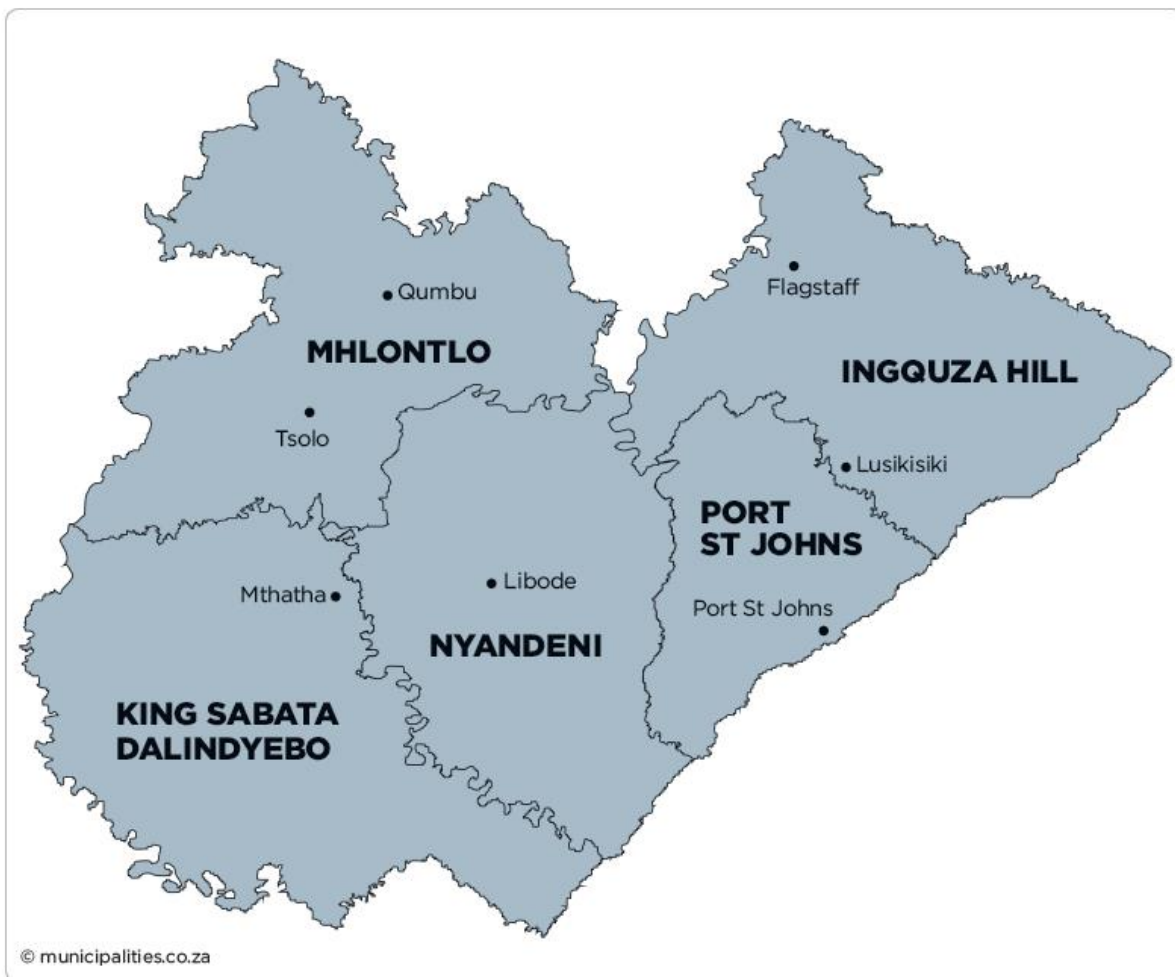


Figure 14: Local Municipalities of OR Tambo District Municipality

(Source: Local Government Handbook, 2015)

5.4.1 Population

In 2020, the ORTDM was home to 1.54 million people, representing 2.6% of South Africa's total population. From 2010 to 2020, the district experienced an average annual population growth of 1.03%, which is nearly half the national growth rate of 1.55%. This rate is slightly higher than the Eastern Cape's overall average growth rate of 1.00%, making O.R. Tambo's population growth very comparable to that of the province.

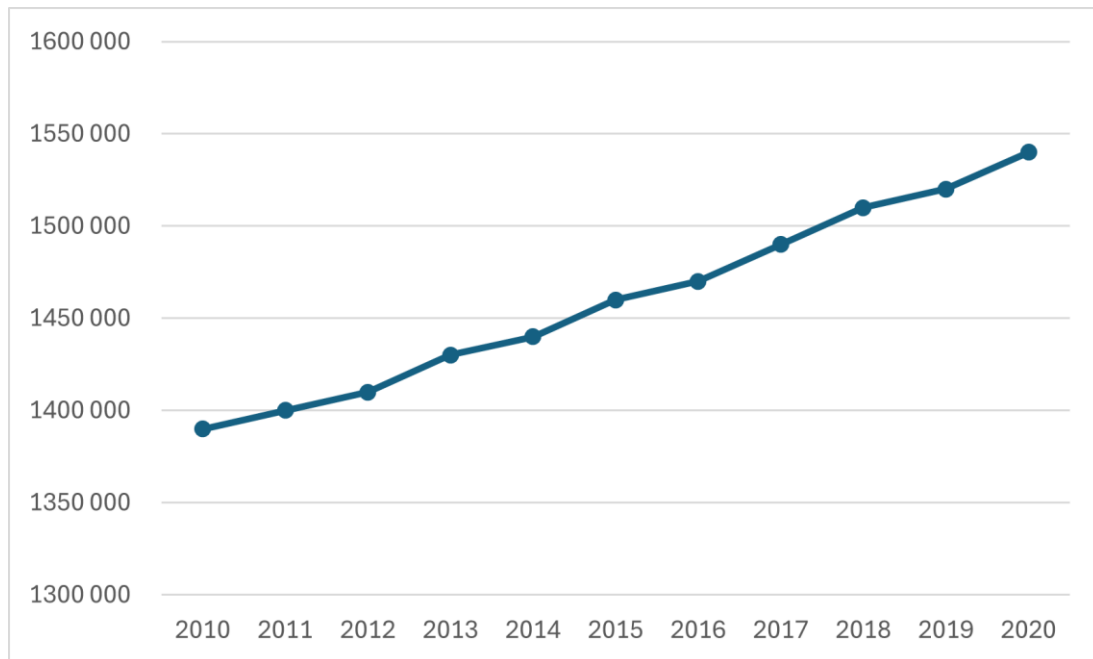


Figure 15: OR Tambo District Municipality Population, 2010-2020

Population size is a crucial aspect of demographic dynamics, but it often obscures the varying demographic situations across different age and gender groups. The structure of a population is vital for community implications and policy formulation across all sectors.

The population structure of ORTDM has undergone notable changes between 2010 and 2020, as evidenced by the population pyramid comparison. In 2010, indicative of a younger demographic, by 2020, the base of the pyramid appears more tapered, indicating a potential decline in birth rates or younger population growth over the decade. Additionally, there is an evident expansion in the middle-age segments, specifically within the 25 to 39 age brackets, pointing towards an aging population. These shifts suggest changes not only in birth rates but possibly in migration patterns as well. The aging demographic will likely have implications for future demands on social services and the labour market within the ORTDM, necessitating strategic planning and policy adjustments to accommodate these evolving needs.

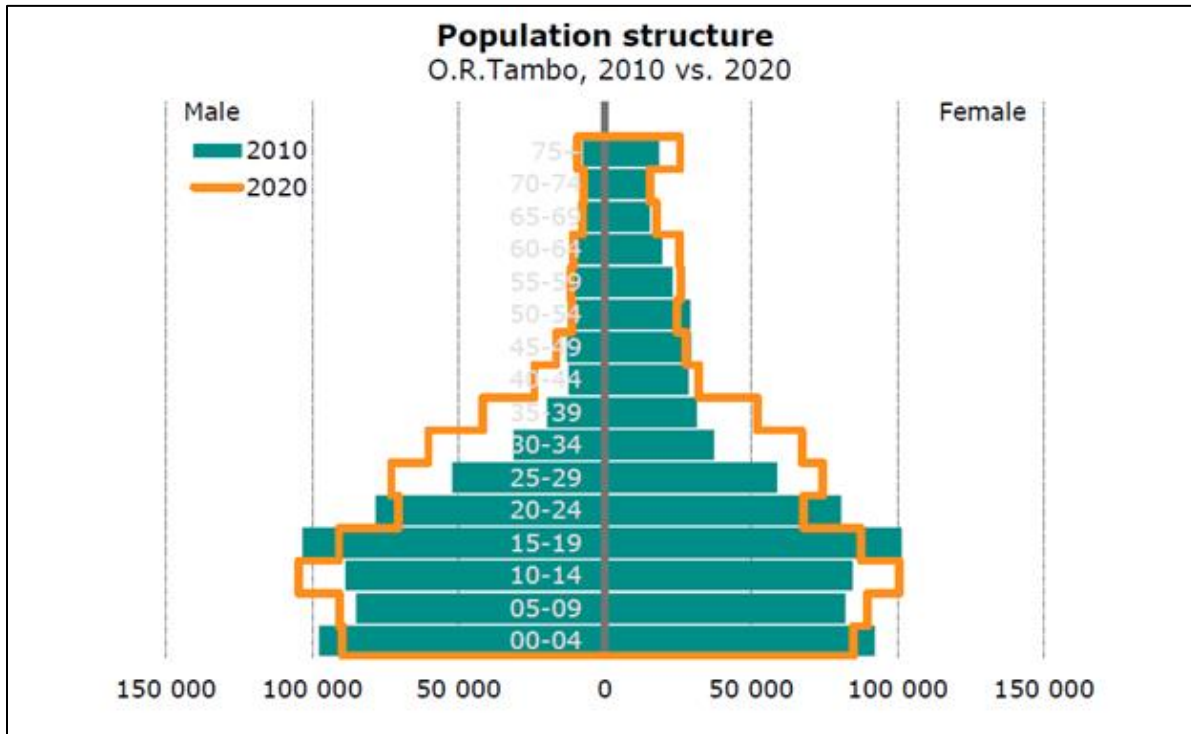


Figure 16: OR Tambo District Municipality Population Pyramid, 2010 vs 2020

5.4.2 Economy

In 2020, the O.R. Tambo District Municipality's GDP was R 49.6 billion, up from R 25.7 billion in 2010, accounting for 11.72% of the Eastern Cape Province's GDP of R 423 billion. This marked an increase from a 10.66% share in 2010. The municipality contributed 0.90% to South Africa's GDP, which totalled R 5.52 trillion in 2020. This contribution is relatively stable compared to 2010 when it constituted 0.84% of the national GDP.

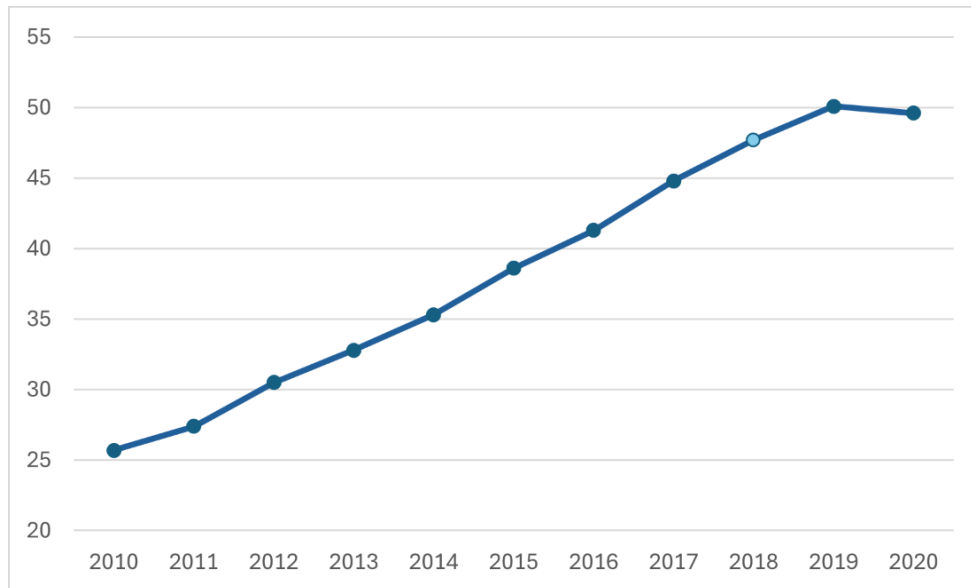


Figure 17: OR Tambo District Municipality GDP (Billions)

In 2020, the community services sector was the largest within the O.R. Tambo District Municipality, contributing R 19 billion or 41.1% to the total GVA. The finance sector was the second largest contributor at 22.7%, followed by the trade sector at 19.1%. The smallest contribution came from the mining sector, which added R 77.4 million or 0.17% to the total GVA.

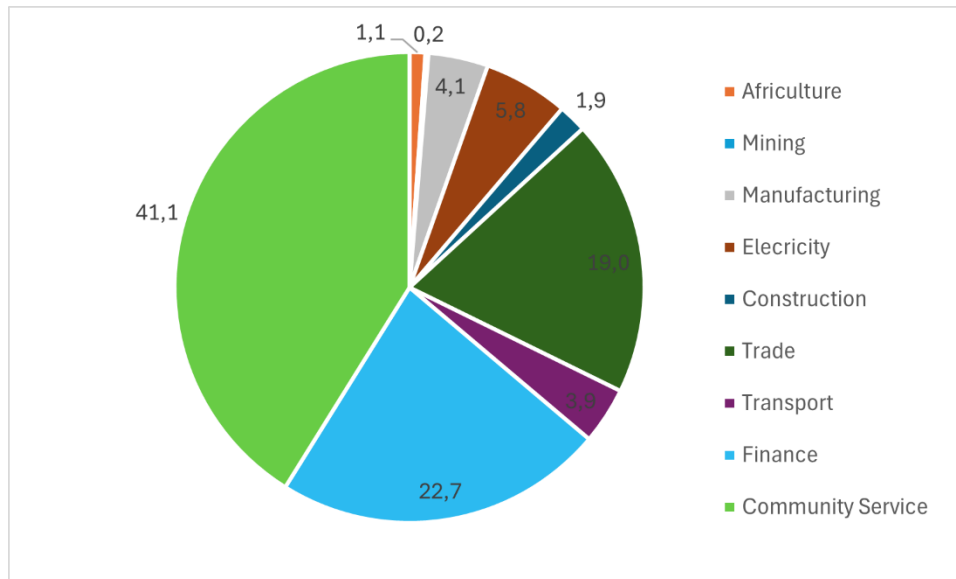


Figure 18: OR Tambo Gross Value Added by Economic Sector, 2019

In smaller and more rural municipalities, the community sector, encompassing government services, is typically a major contributor to Gross Value Added (GVA). Within the O.R. Tambo District Municipality, the King Sabata Dalindyebo Local Municipality is the leading contributor to the community services sector, accounting for 62.14% of the district's total.

5.4.3 Employment and Unemployment

In 2020, O.R. Tambo employed 170,000 people, accounting for 12.60% of the Eastern Cape Province's total employment (1.35 million) and 1.09% of South Africa's total (15.5 million). From 2010 to 2020, employment in O.R. Tambo grew at an average annual rate of 1.31%.

Table 8: Employment by Economic Sector in ORTDM

Economic Sector	Employment
Agriculture	5,680
Mining	206
Manufacturing	4,620
Electricity	563
Construction	17,700
Trade	40,000
Transport	7,980
Finance	18,600
Community Service	61,00
Households	13,300
Total	170,000

O.R. Tambo District Municipality employs 170,000 people. In 2020, the community services sector was the largest employer, with 61,000 people or 36.0% of the district's total employment. The trade sector followed with 40,000 employees (23.6%). The sectors with the lowest employment were mining, with 206 employees (0.1%), and electricity, with 563 employees (0.3%).

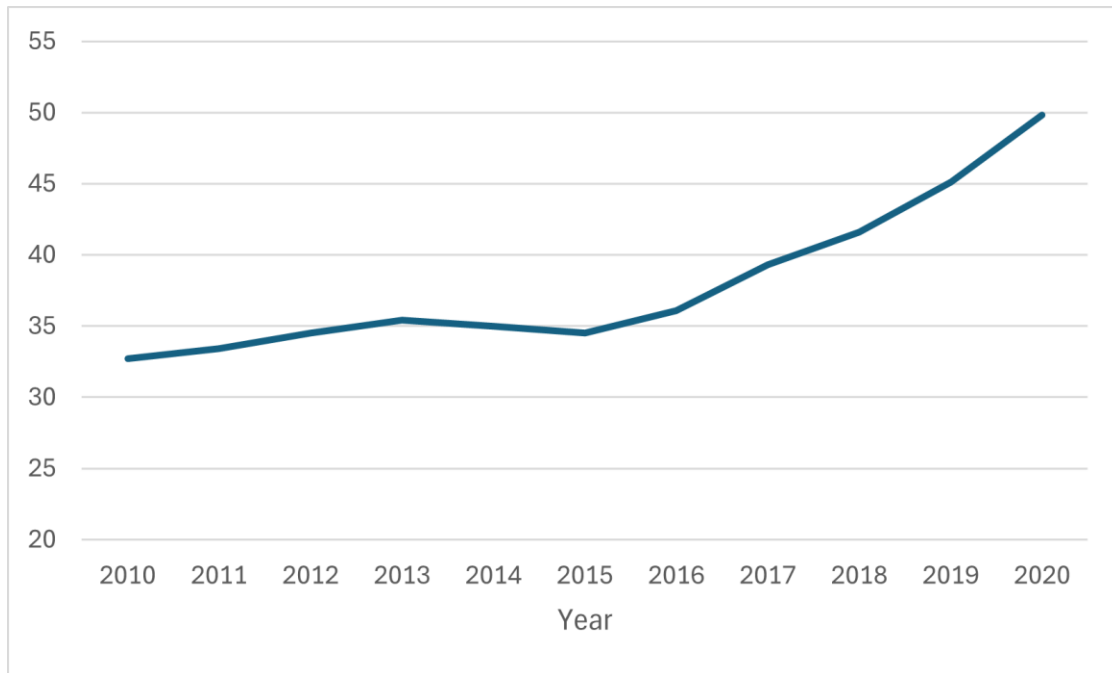


Figure 19: OR Tambo Unemployment Rate, 2010-2020

In 2020, the unemployment rate in O.R. Tambo District Municipality (based on the official definition of unemployment) was 49.79%, which is an increase of 17.1 percentage points. The unemployment rate in O.R. Tambo District Municipality is higher than that of Eastern Cape. The unemployment rate for South Africa was 29.93% in 2020, which is a increase of -5 percentage points from 24.93% in 2010.

5.4.4 Education

In the O.R. Tambo District Municipality from 2010 to 2020, the number of people without any schooling decreased at an average annual rate of -3.82%. Conversely, the population with only 'matric' rose from 94,800 to 140,000. Those holding 'matric plus a certificate/diploma' grew at an average annual rate of 5.71%, and individuals with 'matric and a bachelor's degree' increased at a rate of 3.58% annually. These trends indicate an overall enhancement in educational attainment, with more individuals achieving 'matric' or higher education levels.

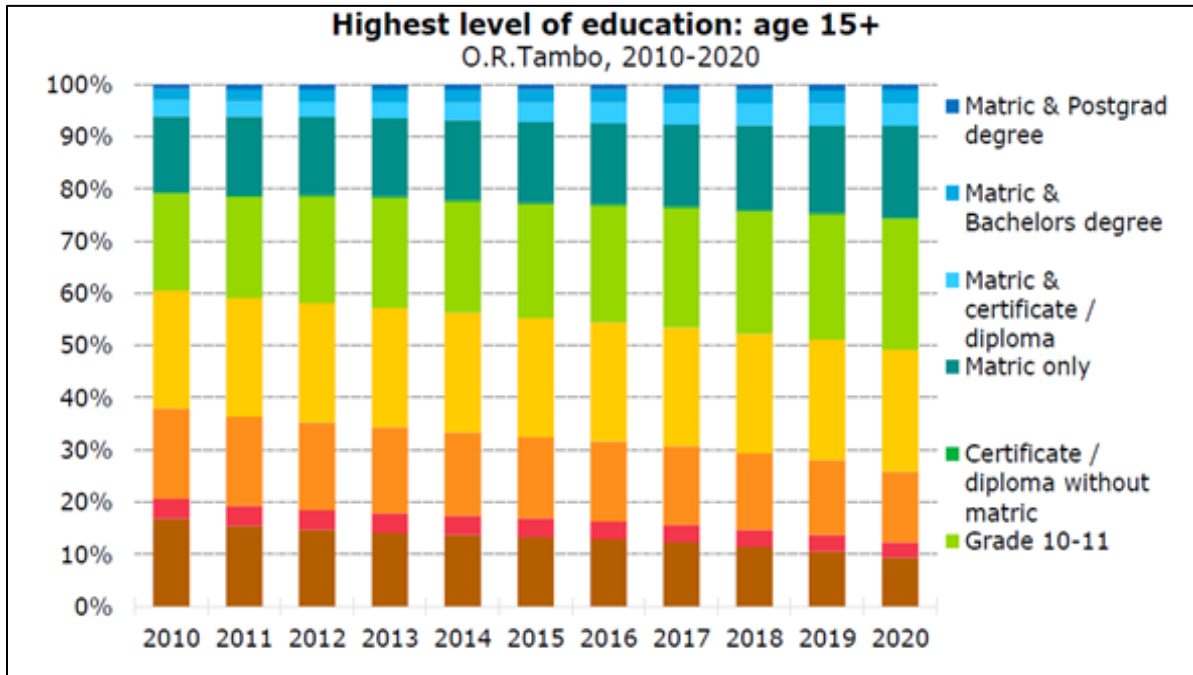


Figure 20: Education Levels in OR Tambo, 2010-2020

The proposed Ghanja Stockpile project is likely to influence the socio-economic profile of the ORTDM. As one of the poorest areas in the Eastern Cape, ORTDM faces substantial economic challenges, including a high unemployment rate of 49.79% in 2020. The district's economy is primarily driven by the community services sector, which contributed 41.1% to the total GVA in 2020, followed by the finance and trade sectors. The introduction of the mining and stockpiling operation can potentially provide employment opportunities, thereby addressing the high unemployment rate. This project could offer direct jobs during the construction and operational phases and stimulate local businesses by increasing demand for goods and services. Additionally, the project's focus on temporary and mobile infrastructure aligns with the region's need for sustainable development, minimising long-term environmental impact. By providing skill development and capacity-building opportunities, the project can enhance the educational and employment prospects for the local population, supporting the district's socio-economic development goals. Overall, the Ghanja Stockpile project has the potential to contribute positively to the economic diversification and resilience of ORTDM, addressing key socio-economic challenges while maintaining a balance with environmental and social considerations.

5.5 Ingquza Hill Local Municipality (IHLM)

Ingquza Hill Local Municipality (IHLM), one of five local municipalities within the ORTDM is surrounded by Mbizana Local Municipality to the north, Port St Johns to the south, Ntabankulu to the northwest,

and Nyandeni to the southwest, with the Indian Ocean to the east. It encompasses the magisterial areas of Lusikisiki and Flagstaff. Covering a surface area of 2477 km² and is divided into 32 wards.

5.5.1 Population and Economy

IHLM has a total population of 320,000, making up 21% of the population for ORTDM. In 2020 IHLM saw the population distribution of 169,030 females and 150,693 males, showing a higher female ratio (52.87%) compared to males (47.13%). This gender disparity suggests high male outmigration.

In 2020, the GDP was R 4.38 billion, up from R 2.62 billion in 2010, accounting for 8.82% of the ORTDM GDP of R 49.6 billion. This share increased from 10.20% in 2010. Ingquza Hill contributed 1.03% to the GDP of the Eastern Cape Province and 0.08% to South Africa's total GDP, which was R 5.52 trillion in 2020. Its contribution to the national economy was slightly down from 0.09% in 2010 and 2012.

Table 9: Ingquza Hill Local Municipality GDP

Year	Ingquza Hill (in billions)	O.R. Tambo (in billions)	Ingquza Hill as % of District
2010	2.6	25.7	10.2%
2011	2.8	27.4	10.1%
2012	3.1	30.5	10.1%
2013	3.3	32.8	9.9%
2014	3.5	35.3	9.8%
2015	3.7	38.6	9.6%
2016	3.9	41.3	9.5%
2017	4.2	44.8	9.3%
2018	4.4	47.7	9.2%
2019	4.5	50.1	9.0%
2020	4.5	49.6	8.8%

In 2020 with the GDP of making it the third largest contributor to the GDP of the O.R. Tambo District Municipality. Its relative economic size compared to other regions within the district has remained consistent since 2010. However, its share of the district's GDP decreased from 10.2% in 2010 to 8.8%

in 2020. Over the decade from 2010 to 2020, Ingquza Hill experienced an average annual GDP decline of -0.4%, ranking it fourth in growth compared to its peer regions in constant 2010 prices.

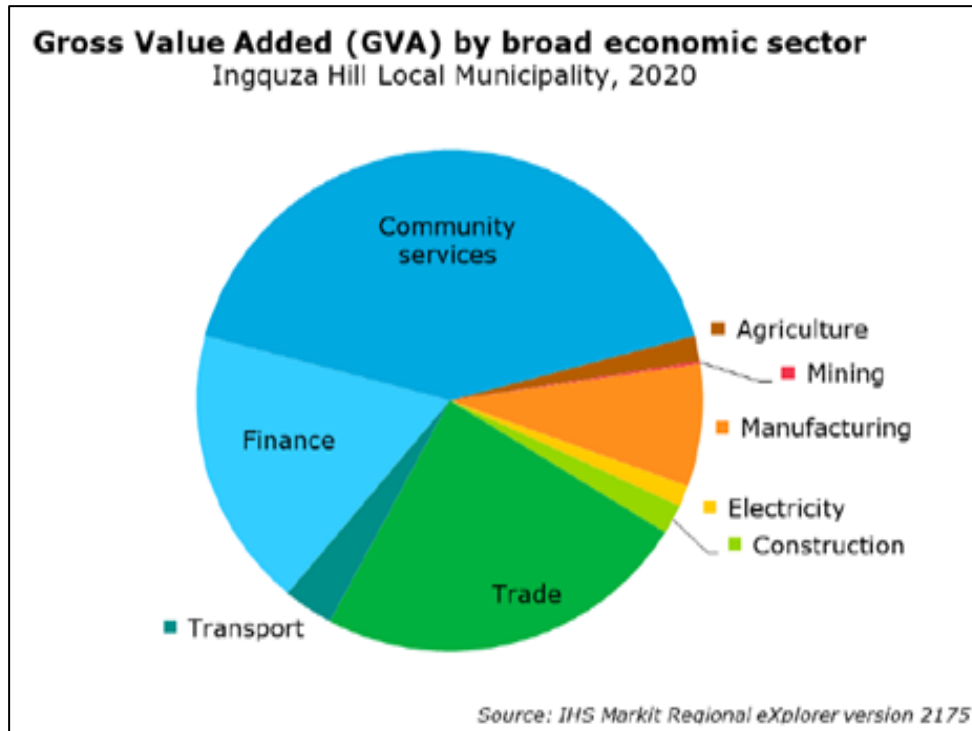


Figure 21: Ingquza Hill Local Municipality Gross Value Added by Economic Sector, 2020

In 2020, the community services sector dominated the IHLM economy, accounting for R 1.66 billion or 41.7% of the total GVA. The trade sector followed as the second largest at 24.0%, with the finance sector contributing 18.1%. The mining sector, meanwhile, was the smallest, contributing just R 6.64 million or 0.17% of the total GVA.

5.5.2 Employment and Unemployment

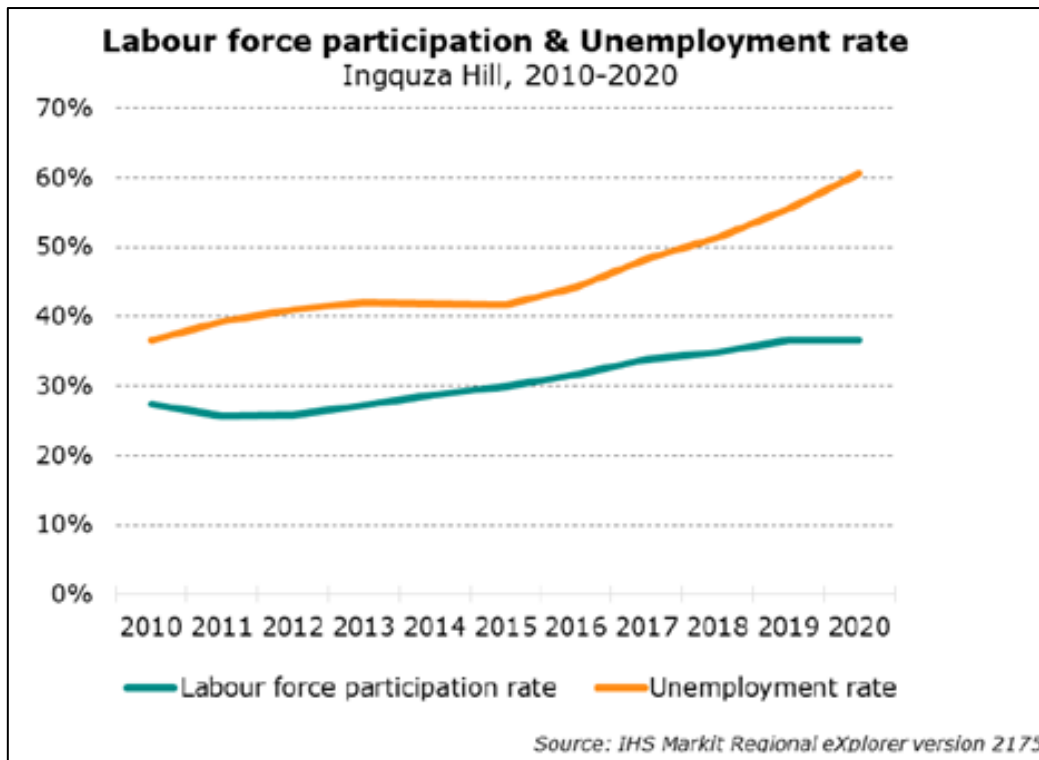


Figure 22: Ingquza Hill Local Municipality Labour Force and Unemployment Rate

In 2020, the labour force participation rate in IHLM was 36.6%, showing a significant increase from 27.5% in 2010. However, the unemployment rate, which serves as an indicator of the labour force's employment success, rose from 36.6% in 2010 to 60.5% in 2020. The narrowing gap between the labour force participation rate and the unemployment rate suggests a deteriorating employment situation in IHLM.

5.5.3 Education

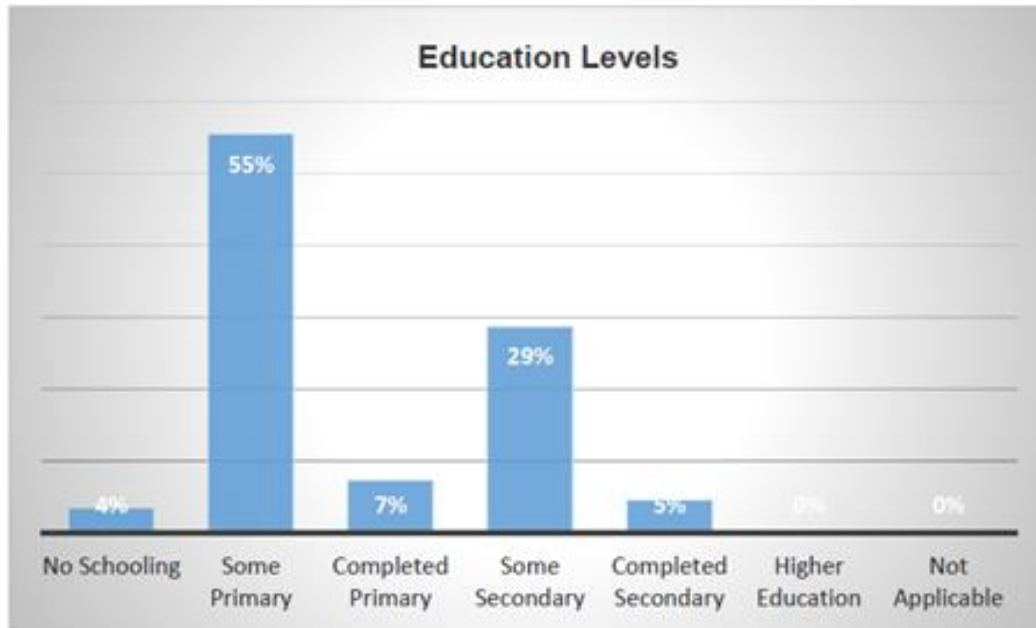


Figure 23: Ingquza Hill Local Municipality Education Attainment

In Ingquza Hill, about 32,000 residents have no formal education, and an additional 18,000 have not completed their matric/grade 12. The region struggles with high illiteracy and low educational attainment; only 2.4% of the population hold a matric certificate, and merely 1.4% have post-matric qualifications. These educational deficits align closely with the area's issues of low household income, high unemployment rates, and a low human development index. Furthermore, functional literacy rates stand at 48%, mirroring the district's average, highlighting significant educational challenges within the municipalities.

The proposed Ghanja Stockpile project could impact the socio-economic profile of IHLM. IHLM, one of five local municipalities within the OTRDM, faces considerable economic challenges, including a high unemployment rate of 60.5% in 2020 and substantial educational deficits. The municipality's economy is primarily driven by the community services sector, which contributed 41.7% to the total GVA in 2020. The introduction of the mining and stockpiling operation has the potential to provide immediate and long-term employment opportunities, stimulating local businesses through increased demand for goods and services. This economic activity could lead to improved educational and training opportunities, potentially uplifting the overall socio-economic condition of the area. However, the development may also pose environmental risks, such as pollution and habitat loss, which could adversely affect key local industries like agriculture and fisheries. Additionally, increased industrial activity could lead to health concerns related to dust and noise pollution, and the arrival of workers from other areas might strain

local infrastructure and services. These dynamics underscore the need for careful planning and management to balance economic gains with environmental sustainability and social equity, ensuring that the benefits of the project are maximised while mitigating potential adverse impacts.

5.6 Stakeholder Engagement

Stakeholder engagement is a critical component of the SEIA process. It provides an opportunity for stakeholders to express their views, concerns, and suggestions regarding the proposed project. The engagement process for this report was designed to be inclusive, transparent, and respectful of all participants.

The stakeholder engagement process for this report included the following steps:

- **Stakeholder Identification:** We began by identifying a comprehensive list of stakeholders who could potentially be affected by or have an interest in the proposed project. This list included local community members, local and regional government officials, representatives from the mining sectors, environmental and socio-economic advocacy groups, and others.
- **Information Dissemination & Stakeholder Consultation:** We disseminated information about the proposed project and the socio-economic impact assessment process to identified stakeholders. This was done through consultation and surveys. These surveys provided a platform for stakeholders to express their views, concerns, and suggestions.
- **Feedback Incorporation:** We carefully reviewed all feedback received during the stakeholder consultation process. This feedback was used to inform the SEIA and to develop appropriate mitigation strategies.
- **Ongoing Engagement:** We are committed to maintaining an open dialogue with stakeholders throughout the project lifecycle. We will continue to provide updates on the project's progress and to seek feedback on proposed mitigation strategies.

6 Key Socio-Economic Impacts

This Chapter provides a detailed description and evaluation of the potential socio-economic impacts that have been identified for the detailed design and construction, operation, and decommissioning phases, of the proposed Ghanja Stockpile.

This assessment considered the following points:

- The nature, extent, and significance of the features within the socio-economic landscape being considered.
- The existing disturbance already present within the socio-economic landscape (i.e. mining activities and other industrial developments/infrastructure).

Socio-economic impacts are expected to occur during both the construction and operation phases of the Ghanja Stockpile. The status of the impacts will either be positive or negative and either mitigation or enhancement measures are recommended for the management of the impacts depending on the status of the impacts.

6.1 Assessment Criteria

Direct, indirect, and cumulative impacts associated with the projects must be assessed in terms of the following criteria:

- The nature, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- The extent, wherein it will be indicated whether the impact will be local (limited to the immediate area or site of development) or regional, and a value between 1 and 5 will be assigned as appropriate (with 1 being low and 5 being high).
- The duration, wherein it will be indicated whether:
 - the lifetime of the impact will be of a very short duration (0 – 1 years) – assigned a score of 1.
 - the lifetime of the impact will be of a short duration (2 – 5 years) – assigned a score of 2.
 - medium-term (5 – 15 years) – assigned a score of 3.
 - long term (> 15 years) – assigned a score of 4; or
 - permanent – assigned a score of 5.
- The magnitude, quantified on a scale from 0 – 10, where 0 is small and will have no effect on the environment, 2 is minor and will not result in an impact on processes, 4 is low and will cause

a slight impact on processes, 6 is moderate and will result in processes continuing but in a modified way, 8 is high (processes are altered to the extent that they temporarily cease), and 10 is very high and results in complete destruction of patterns and permanent cessation of processes.

- The probability of occurrence, which shall describe the likelihood of the impact actually occurring. Probability will be estimated on a scale of 1 – 5, where 1 is very improbable (probably will not happen), 2 is improbable (some possibility, but low likelihood), 3 is probable (distinct possibility), 4 is highly probable (most likely) and 5 is definite (impact will occur regardless of any prevention measures).
- The significance, which shall be determined a synthesis of the characteristics described above and can be assessed as low, medium, or high.
- The status, which will be described as either positive, negative, or neutral.
- The degree to which the impact can be reversed.
- The degree to which the impact may cause irreplaceable loss of resources.
- The degree to which the impact can be mitigated.

The **significance** is calculated by combining the criteria in the following formula:

$$S = (E+D+M) P$$

S = Significance weighting

E = Extent

D = Duration

M = Magnitude

P = Probability

The **significance weightings** for each potential impact are as follows:

- < 30 points: Low (i.e., where this impact would not have a direct influence on the decision to develop in the area),
- 30 – 60 points: Medium (i.e., where the impact could influence the decision to develop in the area unless it is effectively mitigated),
- > 60 points: High (i.e., where the impact must have an influence on the decision process to develop in the area).

The summarising of assessment impacts in a prescribed table format including the rating values as per above criteria. Measures for inclusion in the Environmental Management Programme.

7 Impacts and Assessment

This chapter aims to rate the significance of the identified potential impacts pre-mitigation and post-mitigation. The potential impacts identified in this section are a result of both the environment in which the Project activity takes place, as well as the activity itself. The identification of potential impacts is performed by determining the potential source, possible pathways, and receptors. In essence, the potential for any change to a resource or receptor (i.e., environmental aspect) brought about by the presence of a Project component or by a Project-related activity has been identified as a potential impact.

The potential impacts are discussed per environmental feature/aspect and according to each phase of the Project i.e., the Construction, Operational and Decommissioning/ Post Closure Phases. The significance, probability and duration of these potential impacts have been assessed based on the detailed specialist studies undertaken on the sensitivity of the receiving environment.

The SEIA adheres to local best practice guidelines, ensuring that the assessment is grounded in the specific socio-economic and cultural context of the Project area.

It is important to note that the Client, has a consistent approach towards socio-economic and labour commitments across its operations.

- The establishment is anticipated to bring both negative and positive impacts. The project creates jobs, enhances infrastructure, and contributes to local economic activity. It promotes sustainability through responsible resource management and offers opportunities for local community involvement and development. Overall, the project contributes to the area's socio-economic well-being and sustainable development. The issues identified in this chapter will be further explored and assessed in the subsequent impact assessment section of the SEIA. Finally, the project can contribute to broader economic development goals by providing essential raw materials needed for regional industries, thereby supporting economic growth and stability. Additionally, through local infrastructure improvements and job creation, the project helps in reinforcing the economic base of the area, which indirectly supports national economic objectives.
- The construction workers for the stockpile are likely to be sourced from the nearby communities. This could provide short-term employment opportunities for local residents, potentially leading to positive socio-economic impacts such as increased income and improved living standards.

It is important to distinguish between the direct and broader benefits to the surrounding community when considering the project's impact.

7.1 Determination of Significance of Impacts

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale (i.e., site, local, national, or global), whereas intensity is defined by the severity of the impact e.g., the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in Section 6.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

7.2 Impacts and Risk Assessment

The EIA Methodology assists in evaluating the overall effect of a proposed activity on the environment. Determining of the significance of an environmental impact on an environmental parameter is determined through a systematic analysis.

7.2.1 Construction Phase

The majority of socio-economic impacts associated with the project are anticipated to occur during the construction phase of the development and are typical of the type of socio-economic impacts generally associated with construction activities. These impacts will be temporary and short-term (~5 years) but could have long-term effects on the surrounding socio-economic environment if not planned or managed appropriately. It is therefore necessary that the detailed design phase be conducted in such a manner so as not to result in permanent socio-economic impacts associated with the ill-placement of project components or associated infrastructure or result in the mismanagement of the construction phase activities.

The positive and negative social impacts identified and assessed for the construction phase includes:

Potential positive impacts:

- Creation of Employment and Business Opportunities;
- Economic Multiplier Effects;
- Skills Development; and
- Growth of the Local Communities.

Potential negative impacts:

- Impacts Associated with the Presence of Construction Workers on Site;

- Threat to Safety and Security of Farmers Associated with the Presence of Construction Workers on Site;
- Pressure on Local Services;
- Visual Impact; and
- Impact of Heavy Vehicles, including Damage to Roads, Safety, Noise and Dust.

Table 10: Construction Phase Impact Tables for the Ghanja Stockpile

Impact: Employment Opportunities and Skills Development.		
<p>Nature: The region surrounding the Ghanja Stockpile site primarily consists of agricultural activities, with some local businesses and light industrial operations. The local population includes unskilled labourers, many of whom are engaged in subsistence farming, and a smaller proportion of semi-skilled workers. The construction of the Ghanja Stockpile is expected to create approximately 8 employment opportunities, including skilled, semi-skilled, and unskilled positions. This presents an opportunity not only for job creation but also for skills development in the local workforce.</p>		
	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Minor (2)	Low (4)
Probability	Probable (3)	Highly Probable (4)
Significance	Low (18)	Low (28)
Status	Positive	Positive
Reversibility	Yes – Loss of Employment	Yes – Loss of Employment
Irreplaceable loss of resources?	Impact will improve the Job Market	Impact will improve the Job Market
Can impacts be mitigated?	Enhanced	Enhanced
Enhancement Measures		
<p>To enhance the local employment, skills development and business opportunities associated with the construction phase, the following measures should be implemented:</p> <ul style="list-style-type: none"> The developers be committed to involving and benefiting the communities surrounding the development, contributing to their development and growth. 		



- Training and skills development programmes should be offered to employees of the development prior to the commencement of the construction phase.
- The communities which are most in need of employment on a local level should be considered for employment before outsourcing.
- Engage proactively with local stakeholders and implement transparent hiring practices to ensure equitable distribution of employment opportunities.

Cumulative Impact

The combined effect of the project's employment opportunities, skills development, and enhancement measures will result in a strengthened local job market, improved skills base, and overall socio-economic upliftment of the community. The initiatives to eliminate unfair discrimination, targeted training, and development programs, and the emphasis on portable skills training will further enhance the long-term benefits to the community, ensuring sustainability and growth.

Residual Opportunities

- Initiatives to eliminate unfair discrimination in employment.
- Recruit and select suitably qualified individuals from the designated groups.
- Employees from designated groups who have been identified in the talent pool should be advanced and accelerated through targeted training and development programs.
- Assist employees in obtaining an initial vocational education and pre-qualification, as well as additional education and training that refreshes knowledge, skills, work and life competencies that are critical for overall development.
- Provide portable skills training to employees who express an interest in obtaining such training, with a special emphasis on employees who have been incapacitated or retrenched, in order for them to remain economically active, employable, or self-sustaining in their communities.
- Growth of talent is facilitated, thereby providing opportunities for all employees to contribute to their full potential.

Impact: Economic Multiplier Effects.		
<p>Nature: Economic multiplier effects from the use of local goods and services opportunities include but are not limited to, the provision of construction materials and equipment, and workforce essentials such as services, safety equipment, ablution, accommodation, transportation, and other goods. The increase in demand for goods and services may stimulate local business and local economic development (however locally sourced materials and services may be limited due to availability). There is likely to be a direct increase in industry and an indirect increase in secondary businesses.</p>		
	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Minor (2)	Low (4)
Probability	Probable (3)	Highly Probable (4)
Significance	Low (18)	Low (28)
Status	Positive	Positive
Reversibility	Yes – Loss of economic benefits	Yes – Loss of economic benefits
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Enhancement Measures		
<ul style="list-style-type: none"> • Preference is given to suppliers that are local to the operation where the service will be consumed. • Establishing liaison and communication structures with the district and local government structures. • Liaise with the local governmental structures and municipal authorities in the labour - sending communities to ensure that group development initiatives are integrated into the economic and development plans of those areas. 		

- It is recommended that a local procurement policy be adopted by the developer to maximise the benefit to the local economy, where feasible.
- Create job opportunities, boost local economies by supporting business activities, and contribute to government tax revenues through the development of the Ghanja Stockpile.
- Prior to the start of the construction contractor procurement, a database of local companies, specifically Historically Disadvantaged (HD) companies, that qualify as potential service providers (e.g., construction companies, catering companies, waste collection companies, security companies, etc) should be identified and informed about the tender process and invited to bid on project-related work, if applicable.
- Engage with local authorities and business organisations to investigate the feasibility of obtaining construction materials, goods, and products from local suppliers, where possible.

Cumulative Impact

The project's economic multiplier effects, combined with the enhancement measures, will lead to a sustained boost in the local economy. The increased demand for local goods and services will not only benefit primary suppliers but will also have a ripple effect, benefiting secondary businesses and service providers. Over time, this will lead to a more robust and diversified local economy, with increased resilience and capacity for growth.

Residual Opportunities

- Improved local service sector, growth in local business.
- Community development and stimulation of the local economy.
- Growth in the local markets.

Impact: Influx of Jobseekers and Change in Population.

Nature: An influx of people looking for employment or other economic opportunities could result in increased pressure being placed on economic and socio-economic infrastructure, and even a modest change in the local population. Population change refers to the size, structure, density as well as demographic profile of the local community.

An influx of jobseekers into an area, could lead to a temporary increase in the level of crime, cause socio-economic disruption and put pressure on basic services. It could also potentially create conflict between locals and outsiders due to potential differences in cultural and ethnic composition. A further negative impact that could result due to an influx of jobseekers into an area is an increase in unemployment levels due to an oversupply of available workforce, particularly with respect to semi- and unskilled workers.

	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Low (4)	Minor (2)
Probability	Probable (3)	Improbable (2)
Significance	Low (27)	Low (14)
Status	Negative	Negative
Reversibility	Medium	High
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes	Yes

Mitigation Measures

- The communities which are most in need of employment on a local level should be considered for employment before outsourcing.

- Making the surrounding landowners aware of the dangers associated with the influx of workers during the construction period.
- Encourage employees to stop working when a workplace is considered unsafe and/or to prevent unsafe actions.
- Education, Training and Development Services must be implemented for the local community.
- Access in and out of the construction area should be strictly controlled.
- A Community Liaison Officer should be appointed.

Cumulative Impact

The combined effects of the influx of jobseekers and the modest change in population, even with mitigation measures in place, could lead to a strain on local resources, potential socio-economic disruptions, and a temporary increase in crime rates. The cumulative impact also encompasses the potential for heightened social tensions due to perceived inequalities in job distribution and benefits from the project. However, with the proposed mitigation measures, the severity of these impacts can be reduced, leading to a more controlled and manageable influx, and ensuring that the local community benefits from the project in a sustainable manner.

Residual Risks

Potential for conflict: If there are perceptions of unfair hiring practices or unequal distribution of project benefits, this could lead to social tensions or conflicts, which could have implications for local safety and security. This is a potential residual impact as it is dependent on perceptions and social dynamics, which can be difficult to fully mitigate.

Impact: Safety and Security Impacts.

Nature: Temporary increase in safety and security concerns associated with the construction phase.

The development of the Ghanja Stockpile will result in an increase of foot traffic in an area which is relatively quiet, as experienced during the site visit, a lot of the neighbouring properties may not be aware of the risks associated with the influx of individuals and may be subjected to safety and security risks.

Existing roads will be used, wherever possible, to access the project site and development area. Access to the development area is provided via Ghanja Road, bordering the north of the stockpile area.; From this existing access road, a dirt road of <600m will be developed from Ghanja Road to the quarry area to gain access to the mining permit area as well as the stockpile area.

Furthermore, while the project aims to employ local residents, the potential arrival of job seekers from surrounding areas could temporarily elevate crime rates and social disruption.

	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Low (4)	Low (4)
Probability	Probable (3)	Improbable (2)
Significance	Low (21)	Low (14)
Status	Negative	Negative
Reversibility	Low	Low
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes	Yes

Mitigation Measures

- Safety awareness and training as well as positive behaviour reinforcement.

- Improving system monitoring and analysis to improve risk management.
- Making the surrounding landowners aware of the dangers associated with the influx of workers during the construction period.
- Identifying abandoned buildings and utilising them or ensuring they cannot be used for malicious activities.
- Ensuring that access cannot be gained to surrounding properties.
- Encourage employees to stop working when a workplace is considered unsafe and/or to prevent unsafe actions.
- Access in and out of the construction area should be strictly controlled.
- The contractor must provide adequate firefighting equipment on site and provide firefighting training to selected construction staff.
- Have clear rules and regulations for access to the proposed site to control loitering.
- A comprehensive employee induction programme would cover land access protocols, fire management and road safety must be prepared.
- A Community Liaison Officer should be appointed.
- A method of communication should be implemented whereby procedures to lodge complaints are set out in order for the local community to express any complaints or grievances with the construction process.

Cumulative Impact

The combined effects of the construction activities, especially the movement of heavy vehicles and influx of workers, can lead to heightened safety and security concerns in the area. This includes potential increases in crime rates, disturbances to local communities, and strain on local infrastructure. Even with mitigation measures in place, the cumulative impact of these activities can lead to a perceived decrease in the safety and security of the area, affecting the well-being and peace of mind of local residents.

Residual Risks

- Potential for increased crime: Despite mitigation measures, there's always a risk of a temporary spike in crime rates due to the influx of outsiders and increased activity in the area.
- Disturbance to local communities: The presence of construction activities and workers can lead to disturbances in daily life, affecting the well-being of local residents.

Impact: Increased Pressure on Local Services/Resources		
Nature: Added pressure on economic and social infrastructure during construction as a result of the potential modest-migration of people.		
	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Low (4)	Minor (2)
Probability	Probable (3)	Improbable (2)
Significance	Low (21)	Low (10)
Status	Negative	Negative
Reversibility	Medium	High
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes	Yes
Mitigation Measures		
<ul style="list-style-type: none"> ● It is necessary to appoint a Community Liaison Officer. A method of communication should be implemented, with procedures for filing complaints outlined, so that the local community can express any complaints or grievances about the construction process. ● Current procurement channels set up by the mine should be utilised to reduce any complications which may arise from the development, if required and cannot be supplied from local businesses. 		
Cumulative Impact		
<p>The cumulative impact of increased pressure on local services and resources due to the construction phase is likely to be subtle, impacting local infrastructure gradually. While the project itself may not significantly strain resources, the combination of ongoing local activities and additional demands from the construction could lead</p>		

to modest increases in the use of services such as public transportation, healthcare, and utilities. These incremental demands are not expected to overwhelm the existing infrastructure but may lead to slight delays or increased usage rates that require monitoring. Proactive management and community liaison efforts are anticipated to effectively address and mitigate these impacts, ensuring that service levels remain adequate and community well-being is maintained without significant long-term consequences.

Residual Risks

Possibility of outside workers remaining in the area after construction is completed and subsequent pressures on local infrastructure.

Impact: Nuisance Impacts (Noise and Dust)		
<p>Nature: Construction activities will result in the generation of noise and dust; the area is situated in a relatively undisturbed area which is not frequently subjected to dust and noise disturbances therefore all possible measures must be made to mitigate these impacts.</p>		
	Without Mitigation	With Mitigation
Extent	Local (2)	On-Site (1)
Duration	Very Short-Term (1)	Very Short-Term (1)
Magnitude	Moderate (6)	Low (4)
Probability	Highly Probable (4)	Probable (3)
Significance	Medium (36)	Low (18)
Status	Negative	Negative
Reversibility	High	High
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Yes	Yes
Mitigation Measures		
<ul style="list-style-type: none"> ● During construction, care should be taken to ensure that noise from construction vehicles and plant equipment does not intrude on the nearby communities. Plant equipment such as generators, compressors, concrete mixers, and vehicles should be kept in good working order and, where possible, equipped with effective exhaust mufflers. ● The movement of construction vehicles on the site should be confined to agreed access road/s. ● Heavy vehicle movement during the construction phase should be timed (where possible) to avoid times of the week, such as weekends, when the volume of traffic on the access roads may be higher. ● Dust suppression measures should be implemented on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers. 		

Cumulative Impact

The combined effects of noise and dust from construction activities can lead to a significant disturbance for local residents and other sensitive receptors. Over time, these nuisances can accumulate, leading to a decrease in the quality of life for those living or working nearby. The cumulative impact of these nuisances can also affect local ecosystems, particularly if dust settles on nearby water sources or vegetation.

Residual Risks

Noise and dust generation will remain an issue irrespective of the Ghanja Stockpile development.

7.2.2 Operational Phase

It is anticipated that the Ghanja Stockpile will operate as long as required by the development.

The potential positive and negative socio-economic impacts that could arise because of the operation of the proposed project include the following:

- Direct and indirect employment opportunities.
- Contribution to local economic development and socio-economic upliftment;
- Infrastructure use and maintenance; and
- Impacts associated with the loss of agricultural land.

Table 11: Operational Phase Impact Tables for Ghanja Stockpile

Impact: Direct and Indirect Employment Opportunities.		
<p>Nature: The operational phase of the Ghanja Stockpile is expected to create both direct and indirect employment opportunities. Although the exact number is not determined, these roles will likely vary from operational management to maintenance, security, and logistical support. Given the nature of the project, a significant portion of these jobs may be suitable for low-skilled and semi-skilled workers, with a smaller percentage requiring specialized skills. Job roles might include equipment operators, administrative staff, site managers, and support services such as catering and cleaning.</p>		
	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Short-term (2)	Short-term (2)
Magnitude	Minor (2)	Low (4)
Probability	Probable (3)	Highly Probable (4)
Significance	Low (21)	Medium (32)
Status	Positive	Positive
Reversibility	Low	Low

Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Enhancement Measures		
<ul style="list-style-type: none"> ● Local Hiring: Prioritise hiring from the local community for all available positions. This will ensure that the benefits of employment are directly felt within the local community. ● Skills Transfer: In cases where highly skilled expertise is required, provide provisions for skills transfer. This will facilitate knowledge sharing within the local workforce and enhance the overall skill level of the community. ● Support for Local Businesses: Encourage the involvement of local businesses in providing materials, goods, and services during the operational phase of the project. This can stimulate entrepreneurial growth and create indirect job opportunities. ● Community Engagement: Maintain open lines of communication with the local community through the development's existing community liaison officer. This will ensure that job opportunities are communicated effectively and that local residents are given fair consideration in the hiring process. ● Fair Labour Practices: Align the project with the development's social labour plan to ensure fair labour practices and safe working conditions for all workers. 		
Cumulative Impact		
<p>The ongoing operation of the Ghanja Stockpile will provide stable employment opportunities over its expected lifespan, contributing to economic stability and growth in the region. This steady employment not only supports the workers and their families but also stimulates local businesses and service providers by increasing local spending power, thereby enhancing the overall economic vitality of the community.</p>		
Residual Opportunities		
<ul style="list-style-type: none"> ● Economic Upliftment: The consistent employment opportunities during the operational phase will lead to an upliftment in the overall economic status of the region. This can result in improved living standards the local community. ● Skills Development: The emphasis on skills transfer and training will ensure that the local workforce is better equipped for future job opportunities, even beyond the lifespan of the project. This can lead to a more skilled and competitive workforce in the region. 		

-
- **Entrepreneurial Growth:** With the support for local businesses and the increase in consumer spending, there's potential for entrepreneurial growth. Local entrepreneurs can capitalize on the increased demand for goods and services, leading to the establishment of new businesses and further job creation.

Impact: Economic Multiplier Effects.		
<p>Nature: Economic multiplier effects from the sustained operation and maintenance of the Ghanja Stockpile present various opportunities. These include, but are not limited to, the provision of maintenance materials and equipment, ongoing workforce essentials such as services, safety equipment, ablution, accommodation, transportation, and other operational goods. The consistent demand for goods and services can bolster local businesses and foster local economic development. While there might be constraints due to the availability of local materials and services, the consistent demand can foster local economic development and indirectly support ancillary businesses.</p>		
	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Short-term (2)	Short-term (2)
Magnitude	Minor (2)	Low (4)
Probability	Probable (3)	Highly Probable (4)
Significance	Low (21)	Medium (32)
Status	Positive	Positive
Reversibility	Yes – Loss of economic benefits	Yes – Loss of economic benefits
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Enhancement Measures		
<ul style="list-style-type: none"> ● Preference is given to suppliers that are local to the operation where the service will be consumed. ● Establishing liaison and communication structures with the district and local government structures. ● Liaise with the local governmental structures and municipal authorities in the labour - sending communities to ensure that group development initiatives are integrated into the economic and development plans of those areas. 		

- The continuous review of the economic development of the project during the implementation process will ensure that the project does not become static but is revised in terms of changing needs and to ensure sustainability.
- It is recommended that a local procurement policy be adopted by the developer to maximise the benefit to the local economy, where feasible.
- Prior to the start of the construction contractor procurement, a database of local companies, specifically Historically Disadvantaged (HD) companies, that qualify as potential service providers (e.g., construction companies, catering companies, waste collection companies, security companies, etc) should be identified and informed about the tender process and invited to bid on project-related work, if applicable.
- Engage with local authorities and business organisations to investigate the feasibility of obtaining construction materials, goods, and products from local suppliers, where possible.

Cumulative Impact

The project's economic multiplier effects, combined with the enhancement measures, will lead to a sustained boost in the local economy. The increased demand for local goods and services will not only benefit primary suppliers but will also have a ripple effect, benefiting secondary businesses and service providers. Over time, this will lead to a more robust and diversified local economy, with increased resilience and capacity for growth.

Residual Opportunities

- Improved local service sector, growth in local business.
- Community development and stimulation of the local economy.
- Growth in the local markets.

Impact: Contribution to Local Economic Development and Socio-Economic Upliftment.

Nature: The Ghanja Stockpile's operational phase is poised to modestly contribute to local economic development primarily through sustained employment and routine engagement with local businesses for supply and service requirements. The project might also offer limited support for community initiatives and minor infrastructure improvements as part of its corporate social responsibility efforts, aimed at addressing specific local needs. These contributions are essential in a region that could benefit from even slight economic stimuli to encourage broader socio-economic improvements.

	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Short-term (2)	Short-term (2)
Magnitude	Low (4)	Moderate (6)
Probability	Probable (3)	Highly Probable (4)
Significance	Low(24)	Medium (40)
Status	Positive	Positive
Reversibility	Low	Low
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes

Enhancement Measures

- Collaboration with Local Authorities: The project developers should engage in close collaboration with local authorities to identify and prioritise infrastructure improvements that align with community needs and future growth.
- Public-Private Partnerships: Explore opportunities for public-private partnerships to fund and implement infrastructure projects. This can leverage resources and expertise from both the private and public sectors, ensuring sustainable and well-executed infrastructure improvements.

Cumulative Impact
The continuous operation of the Ghanja Stockpile, combined with its contribution to local economic development, will enhance the socio-economic fabric of the region. As the stockpile supports local businesses and contributes to infrastructure development, it will foster a more robust and resilient local economy. Over time, these contributions will improve community welfare and enhance overall quality of life.
Residual Opportunities
<ul style="list-style-type: none"> ● Strengthened Local Economy: The continuous investment in local economic development will stimulate business growth, create new job opportunities, and enhance the overall economic resilience of the region. ● Enhanced Community Welfare: The socio-economic upliftment initiatives will lead to improved education, healthcare, and social services, ensuring a better quality of life for local residents. ● Positioning for Future Growth: The region's reputation as a beneficiary of sustainable development initiatives will attract further investments and partnerships, ensuring continued growth and prosperity.

7.2.3 Decommissioning Phase

The decommissioning of the Ghanja Stockpile project will have some socio-economic impacts due to the end of operational activities. The potential positive and negative socio-economic impacts that could arise because of the decommissioning of the proposed project include the following:

- Loss of Employment Opportunities and Economic Changes;
- Environmental Restoration and Land Use Change; and
- Infrastructure Decommissioning and Waste Management.

Impact: Loss of Employment Opportunities and Economic Changes		
Nature: The cessation of operations will result in the direct loss of jobs sustained during the operational phase, impacting workers and their families. Local businesses that provided goods and services to the stockpile may also face reduced demand.		
	Without Mitigation	With Mitigation



Extent	Local (2)	Local (2)
Duration	Short-term (2)	Short-term (2)
Magnitude	Moderate (6)	Low (4)
Probability	Probable (3)	Probable (3)
Significance	Medium (30)	Low (24)
Status	Negative	Negative
Reversibility	Medium	Medium
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Mitigation Measures		
<ul style="list-style-type: none"> ● Re-skilling Programs: Introduce re-skilling and training programs for employees to transition into other employment sectors, reducing the impact of job losses. ● Economic Diversification Programs: Facilitate workshops and funding for local businesses to explore new markets. 		

Impact: Environmental Restoration and Land Use Change		
Nature: Decommissioning offers an opportunity to restore the land. However, improper management could lead to inadequate restoration, affecting local biodiversity and landscape aesthetics.		
	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Permanent (5)	Permanent (5)
Magnitude	Low (4)	Moderate (6)
Probability	Probable (3)	Highly Probable (4)
Significance	Medium (33)	Medium (52)
Status	Positive	Positive
Reversibility	Medium	Medium
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Mitigation Measures		
<ul style="list-style-type: none"> ● Comprehensive Rehabilitation Plan: Develop and implement a plan that includes soil restoration, replanting native vegetation, and monitoring ecological recovery. ● Community Involvement: Engage local communities in the restoration process to ensure alignment with local environmental and land use priorities. 		

Impact: Infrastructure Decommissioning and Waste Management		
Nature: The dismantling of stockpile infrastructure could generate waste, posing risks to the environment and community if not managed correctly.		
	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Short-term (2)	Very Short-term (1)
Magnitude	Moderate (6)	Low (4)
Probability	Probable (3)	Improbable (2)
Significance	Medium (30)	Low (14)
Status	Negative	Negative
Reversibility	Medium	High
Irreplaceable loss of resources?	No	No
Can impacts be mitigated?	Enhanced - Yes	Enhanced - Yes
Mitigation Measures		
<ul style="list-style-type: none"> ● Responsible Waste Disposal: Use certified contractors for waste disposal and recycling of materials. ● Site Safety Measures: Implement strict safety protocols to prevent accidents during dismantling. 		

7.2.4 Cumulative Impact

The cumulative socio-economic impacts of the Ghanja Stockpile project primarily encompass how the project interacts with the existing socio-economic fabric of the community and any planned or potential future developments. These impacts extend across employment, local business engagement, and broader community economic health.

- **Employment Dynamics:** The operation of the Ghanja Stockpile will generate new employment opportunities, potentially affecting local labour market dynamics, including wage levels, skill requirements, and employment patterns.
- **Local Economic Development:** Engagement with local businesses for supplies and services is expected to stimulate local economic activities. The project's influence, along with other ongoing or planned developments, necessitates strategic planning to optimally enhance local economic capacities without causing saturation.
- **Community Infrastructure and Services:** The project's demand on local infrastructure—such as roads, utilities, and public services—could be moderate when combined with other local demands.
- **Cultural and Community Identity:** The project may lead to changes in land use and an increase in industrial activities, potentially altering the community's character and impacting long-term community identity and cohesion.

The establishment of the Ghanja Stockpile will have transformative effects on the community and local municipality, resulting in various impacts to different degrees:

- People:
 - Skills development and training opportunities.
 - Employment opportunities.
 - Renewed sense of hope.
 - Improved socio-economic outcomes due to investments in socio-economic and economic development (SED):
 - ◆ Health improvements.
 - ◆ Education enhancements; and
 - ◆ Increased economic participation.
 - Socio-economic cohesion among community beneficiaries; and
 - Increased sense of prestige for the community and town.
- Planet:
 - Increased power supply for the country with reduced environmental damage.
- Profit:

- Increased revenue for the local municipality.
- Increased economic activity in the local community and broader municipality; and
- Investment in socio-economic and commercial infrastructure to stimulate economic growth.

These elements illustrate the intertwined nature of the project’s impacts on the local socio-economic environment, highlighting the need for integrated strategic management to mitigate negative effects while enhancing positive contributions..

Table 12: Cumulative Impact Tables for Ghanja Stockpile

Nature: An increase in employment opportunities, skills development, and business opportunities with the establishment of a stockpile.		
	Overall Impact of the Proposed Project Considered in Isolation	Cumulative Impact of the Project and Other Projects in the Area
Extent	Local (2)	Regional (3)
Duration	Short-term (2)	Short-term (2)
Magnitude	Low (4)	Moderate (6)
Probability	Highly Probable (4)	Probable (3)
Significance	Medium (32)	Medium (33)
Status (positive or negative)	Positive	Positive
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated?	Yes	Yes
Confidence in findings: High.		
Enhancement Measures		
<ul style="list-style-type: none"> ● Local employment policies should be prioritised to maximize the project's opportunities for the community. 		

- Utilisation of local service providers by developers to enhance the cumulative positive impacts on local economic activity and employment.

Nature: Negative impacts and change to the local economy with an in-migration of labourers, businesses, and jobseekers to the area.

	Overall Impact of the Proposed Project Considered in Isolation	Cumulative Impact of the Project and Other Projects in the Area
<i>Extent</i>	Local (2)	Regional (3)
<i>Duration</i>	Short-term (2)	Short-term (2)
<i>Magnitude</i>	Minor (2)	Low (4)
<i>Probability</i>	Very Improbable (1)	Improbable (2)
<i>Significance</i>	Low (7)	Low (18)
<i>Status (positive or negative)</i>	Negative	Negative
<i>Reversibility</i>	Yes	
<i>Irreplaceable loss of resources?</i>	No	
<i>Can impacts be mitigated?</i>	Yes	

Confidence in findings: High.

Mitigation Measures

- Develop a recruitment policy/process (to be implemented by contractors), which will ensure the sourcing of labour locally, where available.
- Work together with government agencies to ensure that service provision is in line with the development needs of the local area.
- Form joint ventures with community organisations, through Trusts, which can provide local communities with benefits, such as employment opportunities and services.
- Develop and implement a recruitment protocol in consultation with the municipality and local community leaders. Ensure that the procedures for applications for employment are clearly communicated.

7.3 Issues Associated with the No-Go Option

The “no-go” alternative is the option of not constructing the Ghanja Stockpile. The implementation of the proposed project is expected to result in a number of positive and negative socio-economic impacts. The majority of negative impacts identified for the project are associated with the construction phase of the project, while the positive impacts are associated with both the construction and operation phases of the project.

Potential negative socio-economic impacts associated with the construction and operation of the project include the following:

- Potential influx of job seekers and an associated change in population and increase in pressure on basic services.
- Potential safety and security impacts.
- Potential impacts on daily living and movement patterns.
- Potential nuisance impacts (noise and dust).
- Potential visual impact and impact on the sense of place.

Potential positive socio-economic impacts associated with the construction and operation of the project include the following:

- Potential direct and indirect employment opportunities.
- Skills development and skills transfer opportunities.
- Potential economic multiplier effect.
- Contribution to local economic development through increased economic activity.
- Community upliftment initiatives as part of corporate social responsibility programmes.

The impacts of pursuing the “no-go” alternative can therefore be summarised as follows:

- The benefits would be that there is no disruption from nuisance impacts (noise and dust during construction), visual impacts and safety and security impacts. The impact is therefore neutral.
- There would also be an opportunity loss in terms of limited job creation, skills development, community upliftment and associated economic business opportunities for the local economy. This impact is considered to be negative; and
- The absence of the project means that potential improvements in infrastructure, which could have broader benefits for the local economy, would not be realised, and therefore result in negative socio-economic impacts.

8 Monitoring and Compliance (EMPr)

8.1 Construction Phase

Table 13: EMPr Direct Employment and Skills Development

OBJECTIVE: Maximise local employment and skills opportunities associated with the construction phase		
Project component/s	Construction of the proposed Ghanja Stockpile and associated infrastructure	
Potential Impact	The opportunities and benefits associated with the creation of local employment and skills development to be maximised.	
Activity/risk/source	Construction procurement practice employed by the Contractor. Developers' investment plan.	
Mitigation Target/Objective	The developer should aim to employ as many low-skilled and semi-skilled workers from the local area as possible. This should also be made a requirement for all contractors.	
Enhancement: Action/Control	Responsibility	Timeframe
The developers be committed to involving and benefiting the communities surrounding the development, contributing to their development and growth.	The Proponent & EPC Contractors	Pre-construction & construction phase
Training and skills development programmes should be offered to employees of the development prior to the commencement of the construction phase.	The Proponent & EPC Contractors	Pre-construction & construction phase
The communities which are most in need of employment on a local level should be considered for employment before outsourcing.	The Proponent & EPC Contractors	Pre-construction & construction phase
Engage proactively with local stakeholders and implement transparent hiring practices to ensure equitable distribution of employment opportunities.	The Proponent & EPC Contractors	Pre-construction & construction phase

Performance Indicator	<p>Employment and business policy document that sets out local employment and targets completed before construction phase commences.</p> <p>Employ as many semi and unskilled labour from the local area or local municipality as possible.</p> <p>Training and skills development programme undertaken prior to the commencement of construction phase.</p>
Monitoring	<p>The developer and EPC contractor must keep a record of local recruitments and information on local labour to be shared with the ECO for reporting purposes.</p>

Table 14: EMPr Economic Multiplier Effects

OBJECTIVE: Maximise local economic multiplier effect during construction phase		
Project component/s	Construction of the proposed Ghanja Stockpile and associated infrastructure	
Potential Impact	Potential local economic benefits	
Activity/risksource	Developer's procurement plan	
Mitigation Target/Objective	Increase the procurement of goods and services especially within the local economy	
Enhancement: Action/Control	Responsibility	Timeframe
Preference is given to suppliers that are local to the operation where the service will be consumed.	The Proponent & EPC Contractors	Pre-construction & construction phase
Establishing liaison and communication structures with the district and local government structures.	The Proponent & EPC Contractors	Pre-construction & construction phase
Liaise with the local governmental structures and municipal authorities in the labour- sending communities to ensure that group development initiatives are integrated into the economic and development plans of those areas.	The Proponent & EPC Contractors	Pre-construction & construction phase
It is recommended that a local procurement policy be adopted by the developer to maximise the benefit to the local economy, where feasible.	The Proponent & EPC Contractors	Pre-construction & construction phase

<p>Create job opportunities, boost local economies by supporting business activities, and contribute to government tax revenues through the development of the Ghanja Stockpile.</p>	<p>The Proponent & EPC Contractors</p>	<p>Pre-construction & construction phase</p>
<p>Prior to the start of the construction contractor procurement, a database of local companies, specifically Historically Disadvantaged (HD) companies, that qualify as potential service providers (e.g., construction companies, catering companies, waste collection companies, security companies, etc) should be identified and informed about the tender process and invited to bid on project-related work, if applicable.</p>	<p>The Proponent & EPC Contractors</p>	<p>Pre-construction & construction phase</p>
<p>Engage with local authorities and business organisations to investigate the feasibility of obtaining construction materials, goods, and products from local suppliers, where possible.</p>	<p>The Proponent & EPC Contractors</p>	<p>Pre-construction & construction phase</p>
<p>Performance Indicator</p>	<p>Local procurement policy is adopted. Local goods and services are purchased from local suppliers where feasible (Local Municipality)</p>	
<p>Monitoring</p>	<p>The developer must monitor indicators listed above to ensure that they have been met for the construction phase.</p>	

Table 15: EMP Safety and Security Impacts

<p>OBJECTIVE: To avoid or reduce the possibility of the increase in crime and safety and security issues during the construction phase</p>	
<p>Project component/s</p>	<p>Construction of the proposed Ghanja Stockpile and associated infrastructure</p>
<p>Potential Impact</p>	<p>Increase in crime due to influx of non-local workforce and job seekers into the area</p>
<p>Activity/risksource</p>	<p>Safety and security risks associated with construction activities</p>
<p>Mitigation Target/Objective</p>	<p>To avoid or minimise the potential impact on local communities and their livelihoods</p>

Enhancement: Action/Control	Responsibility	Timeframe
Access in and out of the construction camp should be strictly controlled by a security company.	The Proponent & EPC Contractor	Construction phase
The appointed EPC contractor must appoint a security company and appropriate security procedures are to be implemented.	The Proponent & EPC Contractor	Construction phase
Improving system monitoring and analysis to improve risk management.	The Proponent & EPC Contractors	Construction phase
Making the surrounding landowners aware of the dangers associated with the influx of workers during the construction period.	The Proponent & EPC Contractors	Construction phase
Identifying abandoned buildings and utilizing them or ensuring they cannot be used for malicious activities.	The Proponent & EPC Contractors	Construction phase
Ensuring that access cannot be gained to surrounding properties.	The Proponent & EPC Contractors	Construction phase
Encourage employees to stop working when a workplace is considered unsafe and/or to prevent unsafe actions.	The Proponent & EPC Contractors	Construction phase
Education, Training and Development Services must be implemented.	The Proponent & EPC Contractors	Construction phase
The contractor must provide adequate firefighting equipment on site and provide firefighting training to selected construction staff.	The Proponent & EPC Contractors	Construction phase
Have clear rules and regulations for access to the proposed site to control loitering.	The Proponent & EPC Contractors	Construction phase
A comprehensive employee induction programme would cover land access protocols, fire management and road safety must be prepared.	The Proponent & EPC Contractors	Construction phase
A Community Liaison Officer should be appointed.	The Proponent & EPC Contractors	Construction phase
A method of communication should be implemented whereby procedures to lodge complaints are set out in order for the local	The Proponent & EPC Contractors	Construction phase

community to express any complaints or grievances with the construction process.		
Performance Indicator	Employee induction programme, covering land access protocols, fire management and road safety. The construction site is appropriately secured with a controlled access system. Security company appointed and security procedures implemented.	
Monitoring	The developer and EPC contractor must monitor the indicators listed above to ensure that they have been met for the construction phase	

Table 16: EMPr Pressure on Economic and Social Infrastructure Impacts from an in Migration of People

OBJECTIVE: Reduce the pressure on economic and social infrastructure and social conflicts from an influx of a non-local workforce and jobseekers during the construction phase		
Project component/s	Construction of the proposed Ghanja Stockpile and associated infrastructure.	
Potential Impact	Increase in traffic disruptions, safety hazards, and impacts on movement patterns of local community as well as impact on private property due to the upgrade of the existing road and heavy vehicle traffic in the local area.	
Activity/risksource	Construction activities affecting daily living and movement patterns.	
Mitigation Target/Objective	To avoid or minimise the potential impact on local communities and their livelihoods.	
Enhancement: Action/control	Responsibility	Timeframe
Where possible, make it a requirement for contractors to implement a 'locals first' policy. Should be advertised for construction employment opportunities, especially for semi and low-skilled job categories (preference to the local Municipality). Enhance employment opportunities for the immediate local area, if this is not possible, then the broader focus areas should be considered for sourcing workers such as the Local Municipality.	The Proponent & EPC Contractors	Pre- construction phase & construction phase
Prior to construction commencing representatives from the local community e.g., ward councillor, surrounding landowners should	The Proponent & EPC Contractors	Construction phase

be informed of details of the construction schedule and exact size of the workforce.			
Recruitment of temporary workers at the gates of the development should not be allowed. A recruitment office located in town with a Community Liaison officer should be established to deal with jobseekers.		The Proponent & EPC Contractors	Construction phase
Have clear rules and regulations for access to the proposed site to control loitering.		The Proponent & EPC Contractors	Construction phase
A Community Liaison Officer should be appointed. A method of communication should be implemented whereby procedures to lodge complaints are set out in order for the local community to express any complaints or grievances with the construction process		The Proponent & EPC Contractors	Pre-construction & construction phase
Performance Indicator	Percentage of the workers employed in construction that come from local communities.		
Monitoring	The developer must keep a record of local recruitments and information on local labour to be shared with the ECO for reporting purposes.		

Table 17: Nuisance Impacts (Noise & Dust)

OBJECTIVE: To avoid or minimise the potential impacts of noise and dust from construction activities during the construction phase		
Project component/s	Construction of the proposed Ghanja Stockpile and associated infrastructure.	
Potential Impact	Heavy vehicles and construction activities can generate noise and dust impacts.	
Activity/risksource	Construction activities	
Mitigation Target/Objective	To avoid and or minimise the potential noise and dust impacts associated with construction activities.	
Enhancement: Action/control	Responsibility	Timeframe

<p>Implement dust suppression measures for heavy vehicles such as wetting the roads on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers.</p>	<p>EPC Contractor</p>	<p>Construction phase</p>
<p>Ensure all vehicles are road worthy, drivers are qualified and are made aware of the potential noise and dust issues.</p>	<p>EPC Contractor</p>	<p>Construction phase</p>
<p>Ensure that drivers adhere to speed limits.</p>	<p>EPC Contractor</p>	<p>Construction phase</p>
<p>A Community Liaison Officer should be appointed. A method of communication should be implemented whereby procedures to lodge complaints are set out in order for the local community to express any complaints or grievances with the construction process.</p>	<p>The Proponent & EPC contractor</p>	<p>Pre-construction & construction phase</p>
<p>Performance Indicator</p>	<p>Dust suppression measures implemented for all heavy vehicles that require such measures during the construction phase.</p> <p>Enforcement of strict speeding limits</p> <p>Road worthy certificates in place for all vehicles</p> <p>Community liaison officer available for community grievances and communication channel</p>	
<p>Monitoring</p>	<p>The EPC contractor must monitor the indicators to ensure that they have been met for the construction phase</p>	

8.2 Operational Phase

Table 18: EMPr Direct Employment and Skills Development During Operation Phase

OBJECTIVE: Maximise local employment and skills opportunities associated with the construction phase		
Project component/s	Operation and maintenance of the proposed Ghanja Stockpile and associated infrastructure.	
Potential Impact	Loss of opportunities to stimulate production and employment of the local economy	
Activity/risksource	Labour practices employed during operations	
Enhancement: Target/Objective	Maximise local community employment benefits in the local economy	
Enhancement: Action/control	Responsibility	Timeframe
Adopt a local employment policy to maximise the opportunities made available to the local labour force. (preference to Local Municipality)	The Proponent & EPC Contractors	Operation phase
The recruitment selection process should seek to promote gender equality and the employment of women wherever possible	The Proponent & EPC Contractors	Operation phase
Establish vocational training programs for the local labour force to promote the development of skills	The Proponent & EPC Contractors	Operation phase
Performance Indicator	Percentage of workers that were employed from local communities (Local Municipality) Number of people attending vocational training throughout the operation phase	
Monitoring	The developer must keep a record of local recruitments and information on local labour to be shared with the ECO for reporting purposes	

OBJECTIVE: Maximise local economic multiplier effect during the operational phase		
Project component/s	Operation and maintenance of the proposed Ghanja Stockpile and associated infrastructure.	
Potential Impact	Loss of opportunities to stimulate production and employment of the local economy	
Activity/risksource	Labour practices employed during operations	
Enhancement: Target/Objective	Maximise local community employment benefits in the local economy	
Enhancement: Action/control	Responsibility	Timeframe
Adopt a local employment policy to maximise the opportunities made available to the local labour force. (preference to Local Municipality)	The Proponent & EPC Contractors	Operation phase
Prior to the start of the construction contractor procurement, a database of local companies, specifically Historically Disadvantaged (HD) companies, that qualify as potential service providers (e.g., construction companies, catering companies, waste collection companies, security companies, etc) should be identified and informed about the tender process and invited to bid on project-related work, if applicable.	The Proponent & EPC Contractors	Operation phase
Engage with local authorities and business organisations to investigate the feasibility of obtaining construction materials, goods, and products from local suppliers, where possible.	The Proponent & EPC Contractors	Operation phase
Performance Indicator	Percentage of workers that were employed from local communities (Local Municipality) Number of people attending vocational training throughout the operation phase	
Monitoring	The developer must keep a record of local recruitments and information on local labour to be shared with the ECO for reporting purposes	

Table 19: EMPr Local Economic Development and Socio-Economic Upliftment During the Operational Phase

OBJECTIVE: Reduce the visual and sense of place impacts associated with the operation phase of the project			
Project component/s	Operation and maintenance of the proposed Ghanja Stockpile and associated infrastructure.		
Potential Impact	Contribution to local economic development and socio-economic upliftment.		
Activity/risksource	Engagement with local businesses and community initiatives.		
Enhancement: Target/Objective	Maximise contributions to local economic development and socio-economic upliftment through sustained employment, support for local businesses, and community initiatives.		
Enhancement: Action/Control		Responsibility	Timeframe
Engage in close collaboration with local authorities to identify and prioritise infrastructure improvements that align with community needs and future growth.		The Proponent	Operation phase
Explore opportunities for public-private partnerships to fund and implement infrastructure projects. This can leverage resources and expertise from both the private and public sectors, ensuring sustainable and well-executed infrastructure improvements.		The Proponent	Operation phase
Performance Indicator	The number of local businesses engaged and contracted, the amount of funding allocated to community initiatives and infrastructure improvements, the number of public-private partnership projects initiated, and the participation rates in workshops and training programs.		
Monitoring	The developer must keep records of all local business engagements, funding allocations, partnership projects, and training programs. Regular reports should be prepared and shared with the ECO and relevant stakeholders.		

9 Environmental Impact Statement

The Ghanja Stockpile project, designed to partially enhance the mining capacity in the Eastern Cape Province, demonstrates a commitment to both economic development and environmental stewardship within the Ingquza Hill Local Municipality and surrounding areas. This project aims to improve the socio-economic conditions of the local community through direct and indirect benefits.

Nationally, South Africa is advancing towards more sustainable and responsible mining practices, seeking to balance economic development with environmental and social impacts. The Ghanja Stockpile project contributes to these objectives by ensuring the efficient management of mining resources while adhering to strict environmental regulations and promoting local socio-economic development.

The Ingquza Hill Local Municipality, characterized by its underutilized economic potential and high unemployment rates, is set to benefit significantly from the project. By creating job opportunities, enhancing local skills through training programs, and initiating community development projects, the Ghanja Stockpile project promises substantial socio-economic upliftment.

Strategic integration with existing infrastructure, such as local roads and utilities, and the careful management of environmental resources ensure the project minimizes its ecological footprint. The project's proximity to local communities necessitates a design that respects the local landscape and cultural context, ensuring minimal disruption while maximizing aesthetic and functional integration.

9.1 Key Findings

- The assessment of the key issues indicated that there are **no fatal flaws**, associated with the Ghanja Stockpile project.
- Positive impacts could be enhanced by implementing appropriate enhancement measures and through careful planning.
- The potential negative social impacts associated with the construction phase are typical of construction related projects and not just focused on the construction of the Stockpile and could be reduced with the implementation of the mitigation measures proposed.
- The project is anticipated to generate employment opportunities, predominantly sourced from the nearby communities. This positive socio-economic impact contributes to local economic stimulation and provides a platform for skills development.
- Careful planning, effective communication, and the implementation of appropriate mitigation measures are key to ensuring the project's positive contribution to the local community and broader region.

9.2 Recommendations

The following recommendations are made based on the SEIA:

- **Employment and Economic Stimulation:** Given the scarcity of job opportunities for the unskilled and semi-skilled in the study area, it is recommended that local labour be utilized to enhance the positive impact of employment creation. This will also mitigate potential negative impacts associated with the inflow of outsiders to the area, increased pressure on infrastructure and services, and safety and security concerns.
- **Local Supplier Inclusion:** Sourcing materials and services from local suppliers can have a dual benefit. It not only boosts the local economy but also reduces the project's carbon footprint due to reduced transportation needs. Given the project's location near Ndindindi, leveraging local businesses can also foster a sense of community ownership and involvement in the project.
- **Infrastructure and Land Use:** The project's location amidst active agricultural lands means that collaboration with local farmers and industries is essential. A plan that minimises disruptions to agricultural activities, especially in the farms listed under the project's purview, should be developed. Additionally, leveraging existing infrastructure, such as roads, can reduce both environmental and social impacts, ensuring that the project integrates seamlessly into the existing landscape.
- **Mitigation of Construction Impacts:** Measures should be put in place to carefully mitigate impacts associated with the construction period, such as dust and noise pollution. This will ensure minimal disruption to the local community and environment.
- **Safety and Security:** Safety and security concerns should be considered during the planning and construction phases of the proposed project. Access control, safety and security measures should be extended to the Ghanja Stockpile project.
- **Community Engagement:** The Ghanja Stockpile project should work through a community liaison officer to ensure that the local community is kept informed about the project and any potential impacts. This will also provide a channel for addressing any concerns or grievances that may arise.

By implementing these recommendations, the Ghanja Stockpile can ensure that it contributes positively to the local community and economy, while minimizing any potential negative impacts.

9.3 Conclusion

The Ghanja Stockpile project represents a import development for the Eastern Cape, particularly within the Ingquza Hill Local Municipality, showcasing a balanced approach to economic development and environmental management. This initiative is positioned to play a crucial role in the socio-economic

advancement of the region by providing substantial employment opportunities, stimulating local economic activity, and enhancing infrastructure development.

As this SEIA has detailed, the project is poised to offer a potential boost to the local economy by creating direct and indirect job opportunities, predominantly sourced from nearby communities. This is particularly vital in an area characterized by high unemployment and economic underdevelopment. The initiative can revitalize the local economy but also aims to instil a sustainable development model that can be replicated in similar contexts across the country.

Furthermore, the project is aligned with national policies that support sustainable mining practices and economic empowerment, ensuring that its implementation partially contributes to broader developmental goals. The strategic location of the project and its integration with local socio-economic structures are designed to optimise both environmental sustainability and economic viability.

However, the realisation of these benefits is contingent upon the project's adherence to rigorous environmental standards and its ability to effectively implement the recommended mitigation measures. Effective stakeholder engagement and transparency in operations are essential to foster community support and ensure the long-term success of the project. This engagement includes addressing any concerns related to environmental impacts, such as noise, dust, and traffic, which are common challenges in construction and mining projects.

Based on the findings of this report, the development of the Ghanja Stockpile project is supported, provided that the recommended mitigation measures are implemented. Effective stakeholder engagement, transparency, and responsiveness to community concerns are crucial to maintaining public trust and acceptance of the project.

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Appendix A: Survey Templates

Appendix B: CVs and Qualification Certificates