

**SCOPING ENVIRONMENTAL IMPACT
ASSESSMENT FOR THE PROPOSED SMALL-
SCALE MINING ACTIVITIES ON MINING
CLAIM (MC) 68193 IN OMAO VILLAGE, OPUWO
DISTRICT, KUNENE REGION, NAMIBIA**

ECC Application Reference No.: **APP-007416**

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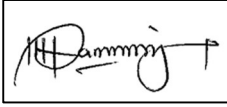
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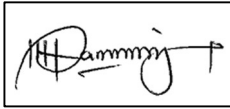
Item	Description
Project Title	Scoping Environmental Impact Assessment for the Proposed Small-Scale Mining Activities on Mining Claim (MC) 68193 in Omao Village, Opuwo District, Kunene Region, Namibia
ECC Application Reference Number	APP-007416
Project Location	Mining Claim (MC) 68193, Omao Village, Opuwo District, Kunene Region, Namibia
Proponent	Tjihoto, Uariongozu Marks
Environmental Assessment Practitioner (EAP)	Simeon Namweya
Competent Authority	Ministry of Environment, Forestry and Tourism (MEFT)
Relevant Ministry	Ministry of Industries, Mines and Energy (MIME)
Report Status	Final Scoping EIA Report
Date	May 2026

EAP Signature and Date



01 June 2026

Proponent Signature and Date

PP. 

01 June 2026

EXECUTIVE SUMMARY

Project Overview

Tjihoto, Uariongozu Marks (hereinafter referred to as “the Proponent”) proposes to undertake small-scale mining activities on Mining Claim (MC) 68193 located in Omao Village, Opuwo District, Kunene Region, Namibia. The Mining Claim is situated within communal land associated with the Okangundumba Conservancy and under the jurisdiction of the Ombombo Traditional Authority.

The proposed mining activities will focus on the extraction of Base and Rare Metals within the approved Mining Claim area. The proposed project is intended to contribute towards mineral resource development, employment creation, and local economic development within the Kunene Region.

Proposed Activities

The proposed activities will include geological investigations, trenching, pitting, drilling, shallow open-pit mining, ore extraction, loading and transportation of mineralised material, temporary stockpiling, waste management, and rehabilitation of disturbed areas where required.

Supporting activities may include the use of access roads, temporary site infrastructure, water supply, fuel storage, and transportation of equipment and materials associated with the mining operations.

Environmental Assessment Process

This Scoping Environmental Impact Assessment (EIA) was conducted in accordance with the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN No. 30 of 2012).

The assessment process included:

- A desktop review of available environmental information;
- Site investigations and observations;
- Identification of potential environmental and socio-economic impacts;
- Consultation with Interested and Affected Parties (I&APs);
- Development of mitigation and management measures.

An Environmental Management Plan (EMP) has been prepared as a separate document to guide environmental management and monitoring throughout the project lifecycle.

Potential Environmental and Socio-Economic Impacts

Potential negative impacts associated with the proposed project may include vegetation disturbance, soil erosion, dust generation, noise impacts, waste generation, impacts on biodiversity, traffic-related impacts, and occupational health and safety risks.

Potential positive impacts may include employment opportunities, local economic development, skills transfer, business opportunities for local communities, and contribution towards Namibia's mining sector and economic growth.

Mitigation measures have been recommended to minimise and manage identified environmental and social impacts.

Public Consultation

Public consultation was undertaken as part of the Environmental Assessment process in accordance with the requirements of the Environmental Management Act and EIA Regulations. Interested and Affected Parties (I&APs), relevant authorities, and local stakeholders were informed about the proposed project and provided with an opportunity to raise comments and concerns regarding the proposed activities.

The issues and concerns raised during the consultation process were considered and incorporated into this report where applicable.

Conclusion

The findings of this Scoping Environmental Impact Assessment indicate that the proposed small-scale mining activities on Mining Claim 68193 may proceed, provided that the recommended mitigation measures and environmental management commitments are effectively implemented.

The Environmental Assessment concludes that the potential impacts associated with the proposed project can be managed to acceptable levels through proper environmental management and monitoring practices.

DISCLAIMER

This Scoping Environmental Impact Assessment Report has been prepared for the purpose of supporting the Environmental Clearance Certificate (ECC) application process for the proposed small-scale mining activities on Mining Claim MC 68193 located in Omao Village, Opuwo District, Kunene Region, Namibia.

The findings, conclusions, and recommendations contained in this report are based on information available at the time of assessment, field observations, stakeholder inputs, and applicable environmental legislation. This report has been prepared specifically for the proposed project and should not be used for purposes other than those for which it was intended.

Environmental conditions and project circumstances may change over time, and additional information obtained during subsequent project phases may require review or amendment of management measures and recommendations.

1 Table of Contents

1	INTRODUCTION	1
1.1	Project Background	1
1.2	Need and Justification for the Project.....	2
1.3	Scope of the Assessment.....	2
1.4	Terms of Reference.....	2
1.5	Objectives of the Study.....	3
1.6	Assessment Methodology.....	3
1.7	Project Location and Land Ownership	3
2	PROJECT DESCRIPTION.....	5
2.1	Project Overview	5
2.2	Project Phases and Activities.....	5
2.2.1	Construction and Site Preparation Phase.....	5
2.3	Operational Phase.....	5
2.3.1	Prospecting and Mining Activities	5
2.3.2	Loading and Transportation	6
2.3.3	Waste Management Activities	6
2.3.4	Decommissioning and Rehabilitation Phase	6
2.3.5	Required Resources.....	7
2.4	Project Cost	7
3	ANALYSIS OF ALTERNATIVES	8
3.1	Alternative Location.....	8
3.2	The “NO PROJECT” Alternative.....	8
3.3	Other Alternatives.....	9
3.4	Alternatives Assessment Outcome	9
4	POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK.....	11
5	DESCRIPTION OF THE AFFECTED ENVIRONMENT.....	13
5.1	Regional Setting	13
5.2	Climate	13

5.3	Topography and Landscape	14
5.4	Geology and Soils.....	16
5.5	Hydrology and Water Resources	18
5.6	Vegetation.....	19
5.7	Fauna	21
5.8	Protected Terrestrial Areas.....	22
5.8.1	Conservancy and Protected Area Context.....	22
5.8.2	Surrounding Land Use	22
5.9	Existing Site Conditions	23
5.10	Socio-Economic Environment.....	23
5.10.1	Regional and Settlement Context.....	23
5.10.2	Livestock Farming and Land Use.....	24
5.10.3	Tourism and Conservancy Activities	24
5.10.4	Mining and Economic Activities	24
6	PUBLIC PARTICIPATION PROCESS	25
6.1	Introduction	25
6.2	Notification of Interested and Affected Parties.....	25
6.2.1	Background Information Document (BID).....	25
6.2.2	Newspaper Advertisements.....	25
6.2.3	Site Notices	26
6.2.4	Stakeholder Consultation	26
6.2.5	Summary of Issues and Concerns Raised	27
7	IMPACT IDENTIFICATION AND ASSESSMENT.....	28
7.1	Introduction	28
7.2	Assessment Methodology.....	28
7.3	Impact Assessment Criteria	28
7.3.1	Extent Rating.....	29
7.3.2	Duration rating	29
7.3.3	Intensity rating	30

7.3.4	Probability rating.....	30
7.4	Significance Determination	31
7.5	Assessment of Potential Impacts	32
7.5.1	Vegetation Disturbance and Habitat Alteration.....	32
7.5.2	Dust Generation	32
7.5.3	Groundwater Contamination.....	33
7.5.4	Heritage Resources.....	34
7.5.5	Soil Disturbance and Erosion.....	34
7.5.6	Faunal Disturbance.....	35
7.5.7	Noise Impacts.....	35
7.5.8	Traffic Impacts	36
7.5.9	Occupational Health and Safety.....	36
7.5.10	Community Disturbance and Land Use Interactions	37
7.6	Positive Impacts.....	37
7.7	Preferred Alternative.....	38
8	RECOMMENDATIONS AND CONCLUSION	39
8.1	Recommendations	39
8.2	Conclusion.....	39
9	REFERENCES	41

LIST OF TABLES

Table 1: Service Alternatives	9
Table 2: Applicable Policy, Legal and Administrative Framework	11
Table 3: International Instruments	12
Table 4: Details of newspaper advertisement for the EIA study	26
Table 5: Summary of Issues and Concerns Raised During Consultation.....	27
Table 6: Impact Assessment Criteria.....	29
Table 7: Extent Rating.....	29

Table 8: Duration Rating.....	30
Table 9: Intensity Rating.....	30
Table 10: Probability Rating	31
Table 11: Significance Determination Scale	31
Table 12: Assessment of Vegetation Disturbance and Habitat Alteration Impacts	32
Table 13: Assessment of Dust Generation Impacts.....	33
Table 14: Assessment of Groundwater Contamination Impacts	33
Table 15: Assessment of Heritage Resource Impacts	34
Table 16: Assessment of Soil Disturbance and Erosion Impacts	34
Table 17: Assessment of Faunal Disturbance Impacts.....	35
Table 18: Assessment of Noise Impacts.....	36
Table 19: Assessment of Traffic Impacts	36
Table 20: Assessment of Occupational Health and Safety Impacts	37

LIST OF FIGURES

Figure 1: Locality Map of Mining Claim (MC) 68193.....	4
Figure 2: Average monthly precipitation for Opuwo, representative of climatic conditions in Omuo Village. (https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,opuwo-na,Namibia).....	14
Figure 3: Topography and landscape map of the project area.	15
Figure 4: General landscape conditions observed during the site assessment.....	15
Figure 5: Geology and dominant soil characteristics associated with the project area.....	17
Figure 6: Lithic Leptosol soil conditions observed within the project area during the site assessment.....	17
Figure 7: Hydrology map illustrating groundwater characteristics associated with the project area....	18
Figure 8: Vegetation map illustrating biome classification and vegetation cover within the project area	20
Figure 9: Colophospermum mopane vegetation and associated natural vegetation observed within the project area during the site assessment.	20
Figure 10: Livestock activities observed within the broader project area during site assessment activities	21
Figure 11: Existing shallow excavations observed within the Mining Claim area during the site assessment.....	23
Figure 12: Public Consultation meetings at Opuwo Rural Constituency, Kunene region.	27

LIST OF APPENDICES

Appendix A – Environmental Management Plan (EMP)

Appendix B – Public Participation Records

Appendix C – Consent Letter from Relevant Authorities

Appendix D – Environmental Assessment Practitioner Information

LIST OF ABBREVIATIONS

Abbreviation	Meaning
BID	Background Information Document
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESA	Environmental Scoping Assessment
GN	Government Notice
I&APs	Interested and Affected Parties
MC	Mining Claim
MEFT	Ministry of Environment, Forestry and Tourism
MIME	Ministry of Industries, Mines and Energy
PPE	Personal Protective Equipment
SP	Significance Points
ToR	Terms of Reference
AMSL	Above Mean Sea Level

DEFINITIONS OF TERMS

Baseline Environment

- Existing environmental and socio-economic conditions within and surrounding the project area prior to commencement of the proposed activities.

Base Metals

- Industrial metals, including copper and associated mineral commodities commonly utilised in manufacturing, infrastructure, and industrial applications.

Environmental Management Plan (EMP)

- As defined in the Environmental Impact Assessment Regulations, a plan that describes how activities that may have significant environmental effects are to be mitigated, controlled, and monitored.

Interested and Affected Parties (I&APs)

- Individuals, groups, communities, organisations, or authorities that may be interested in, affected by, or have jurisdiction over aspects of the proposed project and environmental assessment process.

Mitigation Measures

- Actions implemented to avoid, minimise, reduce, or manage identified environmental and socio-economic impacts.

Mining Claim (MC)

- A mineral licence issued in terms of the Minerals (Prospecting and Mining) Act, 1992 (Act No. 33 of 1992), authorising the holder to undertake approved mining activities within a defined area.

Proponent

- An individual or entity proposing an activity requiring environmental authorisation.

Public Consultation/Involvement

- A process of informing, consulting, and engaging Interested and Affected Parties (I&APs) and relevant stakeholders regarding the proposed project and its potential impacts.

Rare Metals

- Mineral commodities generally occurring in relatively low concentrations and commonly utilised in specialised industrial and technological applications.

Rehabilitation

- Restoration or stabilisation of disturbed areas to environmentally acceptable conditions following operational disturbance.

Scoping

- An initial assessment process undertaken to identify potentially significant environmental and socio-economic impacts associated with a proposed project and determine issues requiring further assessment.

Terms of Reference (ToR)

- Written requirements that guide the Environmental Impact Assessment process, including the scope of work, consultation activities, information to be gathered, and the structure of the assessment report.

1 INTRODUCTION

1.1 Project Background

Tjihoto, Uariongozu Marks (hereinafter referred to as “the Proponent”) proposes to undertake small-scale mining activities for Base and Rare Metals on Mining Claim (MC) 68193 located in Omao Village, Opuwo District, Kunene Region, Namibia.

The proposed project involves exploration and small-scale mining activities associated with the extraction and transportation of Base and Rare Metals within the approved Mining Claim area. The Mining Claim is situated within communal land associated with the Okangundumba Conservancy and falls under the jurisdiction of the Ombombo Traditional Authority.

Mining and extraction-related activities are listed activities under the Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulations (GN No. 30 of 2012) , and therefore require an Environmental Clearance Certificate (ECC) prior to commencement of the proposed activities.

The proposed project triggers the following listed activities under the Environmental Impact Assessment Regulations:

1. *Activity 3.1 – Construction of facilities for activities requiring authorisation under the Minerals (Prospecting and Mining) Act, 1992;*
2. *Activity 3.2 – Other forms of mining or extraction of natural resources; and*
3. *Activity 3.3 – Resource extraction, manipulation, conservation, and related activities.*

This Scoping Environmental Impact Assessment has therefore been undertaken to assess the potential environmental and socio-economic impacts associated with the proposed small-scale mining activities on Mining Claim 68193.

The assessment was conducted in accordance with the applicable environmental legislation, policies, and guidelines governing environmental management and mining activities in Namibia.

1.2 Need and Justification for the Project

The proposed project is intended to contribute towards mineral resource development and socio-economic growth within the Kunene Region and Namibia at large.

The project may contribute towards:

- Employment creation;
- Skills development and knowledge transfer;
- Local business opportunities;
- Economic growth through the mining sector; and
- Revenue generation through mineral resource development.

The proposed activities are also expected to support local economic activities through the procurement of goods and services where possible.

1.3 Scope of the Assessment

The scope of this Scoping Environmental Impact Assessment includes the identification and assessment of potential environmental and socio-economic impacts associated with the proposed small-scale mining activities on Mining Claim 68193.

The assessment further includes:

- Description of the proposed project activities;
- Description of the existing environmental conditions within the project area;
- Public consultation with Interested and Affected Parties (I&APs);
- Identification and assessment of potential impacts; and
- Recommendation of mitigation and management measures.

The assessment was conducted in accordance with the Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulations (GN No. 30 of 2012).

1.4 Terms of Reference

The Environmental Assessment process was conducted in accordance with the requirements of the Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulations (GN No. 30 of 2012).

The Terms of Reference for the assessment included:

- Identification of potential environmental and socio-economic impacts associated with the proposed project;
- Description of the existing environmental conditions within the project area;
- Consultation with Interested and Affected Parties (I&APs) and relevant authorities;
- Assessment of potential impacts associated with the proposed activities;
- Recommendation of mitigation and management measures; and
- Compilation of the Scoping Environmental Impact Assessment Report for submission to the Ministry of Environment, Forestry and Tourism (MEFT).

1.5 Objectives of the Study

The main objective of this study is to identify and assess the potential environmental and socio-economic impacts associated with the proposed small-scale mining activities on Mining Claim 68193.

The specific objectives of the study are to:

- Identify potential environmental and socio-economic impacts associated with the proposed activities;
- Establish baseline environmental conditions within the project area;
- Consult Interested and Affected Parties (I&APs) and relevant stakeholders;
- Recommend mitigation and management measures for identified impacts; and
- Support the Environmental Clearance Certificate application process.

1.6 Assessment Methodology

The assessment methodology included:

- Review of available environmental and legislative information;
- Site investigations and field observations within the project area;
- Consultation with Interested and Affected Parties (I&APs);
- Identification and assessment of potential environmental and socio-economic impacts; and
- Compilation of the Scoping Environmental Impact Assessment Report.

1.7 Project Location and Land Ownership

Mining Claim 68193 is located in Omao Village within the Opuwo District of the Kunene Region, Namibia.

The project area falls within communal land associated with the Okangundumba Conservancy and under the jurisdiction of the Ombombo Traditional Authority. Land use within and surrounding the project area is mainly characterised by communal grazing and rural settlement activities.

Figure 1 below illustrates the locality of Mining Claim 68193 within the Kunene Region.

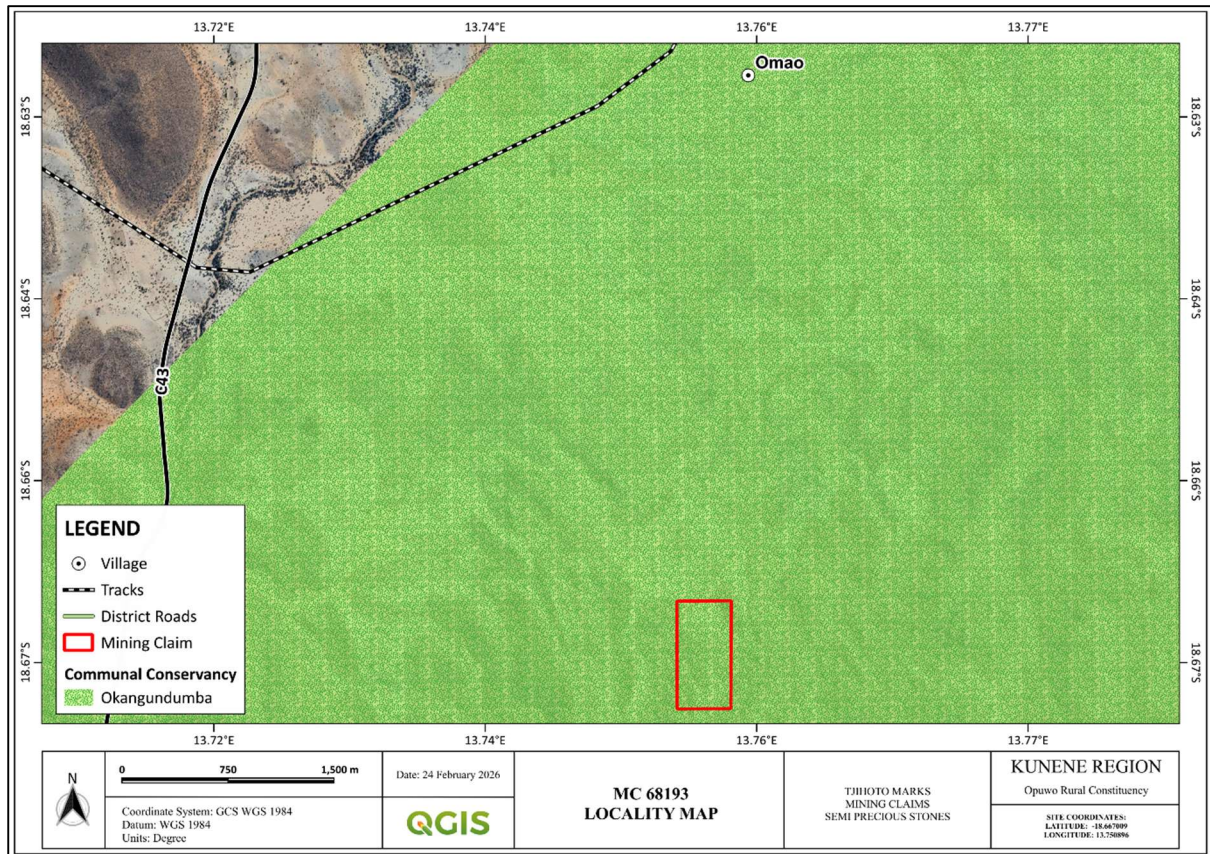


Figure 1: Locality Map of Mining Claim (MC) 68193

2 PROJECT DESCRIPTION

2.1 Project Overview

The proposed project involves small-scale mining activities for Base and Rare Metals on Mining Claim (MC) 68193 located in Omao Village, Opuwo District, Kunene Region, Namibia.

The proposed activities will include prospecting, trenching, pitting, limited excavation, shallow open-pit mining, loading and transportation of mineralised material, temporary stockpiling, and rehabilitation of disturbed areas.

The Environmental Clearance Certificate (ECC) for the proposed activities will be valid for a period of three (3) years, subject to renewal in accordance with applicable environmental legislation.

2.2 Project Phases and Activities

2.2.1 Construction and Site Preparation Phase

Activities during this phase may include:

- Site clearing and preparation;
- Limited vegetation removal where required;
- Topsoil stripping and stockpiling for rehabilitation purposes;
- Upgrading of existing access tracks where necessary;
- Establishment of temporary storage areas;
- Installation of temporary ablution facilities;
- Placement of temporary storage containers;
- Installation of safety signage within the project area; and
- Establishment of temporary operational support infrastructure.

2.3 Operational Phase

2.3.1 Prospecting and Mining Activities

Activities during the operational phase may include:

- Geological mapping;
- Surface and soil sampling;

- Trenching and pitting;
- Limited excavation works;
- Shallow open-pit mining;
- Overburden removal;
- Ore extraction;
- Stockpiling of mineralised material;
- Loading of ore; and
- Transportation of mineralised material.

The extent of mining activities will depend on the occurrence and economic viability of the targeted Base and Rare Metals.

2.3.2 Loading and Transportation

Mineralised material will be transported from the Mining Claim using existing access tracks connecting to the C43 District Road.

Tipper trucks and other suitable transport vehicles may be utilised during transportation activities. Vehicles used for transportation will comply with applicable Namibian road traffic and safety requirements.

2.3.3 Waste Management Activities

Waste generated during operations may include:

- General domestic waste;
- Waste rock;
- Scrap materials;
- Hydrocarbon-related waste; and
- Contaminated materials associated with fuel and oil handling.

Appropriate waste handling and spill prevention measures will be implemented throughout the project lifecycle.

2.3.4 Decommissioning and Rehabilitation Phase

Rehabilitation activities will be undertaken progressively during operations and upon completion of mining activities.

- Rehabilitation activities may include:

- Backfilling of pits and trenches;
- Removal of temporary infrastructure;
- Topsoil replacement;
- Stabilisation of disturbed areas;
- Revegetation where practicable; and
- General site clean-up activities.

2.3.5 Required Resources

Resources required for the proposed activities may include:

- Excavator;
- Front-end loader;
- Tipper truck;
- Four-wheel drive (4x4) vehicles;
- Portable generators;
- Fuel (diesel);
- Hand-held tools and equipment;
- Water storage tanks;
- Temporary storage containers;
- Portable ablution facilities; and
- Estimated water demand: approximately 0.5–1.0 m³/day (500–1,000 litres/day).

2.4 Project Cost

The total estimated cost for the proposed small-scale mining activities has not yet been finalised at the time of this assessment.

3 ANALYSIS OF ALTERNATIVES

The Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulations (GN No. 30 of 2012) require that reasonable project alternatives be considered during the Environmental Assessment process.

Project alternatives refer to different options or approaches that may be considered for the proposed project activities. The alternatives considered for the proposed small-scale mining activities on Mining Claim 68193 include:

- Alternative location;
- The “No Project” alternative; and
- Continuation of the proposed project.

3.1 Alternative Location

The alternative location option implies that the proposed small-scale mining activities would be undertaken at a different location other than Mining Claim 68193.

However, the occurrence of the targeted Base and Rare Metals is site-specific and associated with the geological characteristics of the Mining Claim area (Miller, 2008). The proposed Mining Claim was identified based on the mineral potential of the area and existing geological information.

Relocating the proposed activities to another area may therefore not achieve the intended project objectives. The current Mining Claim area is therefore considered the preferred location for the proposed activities.

3.2 The “NO PROJECT” Alternative

The “No Project” alternative refers to the option where the proposed small-scale mining activities are not undertaken, and the project area remains undisturbed.

Under this option, potential environmental impacts associated with the proposed activities would not occur. However, the “No Project” alternative may also result in the loss of potential socio-economic benefits associated with the project.

Potential benefits that may not be realised include:

- Employment opportunities for local community members;
- Skills transfer and work experience opportunities;

- Local business opportunities;
- Contribution towards mineral resource development; and
- Economic contribution to the mining sector.

Considering the potential socio-economic benefits associated with the proposed project, the “No Project” alternative is not regarded as the preferred option.

3.3 Other Alternatives

Table 1: Service Alternatives

Service	Proposed Option	Alternative Option
Water Supply	Water will be sourced from existing nearby boreholes and transported to site where required. The estimated water demand is approximately 0.5–1.0 m ³ /day (500–1,000 litres/day) for domestic use and limited dust suppression activities.	Water may be sourced from other nearby boreholes subject to agreement with relevant land users and authorities.
Power Supply	Diesel generators will be used during operations.	Solar power may be considered where practical.
Access Roads	Existing access tracks connecting to the C43 District Road will be utilised.	No practical alternative route was identified.
Ablution Facilities	Portable sanitation facilities will be utilised on-site.	Temporary ablution structures may also be considered.
Waste Management	General waste will be collected and disposed of at approved waste disposal sites.	No practical alternative was identified.
Waste Rock Disposal	Waste rock will be placed within designated areas inside the Mining Claim area.	Waste rock may also be utilised during rehabilitation activities where applicable.

3.4 Alternatives Assessment Outcome

Continuation of the proposed project is regarded as the preferred alternative due to the potential socio-economic benefits associated with the proposed small-scale mining activities.

The proposed project may contribute towards employment creation, local business opportunities, skills development, and mineral resource development within the Kunene Region.

The proposed service alternatives, including water supply, waste management, access roads, and power supply, are considered practical and suitable for the scale of the proposed activities.

With the implementation of appropriate environmental management and mitigation measures, the proposed project is considered feasible from both an environmental and socio-economic perspective.

4 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Table 2: Applicable Policy, Legal and Administrative Framework

Legislation / Policy / Guideline	Custodian Authority	Relevance to the Proposed Project
Constitution of the Republic of Namibia (1990, as amended)	Government of Namibia	Environmental protection and sustainable resource management.
Environmental Management Act No. 7 of 2007	MEFT	Environmental assessment and ECC framework.
Environmental Impact Assessment Regulations (GN No. 30 of 2012)	MEFT	Environmental assessment and public participation requirements.
Minerals (Prospecting and Mining) Act No. 33 of 1992	MIME	Mineral rights, land access and environmental obligations. <i>Section 52 – land access agreements</i> <i>Section 91 – rehabilitation considerations</i>
Minerals Policy of Namibia (2003)	MIME	Responsible mineral development.
Nature Conservation Amendment Act No. 3 of 2017	MEFT	Relevant due to communal conservancy and biodiversity considerations.
Traditional Authorities Act No. 25 of 2000	MURD	Communal land governance.
Regional Councils Act No. 22 of 1992	MURD	Regional planning considerations.
Water Resources Management Act No. 11 of 2013	MAFWLR	Groundwater and water protection.
Water Act No. 54 of 1956	MAFWLR	Water pollution prevention.
National Heritage Act No. 27 of 2004	NHC / MEAC	Chance-find and heritage protection.
Communal Land Reform Act No. 5 of 2002	MURD	Communal land use and land access considerations within the project area
Soil Conservation Act No. 76 of 1969	MAFWLR	Soil erosion management.
Public and Environmental Health Act No. 1 of 2015	MHSS	Public health management.
Petroleum Products and Energy Act No. 13 of 1990	MIME	Fuel handling and storage.

Labour Act No. 11 of 2007	MLIREC	Labour and worker welfare.
Road Traffic and Transport Act No. 22 of 1999	MWT	Transport management.
Atmospheric Pollution Prevention Ordinance No. 11 of 1976	MHSS	Dust and air quality.
Hazardous Substances Ordinance No. 14 of 1974	MHSS	Hazardous substances management.

Table 3: International Instruments

Instrument	Relevance
Convention on Biological Diversity (1992)	Biodiversity conservation
UNCCD	Semi-arid land management
CITES	Wildlife and biodiversity considerations

5 DESCRIPTION OF THE AFFECTED ENVIRONMENT

This chapter provides an overview of the existing environmental and socio-economic conditions within and surrounding Mining Claim MC 68193 in Omao Village in the Opuwo District, Kunene Region. The description of the affected environment establishes baseline conditions against which potential environmental and socio-economic impacts associated with the proposed project activities can be identified and assessed.

The chapter considers key environmental characteristics including climate, topography, geology, hydrology, vegetation, fauna, land use, and socio-economic conditions relevant to the project area.

5.1 Regional Setting

Mining Claim MC 68193 is situated in Omao Village within the Opuwo District of the Kunene Region, Namibia. The Mining Claim occurs within communal land associated with the Okangundumba Conservancy and forms part of the broader north-western Namibian landscape.

The surrounding environment is characterised by rural land use activities, open natural landscapes, and communal grazing areas typical of the region. Accessibility to the project area is primarily achieved via the C43 gravel road and existing dirt roads extending from Omao Village towards the Mining Claim area.

5.2 Climate

The project area in Omao Village falls within the semi-arid climatic zone of the Kunene Region and experiences climatic conditions generally characteristic of the broader Opuwo area due to its geographic proximity.

Rainfall within the area is seasonal and predominantly occurs during the summer months, generally between November and April, with peak rainfall typically occurring between January and March. Dry conditions commonly prevail during winter months.

Temperatures are generally warm to hot throughout most of the year, while drought conditions and high evaporation rates remain important environmental characteristics influencing vegetation productivity and water availability.

Average precipitation patterns representative of the broader Opuwo area are presented in **Figure 2** below.

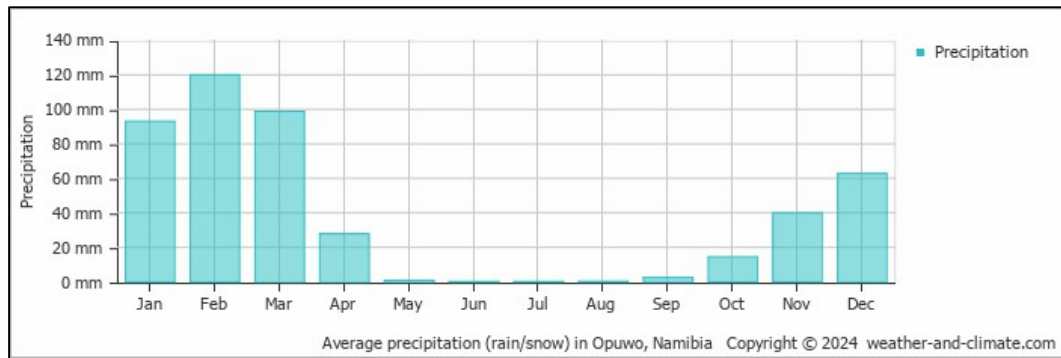


Figure 2: Average monthly precipitation for Opuwo, representative of climatic conditions in Omao Village. (<https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine.opuwo-na,Namibia>)

5.3 Topography and Landscape

The project area is characterised by undulating terrain and landscape features typical of the broader Kunene Region. Elevation across the Mining Claim ranges approximately between 1503 m and 1601 m above sea level, influencing local drainage patterns and erosion susceptibility.

The landscape is classified as Karstveld, generally associated with limestone-dominated geology and limited surface runoff characteristics. Karstveld environments may, under certain geological conditions, support localised subsurface drainage features (Mendelsohn et al., 2002). No significant karst-related features were identified within the Mining Claim area during the site assessment.

The surrounding environment consists predominantly of open natural terrain typical of semi-arid north-western Namibia. Disturbance to exposed soil surfaces may increase susceptibility to erosion if appropriate environmental management measures are not implemented.

Topographic and landscape characteristics associated with the project area are illustrated in **Figure 3** below, while **Figure 4** presents the general topographic landscape observed during the site assessment.

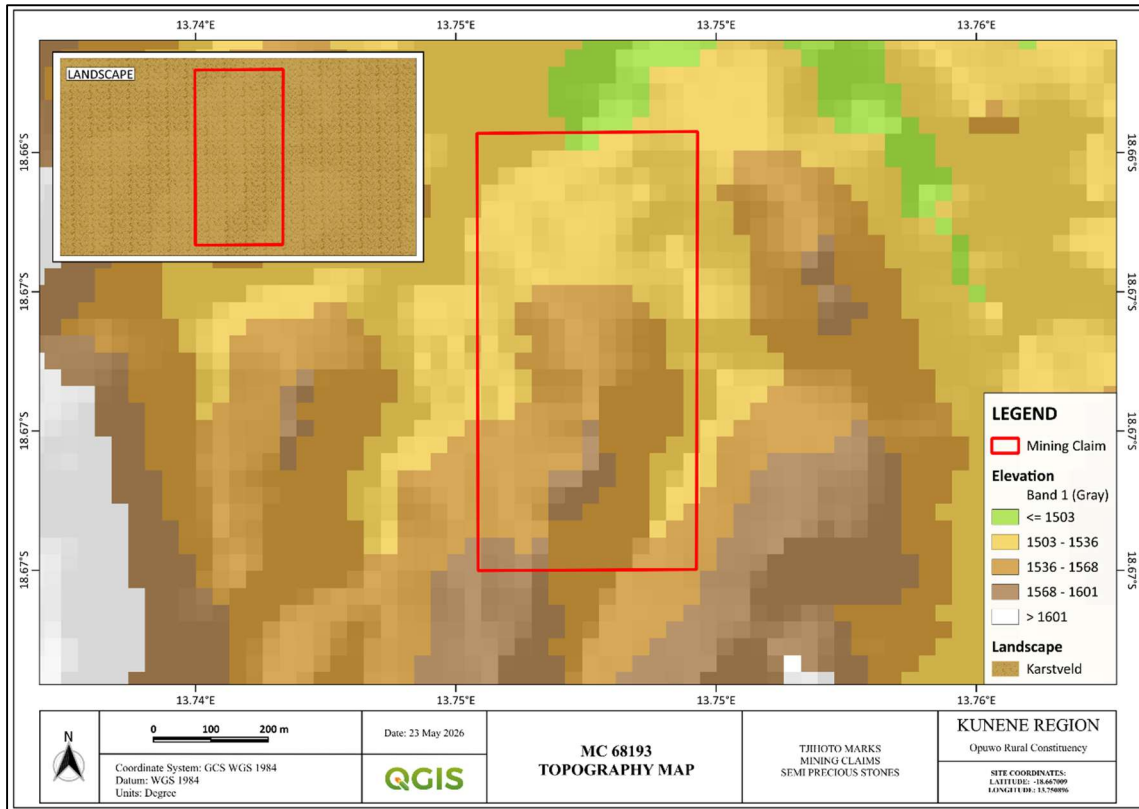


Figure 3: Topography and landscape map of the project area.



Figure 4: General landscape conditions observed during the site assessment

5.4 Geology and Soils

The project area is underlain predominantly by Dolostone lithology, characteristic of portions of the Kunene Region. Dolostone formations commonly influence groundwater movement, drainage behaviour, and landscape development within semi-arid environments. The broader regional geological setting forms part of geological environments associated with the Damara Orogen and related mineral-bearing formations occurring within north-western Namibia (Miller, 2008).

The surrounding landscape is associated with Karstveld environmental characteristics, where geological conditions may contribute to limited surface runoff and localised subsurface water movement (Mendelsohn et al., 2002).

Dominant soil types within the project area comprise Lithic Leptosols, which are generally shallow soils occurring over hard rock formations. These soils may be susceptible to disturbance and erosion where vegetation cover and soil stability are compromised (FAO, 2006).

Appropriate environmental management measures should be implemented to minimise unnecessary soil disturbance and support progressive rehabilitation during project activities.

Geological and soil characteristics associated with the project area are illustrated in **Figure 5** below, while **Figure 6** presents representative soil conditions observed during the site assessment.

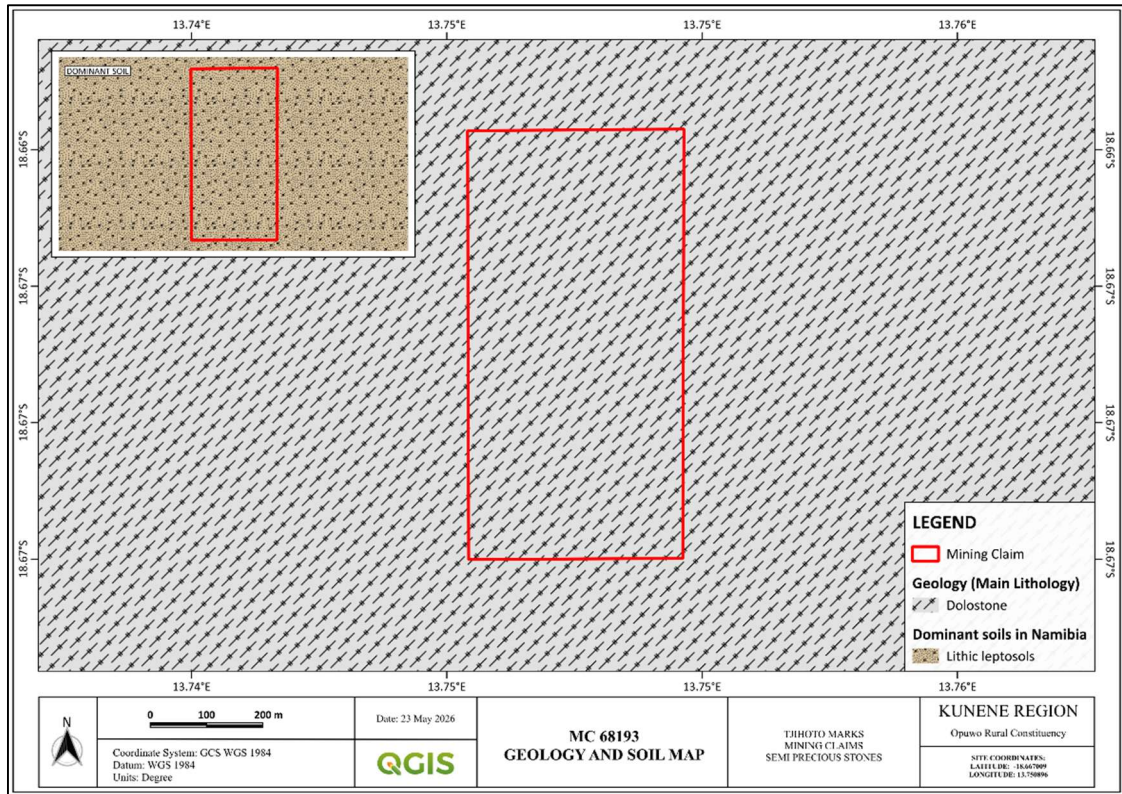


Figure 5: Geology and dominant soil characteristics associated with the project area



Figure 6: Lithic Leptosol soil conditions observed within the project area during the site assessment

5.5 Hydrology and Water Resources

Hydrological characteristics within the project area are influenced by semi-arid climatic conditions and local geological features. Surface water resources are generally limited and largely dependent on seasonal rainfall events.

No major rivers or drainage channels were identified within the Mining Claim area during the site assessment. However, localised seasonal runoff may occur following rainfall events.

Several boreholes utilised for domestic and livestock water supply purposes were observed within the broader surrounding area.

The project area occurs within an area classified as having moderate groundwater vulnerability. Groundwater resources are associated primarily with fractured, fissured, and karstified aquifer systems exhibiting moderate groundwater potential.

Appropriate environmental management measures should be implemented to minimise potential contamination risks associated with groundwater resources during project activities.

Hydrological characteristics associated with the project area are illustrated in **Figure 7** below.

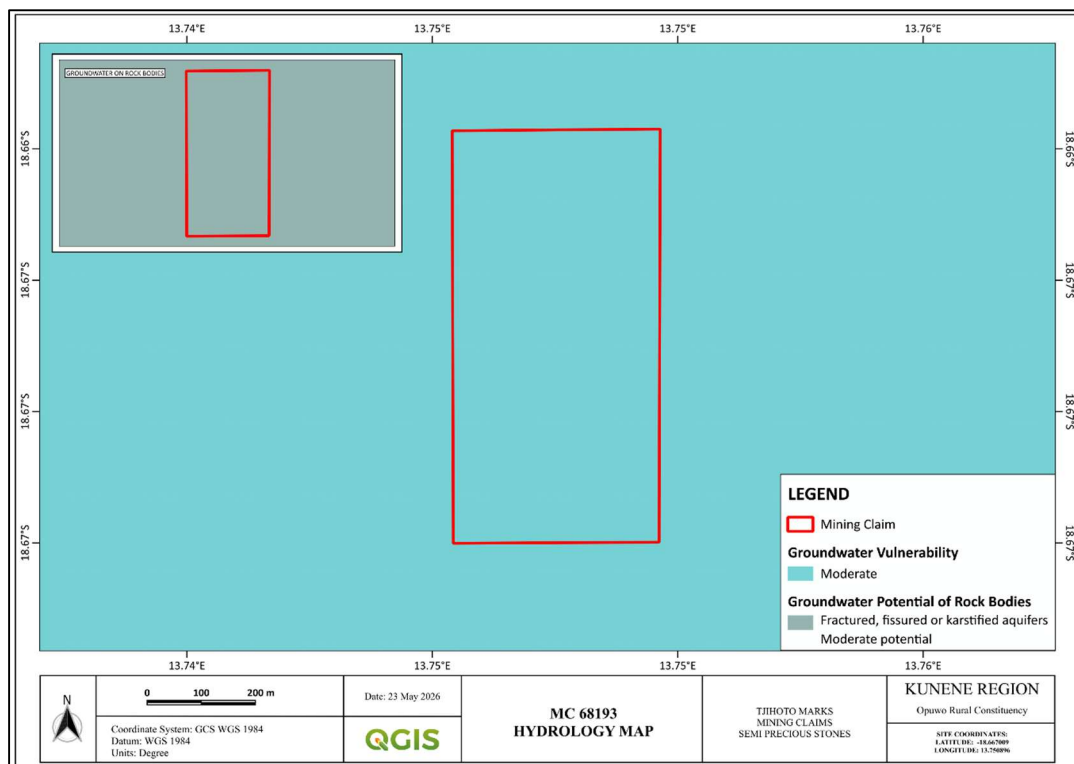


Figure 7: Hydrology map illustrating groundwater characteristics associated with the project area

5.6 Vegetation

The project area occurs within the Savanna biome and is associated with the Western Highlands vegetation cover characteristic of portions of the Kunene Region. Vegetation within the project area contributes towards ecological functioning through soil stabilisation, habitat provision, and erosion reduction.

Field observations undertaken during the site assessment identified vegetation dominated primarily by Mopane (*Colophospermum mopane*) together with associated woody shrub vegetation and natural grass cover occurring across the broader landscape. Vegetation distribution and productivity within the area are influenced by seasonal rainfall patterns, soil conditions, and semi-arid climatic characteristics. These vegetation characteristics are consistent with broader vegetation patterns documented within north-western Namibia (Mendelsohn et al., 2002; Burke & Strohbach, 2000).

Disturbance to vegetation cover may increase susceptibility to soil erosion and habitat disturbance. Vegetation clearing should therefore be minimised during project activities where practical.

Vegetation characteristics associated with the project area are illustrated in **Figure 8** below, while **Figure 9** presents representative vegetation observed during the site assessment.

The proposed project is not anticipated to result in substantial vegetation disturbance beyond the approved Mining Claim area. Where vegetation clearing becomes necessary, disturbance should be minimised and applicable environmental requirements should be complied with, particularly where ecologically important species occur within the project area.



Figure 8: Vegetation map illustrating biome classification and vegetation cover within the project area



Figure 9: *Colophospermum mopane* vegetation and associated natural vegetation observed within the project area during the site assessment.

5.7 Fauna

The project area occurs within a conservancy landscape and supports fauna species associated with semi-arid savanna ecosystems characteristic of the Kunene Region. Wildlife observations undertaken during the site assessment recorded Springbok (*Antidorcas marsupialis*), while livestock activities associated with communal land use were also evident within the surrounding area. Goats (*Capra aegagrus hircus*) and sheep (*Ovis aries*) observed during the site assessment are presented in **Figure 10** below.

Additional fauna potentially associated with the broader environment may include Hartmann's Mountain Zebra (*Equus zebra hartmannae*), smaller mammals, reptiles, and bird species commonly associated with north-western Namibian savanna ecosystems (Mendelsohn et al., 2002).

The relevant conservancy management structures were consulted, and consent relating to land access and proposed project activities was obtained.

Faunal disturbance associated with the proposed project is expected to remain localised and limited to operational areas. Unnecessary disturbance to wildlife should be minimised during project activities.



Figure 10: Livestock activities observed within the broader project area during site assessment activities

5.8 Protected Terrestrial Areas

5.8.1 Conservancy and Protected Area Context

The Mining Claim area occurs within the Okangundumba Conservancy, which forms part of communal conservancy land management systems established to support biodiversity conservation and sustainable natural resource management (MEFT, 2013; NACSO, 2022). The conservancy supports ecological resources and wildlife associated with semi-arid savanna ecosystems characteristic of the Kunene Region.

The conservancy management structures are aware of the proposed project activities, and consent relating to land access and project activities has been obtained.

Fauna observed during the site assessment, including Springbok (*Antidorcas marsupialis*), reflects the ecological value associated with the surrounding conservancy landscape.

The proposed project activities are expected to remain localised within the Mining Claim area. Appropriate environmental management measures should therefore be implemented to minimise unnecessary disturbance to surrounding ecological resources and wildlife habitats.

5.8.2 Surrounding Land Use

Land use activities surrounding the Mining Claim are predominantly characterised by communal livestock farming practices, including cattle, goats, and sheep grazing activities, which remain important livelihood activities within surrounding communities.

Field observations undertaken during the site assessment confirmed livestock activities within the broader project area, with goats and sheep illustrated in **Figure 10**.

Existing land disturbance associated with small-scale mining-related activities, including excavation areas and stockpiles where present, reflects ongoing land utilisation within portions of the surrounding environment.

The proposed project is not anticipated to substantially alter the existing surrounding land use characteristics within the broader project area.

5.9 Existing Site Conditions

The Mining Claim area is characterised by existing shallow excavations observed during the site assessment, indicating previous small-scale excavation activities within portions of the claim area.

Site observations identified mineral-bearing material associated with Base Metal mineralisation occurring within portions of the Mining Claim area, including copper-bearing material observed within exposed excavation areas.

Existing disturbances within the project area are relatively localised and mainly associated with previous excavation and sampling activities undertaken within the Mining Claim boundary.

Existing excavated areas observed during the site assessment are illustrated in **Figure 11** below.



Figure 11: Existing shallow excavations observed within the Mining Claim area during the site assessment.

5.10 Socio-Economic Environment

5.10.1 Regional and Settlement Context

The project area is located within the Opuwo District of the Kunene Region, a predominantly rural region characterised by communal land management systems and dispersed settlement patterns. Omao Village and surrounding settlements mainly depend on livestock farming, subsistence activities, and small-scale business activities for livelihoods (Kunene Regional Council, 2015).

Population distribution within the region is predominantly rural, with settlements generally occurring in low-density patterns associated with communal land use practices (Namibia Statistics Agency, 2017).

5.10.2 Livestock Farming and Land Use

Livestock farming remains one of the primary livelihood activities within the surrounding communities. Cattle, goats, and sheep farming contribute significantly towards household income, food security, and local economic activities.

Field observations undertaken during the site assessment confirmed active livestock grazing activities within the broader project area.

5.10.3 Tourism and Conservancy Activities

The Kunene Region is recognised for tourism and conservation activities associated with communal conservancies, natural landscapes, and wildlife resources (MEFT, 2013; MEFT & NACSO, 2020).

The Okangundumba Conservancy contributes towards biodiversity conservation and supports local livelihood opportunities associated with natural resource management and tourism-related activities within the broader region (MEFT, 2013; MEFT & NACSO, 2022).

5.10.4 Mining and Economic Activities

Mining and mineral exploration activities contribute towards economic development within portions of the Kunene Region (Chamber of Mines of Namibia, 2023; Namibia Statistics Agency, 2023). The proposed project may contribute towards local economic activities through employment opportunities, procurement of goods and services, and mineral resource development.

The proposed small-scale mining activities may further support skills transfer and local business opportunities within surrounding communities.

6 PUBLIC PARTICIPATION PROCESS

6.1 Introduction

Public participation formed an important component of the Environmental Assessment process and was undertaken in accordance with the Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulations (GN No. 30 of 2012).

The purpose of the public participation process was to inform Interested and Affected Parties (I&APs) about the proposed project and provide stakeholders with an opportunity to raise comments, concerns, and recommendations regarding the proposed small-scale mining activities on Mining Claim 68193.

6.2 Notification of Interested and Affected Parties

Consultation with Interested and Affected Parties (I&APs) was facilitated through the following methods:

- Newspaper advertisements;
- Distribution of Background Information Documents (BIDs);
- Site notices;
- Stakeholder consultation; and
- Opportunities for submission of comments and concerns.

6.2.1 Background Information Document (BID)

A Background Information Document (BID) was prepared and distributed to Interested and Affected Parties during the consultation process.

The BID provided a brief overview of the proposed project, project location, anticipated activities, and the Environmental Assessment process. The purpose of the BID was to provide stakeholders with relevant project information and an opportunity to participate in the Environmental Assessment process.

6.2.2 Newspaper Advertisements

Public notices regarding the proposed project were published in local newspapers to notify Interested and Affected Parties and provide an opportunity for stakeholder participation.

Details of the newspaper advertisements are presented in **Table 4** below.

Table 4: Details of newspaper advertisement for the EIA study

Newspaper	Distribution	Language	Dates
The Namibian	Country Wide	English	21 April 2026
The Namibian	Country Wide	English	28 April 2026
New Era	Country Wide	English	21 April 2026
New Era	Country Wide	English	27 April 2026

6.2.3 Site Notices

Site notices containing project information were placed at strategic locations within the project area and surrounding communities to inform Interested and Affected Parties about the proposed project and Environmental Assessment process.

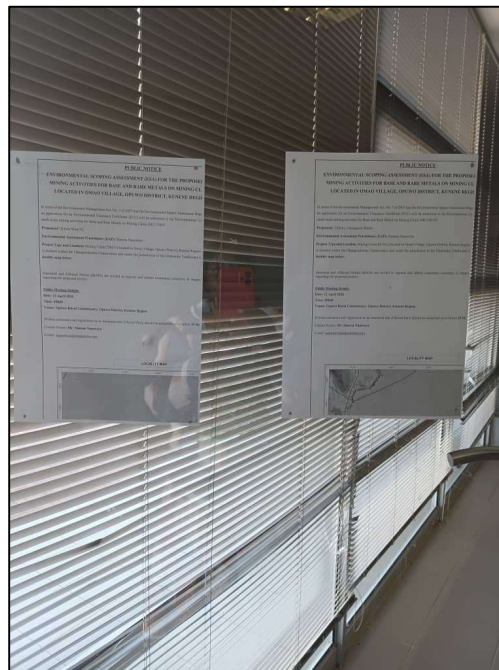


Figure 12: Site Notice placed at Opuwo Rural Constituency Office, Kunene Region

6.2.4 Stakeholder Consultation

Consultation was undertaken with relevant stakeholders, surrounding community members, and conservancy representatives regarding the proposed project activities.

The consultation process provided stakeholders with an opportunity to raise comments, concerns, and recommendations relating to the proposed project activities.



Figure 13: Public Consultation meetings at Opuwo Rural Constituency, Kunene region.

6.2.5 Summary of Issues and Concerns Raised

Issues and concerns raised during the consultation process mainly related to employment opportunities, environmental management, grazing activities, dust and noise impacts, water resource protection, and land use considerations within the conservancy area.

Table 5 below provides a summary of the issues and concerns raised during stakeholder consultation and corresponding responses considered during the Environmental Assessment process.

Table 5: Summary of Issues and Concerns Raised During Consultation

Issue / Concern Raised	Response / Consideration
Potential employment opportunities	The proposed project may create temporary employment opportunities for local community members where possible.
Environmental management and rehabilitation	Rehabilitation measures and environmental management commitments will be implemented throughout the project lifecycle.
Protection of grazing areas	Project activities will remain within the Mining Claim area and unnecessary disturbance to grazing areas will be minimised where practical.
Dust and noise impacts	Appropriate mitigation measures, including dust suppression and controlled operational activities, will be implemented where necessary.
Water resource protection	Measures will be implemented to minimise potential contamination of groundwater and surrounding water resources.
Land use considerations within the conservancy area	The proposed activities were discussed with relevant conservancy representatives and land access consent was obtained.

7 IMPACT IDENTIFICATION AND ASSESSMENT

7.1 Introduction

This chapter identifies and assesses potential environmental and socio-economic impacts associated with the proposed small-scale mining activities on Mining Claim 68193.

Potential impacts associated with project activities were assessed considering existing environmental conditions, project characteristics, and proposed environmental management measures. Both positive and negative impacts associated with the proposed project were considered to support informed decision-making and responsible environmental management.

The assessment considered impacts associated with site preparation, operational activities, supporting infrastructure, and rehabilitation activities.

7.2 Assessment Methodology

Potential impacts were identified through:

- Site observations;
- Baseline environmental assessment;
- Stakeholder consultation; and
- Professional judgement.

Impacts were assessed before mitigation (inherent impacts) and after mitigation (residual impacts).

7.3 Impact Assessment Criteria

Potential environmental and socio-economic impacts associated with the proposed project were assessed using a structured impact assessment approach. The assessment considered:

- Nature of the impact;
- Extent;
- Duration;
- Intensity;
- Probability of occurrence; and

- Sensitivity of the receiving environment.

The impact assessment criteria applied during the assessment are presented in **Table 6** below.

Table 6: Impact Assessment Criteria

Criterion	Definition	Categories
Nature	Type of impact	Positive / Neutral / Negative
Extent	Spatial Influence	Site / Local / Regional / National
Duration	Time period	Immediate / Short / Medium / Long / Permanent
Intensity	Magnitude of change	Low / Medium / High
Probability	Likelihood	Improbable / Possible / Probable / Definite
Sensitivity	Environmental vulnerability	Low / Moderate / High

7.3.1 Extent Rating

The extent rating describes the spatial scale over which an identified impact may occur. This criterion considers whether impacts remain confined to the project footprint or extend beyond the Mining Claim area into the surrounding environment. The extent rating applied in the assessment is presented in **Table 7** below.

Table 7: Extent Rating

Rating	Description
1	Site-specific
2	Adjacent/local
3	Regional
4	Regional beyond site
5	National/ International

7.3.2 Duration rating

The duration criterion assesses the period over which an identified environmental or socio-economic impact is expected to persist. Impact duration may range from immediate or short-term effects associated with operational activities to long-term or permanent changes depending on the nature of the activity and receiving environment. The duration rating applied in the assessment is presented in **Table 8** below.

Table 8: Duration Rating

Rating	Description
1	Immediate
2	Short-term (0-5 years)
3	Medium-term (5-15 years)
4	Long term
5	Permanent

7.3.3 Intensity rating

The intensity criterion assesses the degree of environmental or socio-economic change resulting from an identified impact. Intensity considers the severity of the impact on the receiving environment and whether the effect results in minor, moderate or more substantial alteration to existing conditions. The intensity rating applied in the assessment is presented in **Table 9** below.

Table 9: Intensity Rating

Rating	Description
1	Minor deterioration or alteration
2	Low alteration
3	Moderate alteration
4	Substantial alteration
5	Very high alteration

7.3.4 Probability rating

The probability criterion assesses the likelihood of an identified impact occurring as a result of the proposed activities. This criterion considers the chance that an impact may occur during the project lifecycle and assists in determining the overall significance of potential environmental and socio-economic impacts. The probability rating applied in the assessment is presented in **Table 10** below.

Table 10: Probability Rating

Rating	Description
1	Improbable
2	Possible
3	Frequent
4	Probable
5	Definite

7.4 Significance Determination

The overall significance of identified impacts is determined by integrating the assessment criteria discussed in the preceding sections, namely extent, duration, intensity, and probability of occurrence.

Following assignment of ratings to each assessment criterion, the significance of impacts is calculated using the formula below:

$$\text{SIGNIFICANCE POINTS (SP)} = (\text{MAGNITUDE} + \text{DURATION} + \text{SCALE}) \times \text{PROBABILITY}$$

The highest possible score for an identified impact is 100 significance points (SP). Based on the calculated score, impacts are classified according to significance categories ranging from low to high significance.

The significance rating scale adopted for this assessment is presented in **Table 11** below.

Table 11: Significance Determination Scale

Score	Significance	Code
>60	High	H
30-60	Medium	M
1-30	Low	L
0	Neutral	N
-1 to -30	Low Negative	L
-30 to -60	Medium Negative	M
<-60	High Negative	H

7.5 Assessment of Potential Impacts

Potential environmental and socio-economic impacts associated with the proposed project were identified and assessed considering the nature of the proposed activities, existing environmental conditions, and characteristics of the receiving environment.

The assessment further considers mitigation measures aimed at avoiding, minimising, or managing identified impacts associated with the proposed project activities.

Potential impacts assessed in this chapter are outlined in **Table 12, Table 13, Table 14, Table 15, Table 16, Table 17, Table 18, Table 19, and Table 20** below.

7.5.1 Vegetation Disturbance and Habitat Alteration

Limited vegetation disturbance may occur within portions of the Mining Claim area where excavation activities and movement of equipment take place. Potential impacts include localised removal of vegetation cover and temporary alteration of habitat conditions. Given the existing disturbance already observed within sections of the Mining Claim area, impacts are expected to remain localised.

Impact: Localised vegetation disturbance and temporary habitat alteration.

Mitigation Measures:

- Restrict disturbance footprint.
- Use existing disturbed areas and tracks where practical.
- Implement progressive rehabilitation.
- Minimise unnecessary vegetation clearing.

Table 12: Assessment of Vegetation Disturbance and Habitat Alteration Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -3	M -3	M -4	M/H -4	M -40
Post-Mitigation	L/M -2	L/M -2	L -2	L/M -2	L -16

7.5.2 Dust Generation

Excavation activities and vehicle movement may result in temporary dust generation within portions of the Mining Claim area. Dust impacts are expected to remain site-specific to localised and largely dependent on weather conditions and operational intensity.

Impact: Temporary deterioration of local air quality.

Mitigation Measures:

- Apply water suppression where necessary.
- Maintain speed restrictions.
- Minimise unnecessary vehicle movement.
- Suspend dust-intensive activities during strong wind conditions.

Table 13: Assessment of Dust Generation Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -3	M -3	L/M -3	M/H -4	M -36
Post-Mitigation	L -1	L/M -2	L -2	L -2	L -10

7.5.3 Groundwater Contamination

Potential contamination risks may arise from accidental fuel or hydrocarbon spills associated with equipment and operational activities. The likelihood remains relatively low provided fuel handling and storage controls are implemented.

Impact: Soil and groundwater contamination.

- Mitigation Measures:
- Bunded fuel storage.
- Spill kits.
- Routine inspections.
- Immediate spill response.

Table 14: Assessment of Groundwater Contamination Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -4	M -3	M -5	M/H -4	M -48
Post-Mitigation	L/M -2	L/M -2	L/M -3	L/M -2	L -18

7.5.4 Heritage Resources

Previously unidentified heritage resources may occur within the broader project area. Disturbance may occur if such resources are encountered during excavation activities.

Impact: Disturbance to heritage or archaeological resources.

Mitigation Measures:

- Implement Chance Find Procedure.
- Stop work where heritage material is identified.
- Notify relevant authorities.
- Establish exclusion areas where required.

Table 15: Assessment of Heritage Resource Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	L/M -2	M -3	L/M -3	M -3	L -24
Post-Mitigation	L -1	L -1	L -2	L -2	L -8

7.5.5 Soil Disturbance and Erosion

Excavation activities associated with the proposed amendment may result in localised soil disturbance and increased susceptibility to erosion where exposed soil surfaces are not effectively managed. Potential impacts are expected to remain localised given the limited operational footprint and implementation of environmental management measures.

Impact: Localised soil disturbance and erosion susceptibility.

Mitigation Measures:

- Minimise unnecessary disturbance.
- Progressive rehabilitation.
- Restrict activities to designated operational areas.
- Implement erosion control measures.

Table 16: Assessment of Soil Disturbance and Erosion Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -3	M -3	M -4	M/H -4	M -42

Post-Mitigation	L/M -2	L/M -2	L -2	L/M -2	L -12
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7.5.6 Faunal Disturbance

Operational activities may temporarily disturb wildlife and livestock movement patterns through noise, equipment operation and human presence. Impacts are anticipated to remain localised and temporary.

Impact: Temporary disturbance to wildlife and livestock.

Mitigation Measures:

- Restrict unnecessary movement.
- Minimise disturbance footprint.
- Avoid unnecessary wildlife interactions.
- Rehabilitate disturbed areas.

Table 17: Assessment of Faunal Disturbance Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -3	M -3	L/M -4	M -4	M -36
Post-Mitigation	L -1	L/M -2	L -2	L -2	L -10

7.5.7 Noise Impacts

Equipment operation and vehicle movement may contribute to temporary increases in noise levels within portions of the Mining Claim area. Impacts are expected to remain localised and operational in nature.

Impact: Temporary operational noise impacts.

Mitigation Measures:

- Restrict activities to daytime.
- Maintain equipment.
- Minimise unnecessary idling.
- Implement operational controls.

Table 18: Assessment of Noise Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	L/M -2	M -3	M -4	M -4	M -32
Post-Mitigation	L -1	L/M -2	L -2	L -2	L -8

7.5.8 Traffic Impacts

Increased operational vehicle movement may contribute to temporary traffic-related impacts and road use pressure. Existing access roads will be utilised where practical.

Impact: Increased operational traffic movement.

Mitigation Measures:

- Maintain speed limits.
- Use existing roads.
- Routine vehicle maintenance.
- Implement traffic awareness measures.

Table 19: Assessment of Traffic Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	L/M -2	M -3	L/M -3	M -4	L/M -28
Post-Mitigation	L -1	L -1	L -2	L -2	L -8

7.5.9 Occupational Health and Safety

Operational activities may expose personnel to occupational risks associated with equipment operation, excavation activities and movement within operational areas.

Impact: Occupational injury and safety risks.

Mitigation Measures:

- Use PPE.
- Health and safety induction.
- Maintain first aid availability.
- Routine safety inspections.

Table 20: Assessment of Occupational Health and Safety Impacts

Mitigation Status	Extent	Duration	Intensity	Probability	Significance
Pre-Mitigation	M -3	M/L -2	M -5	M/H -4	M -40
Post-Mitigation	L/M -2	L/M -2	L -2	L/M -2	L -12

7.5.10 Community Disturbance and Land Use Interactions

Operational activities associated with the proposed project may result in temporary disturbance to surrounding land users through vehicle movement, operational noise, and temporary access restrictions within portions of the Mining Claim area. Interaction between operational activities and existing land uses may contribute to localised nuisance impacts if not properly managed.

The significance of the impact is expected to remain medium prior to mitigation and reduce to low significance following implementation of mitigation measures.

Impact: Temporary nuisance impacts and disturbance to surrounding land users.

Mitigation Measures:

- Maintain communication with surrounding land users;
- Restrict activities to approved operational areas;
- Utilise existing access routes;
- Minimise unnecessary disturbance to grazing activities; and
- Implement a grievance mechanism for complaints and concerns.

7.6 Positive Impacts

Positive impacts associated with the proposed project are expected to include contribution towards mineral development activities and support to local economic participation.

Potential positive outcomes associated with the proposed project include:

- Employment opportunities;
- Contribution towards local economic activities;
- Mineral resource development opportunities; and
- Formalisation of mining activities through the applicable regulatory framework.

7.7 Preferred Alternative

The preferred alternative is continuation of the proposed small-scale mining activities for Base and Rare Metals on Mining Claim MC 68193, subject to implementation of applicable environmental management measures.

The preferred alternative recognises the mineral-bearing potential identified within the Mining Claim area and supports continuation of mining activities through the appropriate environmental and regulatory framework while maintaining environmental management commitments.

Potential environmental impacts associated with the proposed project are expected to remain localised and manageable through implementation of mitigation and rehabilitation measures identified during the Environmental Assessment process.

Where heritage resources, archaeological material, or cultural features are identified during project activities, work within affected areas will cease and relevant authorities will be notified to allow appropriate assessment and management prior to continuation of activities.

8 RECOMMENDATIONS AND CONCLUSION

8.1 Recommendations

Potential environmental and socio-economic impacts associated with the proposed project were identified and assessed, and mitigation measures have been incorporated to minimise potential adverse impacts. Most identified impacts were assessed as medium significance prior to mitigation and are expected to reduce to low significance following implementation of environmental management measures.

To maintain acceptable environmental performance, mitigation measures contained within the Environmental Management Plan (EMP) should be implemented and monitored throughout the project lifecycle. Monitoring should support early identification and management of environmental risks that may arise during operations.

Based on the findings of this assessment, the following recommendations are proposed:

- Implementation of the Environmental Management Plan (EMP) as an operational environmental management tool;
- Continued implementation of environmental monitoring measures;
- Progressive rehabilitation of disturbed areas;
- Maintenance of stakeholder communication and engagement;
- Implementation of occupational health and safety measures;
- Implementation of heritage chance-find procedures where heritage resources are encountered; and
- Compliance with Environmental Clearance Certificate conditions and applicable legal requirements.

8.2 Conclusion

The assessment considered potential environmental and socio-economic impacts associated with the proposed small-scale mining activities for Base and Rare Metals on Mining Claim MC 68193.

Potential impacts associated with the proposed project are expected to remain localised and manageable through implementation of mitigation measures and environmental management

commitments contained within the Environmental Management Plan (EMP). Residual impacts are generally anticipated to remain low following mitigation.

Based on the findings of this Environmental Assessment, the proposed project is considered environmentally acceptable, provided that recommended mitigation measures, monitoring commitments, rehabilitation measures, and applicable environmental management requirements are effectively implemented throughout the project lifecycle.

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