ENVIRONMENTAL ASSESSMENT REPORT

Environmental Scoping Report for the Proposed Exploration and Mining Activities

at

Romeo Nel Farming

Prepared by:

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DOCUMENT DESCRIPTION

PROJECT PROPONENT: **Romeo Nel Farming**

PROJECT LOCATION: **Farm Romeo Nel**

TITILE OF DOCUMENT: **ENVIRONMENTAL SCOPING REPORT**

TYPE OF REPORT: **FINAL SCOPING REPORT**

PREPARED BY: **ENVIROSOLUTION, SWAKOPMUND**

Contents

LIST OF ACRONYMS

NDP: National Development Plan

EIA: Environmental Impact Assessment

EMP: Environmental Management Plan

EMA: Environmental Management Act

1. INTRODUCTION AND BACKGROUND

1.1 Background

EnviroSolutions has been appointed by The Proponent, Mr. Romeo Nel, to undertake an Environmental Impact Assessment and complete an Environmental Management Plan for the exploration and mining project located in the Proponent's Farm, located near Schlip in the Hardap Region.

This is in line with the requirements of the Environmental Management Act (EMA, 2007) and the Environmental Assessment Guidelines as per Government Gazette, 06 February 2012. The Proponent intends to mine natural occurring stones and cut the stones to be used as building material or floor tiles. The proposed stone processing activity will provide raw material for building and activities in the area of Schlip.

1.2 Purpose of the Scoping report

The scoping report provides all the relevant information that is necessary for a proper understanding of the nature of issues identified during the scoping process including;

- Detailed description of the project and reasonable alternatives identified
- Description of the area/property on which the project is to be undertaken
- Description of the environment that will be affected by the project activities
- The manner in which physical, biological, social, economic and cultural aspects will be affected by the project
- Description of proposed mitigation measures for the identified potential impacts

1.3 Scope of The study

An environment baseline assessment was conducted in the project area. From the baseline assessment and consultation with neighboring farm owners, there were no critical issues identified to require specialist studies. The only detailed study was a vegetation mapping to identify the abundance of protected species. This was done as a joint assessment between the consultants and in consultation with the Ministry of Agriculture.

Neighboring farm owners were informed of the intended development by means notices that were placed on farm gates. An Environmental Management Plan with mitigatory measures to minimize the impact on the environment has also been completed as part of the application for an Environmental Clearance Certificate.

1.4 The Project Site

The project area is located South of Rehoboth near south of Schlip and is best appreciated in the figures below:

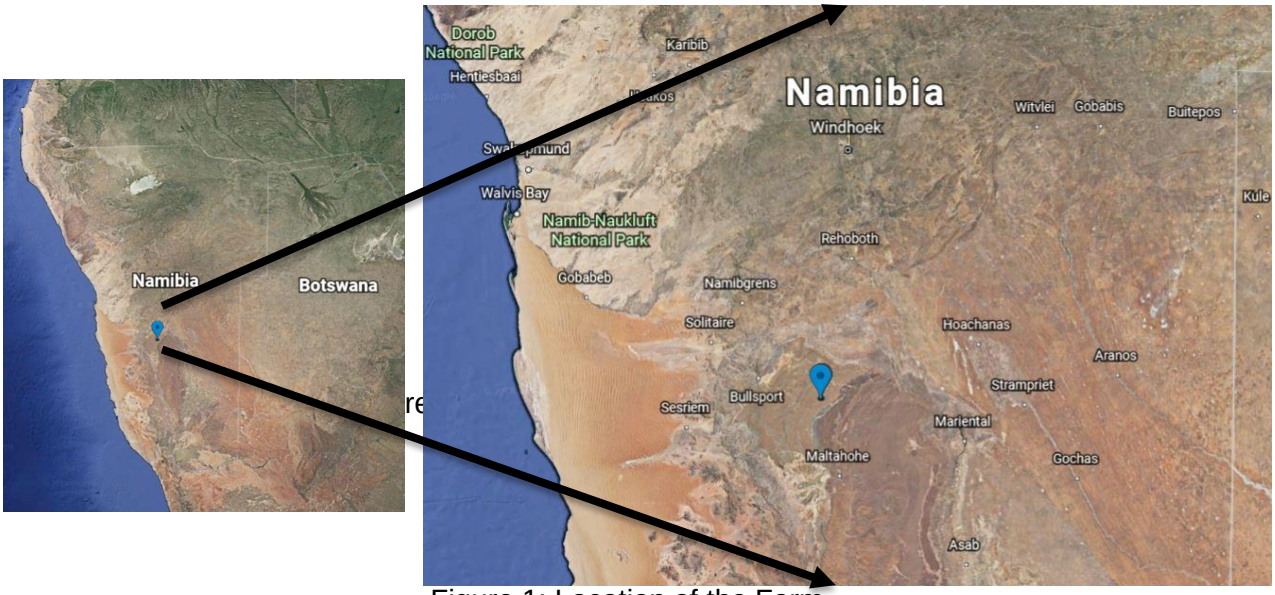


Figure 1: Location of the Farm

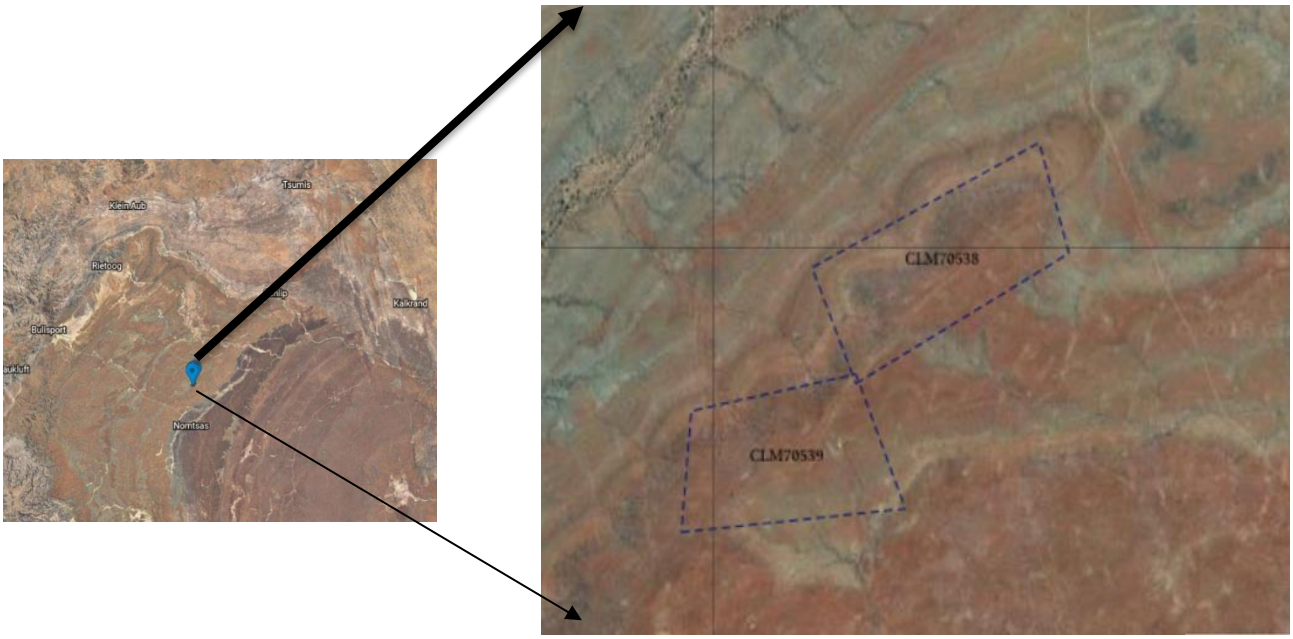


Figure: Location of the Stone Mining Area on the Farm

2. PROJECT DESCRIPTION

2.1 The need for the Project

The proposed project will be an important “unique supplier” of alternative building material, i.e. stones bricks and floor tiles in the Hardap Region. This project would also ensure that building material is available to the local community. It is necessary to have projects of this nature to sustain construction projects as well as household requirement in the area considering that the only source of bricks and tiles are from Rehoboth, Mariental and Windhoek.

Most importantly the project will contribute to employment creation through direct and indirect opportunities. In addition the project will also contribute to the local economy through infrastructure and skills development.

2.2 Project Activities

Stones are sourced from the outcrop deposits by means of manual digging. No blasting or drilling activities will be required, since the quality of the stones could be sacrificed if other techniques are used. The depth required is about 3 – 4 meters to uncover the slates of stone. The stones will be sorted, polished and cut into different sizes by means of a generator-operated cutting machine. It is estimated that about 100 **tons** of stones will be produced per month. It is anticipated that project will run for about 10 years at a planned production volume. An area of about 2ha will be affected during the expected lifetime of the operations.

The project will employ about 10 workers on permanent basis and several other workers on short term contract basis. The proposed working schedules will be shifts of 8 hours per day. Employees will only be sourced from within Namibia and all permanent personnel will be provided with accommodation on the farm. No night shift activities will be conducted.

2.3 Project infrastructure

It is planned to construct temporary structures that will be used for the following:

- Storage area for equipment and tools
- Ablution facilities and,
- Workers quarters

The water supply at the site will be sourced from a nearby borehole, which is currently not in use. Sanitation will be provided by means of septic system and accommodation will be provided for permanent employees.

Electricity will be generated by means of a diesel generator. Alternative energy sources like gas and solar will also be used to supplement energy requirements.

2 light vehicles and 1 truck will be used onsite and fuel will be stored in two 210 liter containers.

All processed materials (stones) will be transported to town Rehoboth or Mariental. Product sales will also be done onsite.

Access to the site will be limited to the existing gravel roads or tracks to the farm. However, accessibility becomes difficult during rainy seasons thus the access road is crossing over the river stream which often receives heavy flows during good rains. Alternative access routes to the site will not be considered since these type of delays are normally temporary.

2.4 Technology and Process Description

The project is a surface mining and does not involve any blasting or drilling as materials are excavated manually and then collected by means of a tractor / loader. The material is then sorted and cut into different sizes. Shallow pits will be created as a result of digging; this will require refilling with rejected material, i.e. waste material is used to refill the open pits.

The envisaged activities are expected to cause dust generation, but this will be limited since manual excavation methods will be used.

Generally, there will be no waste to be generated from the process. There only waste materials will be a silt and fine stones which will be thrown back in the pit. Moreover, these waste materials are not mixed with any toxic and thus pose no threats to the environment.

3. LEGISLATIVE REQUIREMENTS

In order to pursuit a state of sustainability the project will take a cognizance of relevant legislations, policies and guidelines. This also serve to inform the project developer of the requirements and expectations laid out in terms of these instruments which needs to be fulfilled before the commencements of the proposed project. The relevant legal frameworks are as follow;

3.1 Environmental Management Act 7 of 2007

The purpose of this Act is to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; to establish the Sustainable Development Advisory Council; to provide for the appointment of the Environmental Commission and environmental officers; to provide for a process of assessment and control of projects which may have significant effects on the environment; and to provide for incidental matters. The Act gives legislative effect to the Environmental Impact Assessment Policy. Moreover, the act also provides procedure for adequate public participation during the environmental assessment process for the interested and affected parties to voice and register their opinions and concern about the proposed project.

3.2 Environmental Impact Assessment Policy

Namibia's Environmental (Impact) Assessment Policy for Sustainable Development and Environment Conservation was approved by Cabinet in 1995. This policy requires that all policies, programmes and projects, as listed in the policy, whether they are initiated by the government or private sector, should be subject to an Environmental Impact Assessment (EIA). The Government of Namibia recognizes that EIAs are key tools to further the implementation of a sound environmental policy which strives to achieve Integrated Environmental Management (IEM). The purpose of the Policy is seen as informing decision makers and promoting accountability, ensuring that alternatives and environmental costs and benefits are considered, promoting the 'user pays' principle, and promoting sustainable development.

3.3 Water Resources Management Act 2004

This act provides provision for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. In addition the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent. The effluent of human waste under this framework is the main focus; hence mobile toilets are earmarked to be used to avoid any seepage into existing water course, infiltration into soil and etc.

3.4 Forest Act, 12 of 2001

Deforestation of natural forests has important implications for *soil erosion, biodiversity loss and global warming*. This Act requires that tree species and any vegetation within 100m from a watercourse may not be removed without a permit (S22 (1)). It also prohibits the removal of and transport of various protected plant species. The Act further requires any project activity that will result in clearance of certain Forests to obtain a Forest Permit beforehand.

3.5 National Development Plans

The National Development Plan No.4 stated that any development project must aim to promote the protection of biodiversity, the maintenance of essential ecological processes, life-support systems, and the establishment of sound environmental management systems for the benefit of Namibia'. The Environment sub-sector of NDP3 has identified four goals which the proposed mine should consider in order offsetting negative impacts:

Goal 1: Improved condition of natural resources and biodiversity throughout Namibia's different vegetation and habitats.
Goal 2: Improved living conditions in both rural and urban areas due to sound environmental management.
Goal 3: A strong climate-change strategy in place with Namibia prepared for managing the predicted impacts, especially those that affect the Namibians living in rural areas.
Goal 4: An enabling environment to foster environmental sustainability is created, including investments in necessary human resources development.

3.6 National Heritage Act 27 of 2004

The Act provides provisions for the protection and conservation of places and objects of national heritage significance, and to register to places and objects under that framework. The project will ensure that should any archaeological objects defined in the Act found in the course of its operations, it will be communicated to the custodian ministry immediately.

4. ASSESSMENT PROCEDURES

The following procedures were sued to collect baseline data, assess project impacts on the environment and local community and propose mitigation measures.

4.1 Baseline Assessments

Baseline data were collected by means of direct observation from the sites as well as from secondary data, i.e. existing document relevant to the site such as socio-economic reports, and surveys.

4.1.1 Site Visits

The initial site visit was conducted in June this year and several site visits were done in August. Data that were collected from site visits includes, flora and fauna of the sites, information regarding settlements, access to the site etc.

4.1.2 Review of previous studies

The following secondary sources were reviewed;

- Relevant legal frameworks, i.e. Acts, Policy and Guidelines
- Previous studies in the area (i.e. soil and vegetation studies)

4.2 Stakeholder Participation process

4.2.1 Identification of Interested and Affected Parties and stakeholders

The envisaged project was introduced to all neighboring farm owners, The Ministry of mines and Energy and the Ministry of Environment and Tourism. The aim of these consultations was to ensure that all relevant Government ministries, regional and traditional authorities, are aware of the development,

5. ENVIRONMENTAL AND SOCIO-ECONOMIC DESCRIPTION

5.1 Climate, Vegetation

The Farm is located in the central southern part of Namibia. This project area is flanked by three biomes: the Succulent Karoo to the south, the Desert to the west, and the arid Kalahari to the east,

5.1.1 Climate

The climate of this area is essentially continental and is little affected by the ameliorating influences of the Atlantic Ocean. It is an arid biome and most of the rivers are no perennial. Historically, most rain falls in late summer (December to April). The low rainfall is unreliable (coefficient of variation of annual rainfall up to 40%) and droughts are unpredictable and sometimes prolonged. Rainfall quantity and reliability increase towards the east, and this is one of the key reasons why the Proponent intends to diversify and consider the stone mining as an alternative means of income generation.

Rain is brought by unpredictable late summer thunderstorms and occasional inland intrusions of winter high-pressure systems from the west, whereas convectional thunderstorms and southerly movement

5.1.2 Vegetation

The project site is dominated by low (dwarf) shrubs (generally less than 1 m tall) intermixed with grasses, succulents, geophytes and annual forbs. Small trees occur only along most drainage lines on the farm or on the rocky outcrops.

The farm has a relatively low vegetation diversity, and during the site visit it was observed that the area received very little rainfall.

Natural disturbance factors that influence vegetation dynamics are mainly linked to human actions and farming methods. The Proponent keeps a limited number of livestock to preserve the natural vegetation and ensure the vegetation diversity is not significantly disturbed.

5.1.3 Surface and Ground Water

No surface water was observed on the farm and one well has been sunken near the Farm house. This well is primarily used for providing water to the livestock.

5.1.4 Economy and Development

The surroundings areas of the project area is relatively under-developed and the locals mainly practice livestock farming. The main source of energy for domestic use is wood or charcoal. The main household income is derived from farming or from wages and salaries that is obtained by farm owners that work in urban centers. Other income also comes from cash remittances, small business or non-farming, and pensions.

Much of the employment and economic activity in the region thus relies on farming and this contribute substantially to the local economy. Tourism is also an important flourishing sector in the region, with innovative community and business partnerships evolving. The region has abundant of great assists which attract more tourists to the region.

The Proponent intend to introduce stone mining and polishing, as an alternative economic activity in this region. The will potentially provide new employment opportunities and decrease the dependence on livestock farming.

6. SUMMARY OF POTENTIAL IMPACTS AND PROPOSED MEASURES

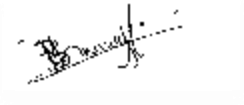
Theme	issue	Description	Measure
Biodiversity	Vegetation Clearance	The project will result in clearance of vegetation during its operational phase	• The project should with maximum concern reduce the massive clearance of vegetation. Furthermore the rehabilitation plan must be developed prior to the project implementation and should follow after site closure. • The project must reduce disturbance to natural habitats and other ecological hotspots at the site. **NO** removal of protected species found and should be reported to MET as soon as possible. • Furthermore, the project must develop a Site environmental policy which should be adhered to all the time
	Habitant destruction	It will also result in the disturbance of biodiversity by changing the natural habitants of both floras and fauna	
Land Use	Soil erosion	Project activities may increase the vulnerability of soil to erosion by means of water or wind	• Filling of open pits and avoid dinging of deep trenches • Apply some mulching on the soil to avoid wind erosion
Waste	Sewage	Sewage waste generated may pollute the environment if not properly managed	• The project must ensure the use of a septic system and avoid any leakage
	Solid waste	It is also expected that extra solid waste i.e. plastic, bottles etc will be generated at the sites	• All waste of different kinds produced at the site must be contained separately (i.e. plastics, bottles, etc) and dumped properly at the municipal dumping site
Water	Over extraction,	The main water source is Groundwater which is a limited water source	• It should be noted that this is a limited water source and therefore water must be used sparklingly and no pollution of these and other water sources may be tolerated
	River system	Although the project is not designated within the 200m proximity of the river system, uncontrolled activities may interrupt the functioning of the river system (i.e. driving, waste management)	• No kind of waste should be discharged directly into the river stream. Precaution must be taken when crossing over the river, especially when it flowing •

Occupational and Public Health and Safety	Dust	It is expected that the project will result in the production of dust as result of excavation activities or from increased vehicle traffic on roads (gravels)	• Provide minimum driving speed • Sprinkle water on the access roads on routine basis
	Noise	The excavation activities will not result in excessive noise, however concerns must be raised in favor of the community and workers	• All employees must be provided with safety clothes (dust mask, ear plugs, safety wears etc)
	Traffic	Possibility of heavy traffic to and from the site may be a nuisance to the other land owners	• Avoid driving during night hours and adhere to the minimum speed
Economic	Employment	The project will result in creation of job opportunity	• Source people from local community and provide training to enhance capacity
	Local economy	The project must contribute to the emancipation of the local economy	• The project must buy from local suppliers and form relation with them
	Diseases	Migrant workers may contribute highly to the transmission of diseases including HIV and AIDS.	• Employ as many local people as possible • Encourage regular check ups • Provide HIV/AIDS awareness to all employees

7. CONCLUSION AND RECOMEDATIONS

The environment baseline study was conducted in the project area by both secondary data & primary data collection. Hence it can be concluded that the present environment status of the study area is good enough for the enhancement of production capacity. However, adoption of proposed mitigation measures to enhance environmental sustainability.

It is therefore recommended that the Environmental Commissioner consider an approval to this Scoping Report, Its Environmental Management Plan (subjected to conditions) and thus issue an Environmental Clearance Certificate to the Proponent, Mr. Romeo Nel



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Mr. Julian Van Wyk
EnviroSolutions

Reviewed by:

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Mr. Alan Jenneker

8. APPENDICES

8.1 Appendix A: Invitation for Stakeholder Comments

- This was posted at the surrounding farm entrances, as well as the project site farm gates

8.3 Attachments:

The following documents has been attached

a). Mining Licence; Ministry of Mines and Energy
b).
c).
d).