



Background Information Document (BID)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) STUDY AND ENVIRONMENTAL MANAGEMENT PLAN FOR TUBUSSIS SMALL-SCALE MINING HOTSPOT IN ERONGO REGION

PURPOSE OF BID

- Provide a brief background about the study
- Explain what the EIA process entails & the possible environmental impacts; and
- Invite Interested and Affected Parties (I&APs) for comments and inputs

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Mr. Joseph Kondja Amushila, here to refer as, an Individual Consultant (IC), has been appointed by the United Nations Development Programme (UNDP) to conduct a collective Environmental Scoping study and develop Environmental Management Plans (EMPs) for Tubussis Small-Scale Mining (SSM) hotspot in Erongo Region.

The Tubussis mining hotspot consists of mining claims which are owned and operated by different individuals and/or as groups. Mining activities mainly include artisanal and semi-mechanized methods which are used in extracting a wide range of gemstones. Although mining activities have been taking place for many years in this area, there has not been any Environmental Impact Assessment study done. Thus, ECCs for SSM have in the past been issued upon completion of Environmental questionnaire and signing a pro-forma Environmental Contract. In terms of the Environment Management Act (Act No 7 of 2007), all mining and quarrying activities cannot be undertaken without an Environmental Clearance Certificate, hence this study.

1.2 Purpose of the EIA

To facilitate the development of EMPs, and subsequent issuance of ECCs by the Environmental Commissioner, MME is assisting Small-Scale Miners at the mining hotspot to comply with the statutory requirements.

The purpose of the EIA study is as follow.

- i. Identify, investigate, and evaluate all potential impacts of the mining activities on the physical environment, social, cultural, and economic environment.
- ii. Review applicable legislations.
- iii. Consult relevant stakeholders and potential Interested and Affected Parties (IAPs)
- iv. Prepare Environmental Scoping reports
- v. Compile Environmental Management Plans for each mining site
- vi. Submit the Environmental Scoping Reports and Environmental Management Plans (EMPs) to MEFT in a prescribed manner as per EMA Regulations of 2012.

1.3 Terms of References (ToR)

The ToR provided by the client are inferred to the requirements of the Environmental Management Act (Act No. 07 of 2007) and its Regulations of February 2012.

The consultant is required to conduct a collective Environmental Scoping study, compile Environmental Management Plans for the two small-scale mining hotspots as mentioned above and submit to MEFT for approval.

2. DESCRIPTION OF THE SMALL-SCALE MINING ACTIVITIES

The mining hotspot of Tubussis encompasses several mining claims, owned, and operated by different individuals and/ or groups, from which a range of semi-precious stones such as *tourmaline*, *smoky quartz*, *beryl*, *amethyst*, *prehnite*, *rock crystals* and *Schorl* are extracted. Mining methods used in extraction of these gemstones varies from Artisanal to semi-mechanized.

a). Artisanal – Operations ranges from open pit to underground small-scale mining. This method mostly involves manual digging and excavation of the overburden and/or drilling on the granite rock with an identified crystalized miarolitic or vein. The depth of excavation depends on the quality and quantity of crystals after which the pit/vein can be abandoned for a more promising site.



Figure 1 A: underground pit at Erongo mountains)

Equipment used in Artisanal methods includes.

Equipment	Uses
Pick mattock and Shovel	excavation
Jackhammer	rock breaking
Driller	drill holes/rock breaking
Generator	power
Chisel, Hammer	extraction
Small air compressor	Ventilation

b). **Semi-mechanized** – This method includes using excavator, bulldozers, and loaders to remove overburden and rock hammer to break rock bodies. Some small-scale miners also use Air Compressor for rock breaking. While some SSM own semi-mechanized equipment most of them relies on middlemen.



Figure 2; Semi-mechanized mining operations

Equipment	Uses
Hydro Compressor	Rock breaking
Excavator, TLB	Excavation
Spade, Chisel, Hammer	Extraction

Economic gains from small-scale mining activities is not guaranteed as weeks and months can pass by without extracting valuable gemstones. However, the two hotspots occasionally do produces high concentrations of exceptionally good quality crystals in “pockets”. The most sought after gemstones are aquamarine crystals. Grading is also done manually based on the attractiveness of the gemstones. High quality crystals are sold to established buyers in nearby towns i.e. Uis, Karibib, Swakopmund while lower value gemstones i.e. black tourmaline are sold locally to collectors and tourists



3. DESCRIPTION OF THE AFFECTED ENVIRONMENT (STUDY AREA)

3.1 Tubussis

a). Locality

Farm Tubussis is located around 21°40'08" S 15°23'10.6"E via the D2306 road off the Omaruru-Usakos road in Erongo Region.



b). Land tenure and surrounding land uses

The larger part of Farm Tubussis is a communal land or State land under the !Oe-#Gan Traditional Authority and a small part to the north-east is a commercial farmland (See appendix A). Politically, Farm Tubussis falls under both Dâures Constituency and Karibib Constituency of Erongo region. Farm Tubussis also falls under the #Gaingu Conservancy.

Small-Scale Mining activities at Tubussis is concentrated in three main areas namely; Erongorus, Springbokfontein and Tumib area. The SSM at Erongorus or Erongo Complex are operating on the top and base of the Erongo Mountains and also on the part of the private farmland. The area of Springbokfontein and Tumib are predominantly open grazing areas which supports an abundance of wildlife and domestic animals. Settlements in the area of Farm Tubussis, are such as; Kudubis, Tubussis and Uigaran. Other surrounding land uses include; Omandumba Guest Farm and Bush Camp, Erongo Mountain Nature Sanctuary and Hohenstein lodge. In terms of Archeology, some places of nomadic pastoral importance such as Rock paintings and caves are found in the nearby farms.

c). Socio-economic settings

There are approximately 100-120 small scale miners operating on Farm Tubussis. These miners normally operate in groups on the 35 mining claims registered in the area. They are not organized into an association. However, some individuals are members of the Erongo regional small-scale miners' association (ERSMA) which previously offered services such as an equipment/tool hire at subsidized rates.

Most of the Small-Scale Miners are residents at place of work while few of them travel to nearby settlements or farms. Accommodation at the site is mostly tents or temporary houses made of corrugated iron sheets. Water for SSM at the Erongo Mountains complex, is sourced from natural fountains, whereas for SSM at Tumib area is abstracted from boreholes. Open fire cooking is a common practice among the SSM who reside at the mining sites. Waste collection and disposal of general waste i.e. litter, old clothes, fencing materials etc. is hardly done as windblown waste can be observed in the surroundings.



Due to the fact that most of these SSM are not formally employed and some are self-employed, there are no fixed remunerations. Most of the SSM depend on middlemen who offer equipment and other necessities such as water and firewood in exchange for a share in the production. Most the SSM have basic Personal Protective Equipment such as gloves, boots, reflective overalls, underground torches and dust masks. However, they lack proper PPE suitable for heavy duty work, especially for underground works and heights i.e., kneecaps, safety hat, respirator, safety harness etc. Small-Scale Miners rely on traditional knowledge and skills for day-to-day survival such as first treatment and cure against injuries or sickness, protection from poisonous plants and identification and tracking of habitats of dangerous predators.

d). Biophysical settings

The area of Tubussis is located on the foot of the Erongo Mountains Complex. The Erongo Mountains is one of the largest Cretaceous granitic complexes in northwestern Namibia. The Erongo Mountain Complex is surrounded by high granite cliffs, volcanic rocks, sandstones and siltstones of the Triassic Lion's Head Formation and interspersed with peripheral and central granite intrusions. The Erongo Mountain complex is made up of a layered sequence of darker, silica-poor to lighter colored, silica-rich volcanic. The weathered Erongo granite consists of miarolitic cavities and pegmatite pockets.



The vegetation of the granite ridges of Erongo Mountain is dominated by *Acacia reficiens* along with other species such as: *Sterculia*, *Commiphera*, *Aloe dichotoma* (quiver tree), *Euphobia*, *Boscia albitrunca*, just to mention a few. Other species such lead wood, fig tree, Ana tree and umbrella thorn can be found in the

dry riverbeds.



The other mining hotspots of Farm Tubussis in the Tumib and Springbokfontein area are open gravel plains characterized by pegmatite outcrops and dry river courses. Vegetation in these areas is characterized by trees, shrubs and bushes of common species such as *Acacia*, *hibiscus*, *Adenia pechuelii* as well as succulents and herbaceous grass species such *Crotalaria poclolarpa*, *stipagrostis*, *panicum coloratum*. Protected species of *Boscia Albitrunca* and *Boscia Foetida* were also observed in abundance.



The Tubussis area supports an abundance of both wildlife such as *Mountain zebra*, *kudu*, *oryx*, *cheetah*, *leopards* as well as *monkeys*, *reptiles*, *vertebrates* and domestic animals such as Donkeys, Cattle, Sheep and Goats.

4. ASSESSMENT PROCESS

4.1 Baseline study

The EIA study started with the collection of baseline information both about the proposed development and the affected area. Baseline information will be used as a basis for the assessment of potential impacts.

This BID is prepared to provide background information of the project to relevant IAPs and stakeholders in order to solicit

4.2 Public Consultation

Consultations form an integral part of the EIA process; hence, relevant stakeholders are identified and invited to submit comments for consideration in the study.

The consultation process will enable an integrated and transparent approach which will result in a sustainable development that is environmentally friendly, economic viable and socially acceptable. The consultant will consult relevant stakeholders and Interested and Affected Parties (IAPs).

✓ List of identified stakeholders

Tubussis	Xoboxobos
Erongo Regional Council	
#Gangu Conservancy	Tsiseb Conservancy
Karibib Constituency	Uis Settlement
Daures Constituency	
!Oe-#Gan Traditional Authority	Daure Dama Traditional Authority
MEFT, MME, MAWLR	
National Heritage Council (NHC)	
Small Scale Miners Association	
Erongo Mountains Sanctuary, Omandumba Farm	Elephant Rock Lodge

Above are the identified stakeholders that will be issued with this BID and will be invited to provide inputs for consideration in the Scoping report.

✓ Potential Interested and Affected Parties.

Potential Interested and Affected parties (I&AP) were notified through newspaper advertisement and public Notices that were placed at different public venues. The newspaper advertisement appeared twice in two separate newspapers (The Namibia and New Era newspapers) for two consecutive weeks. In addition, invitations to the public meetings were done through the local Traditional Authorities.

The public meetings are scheduled as follows;

For Xoboxobos

Venue: Community Hall, Uis
Date: 30 September 2020
Time: 14:30

For Tubussis

Venue: Community Hall, Tubussis
Date: 01 October 2020
Time: 14:30

Small Scale Miners at both hotspots were directly interviewed during the site visit and their inputs were considered for incorporation in the Scoping report.

4.3 Scoping

The scoping study will provide detailed information about the Small-Scale Mining activities and description of the receiving environment.

4.4 Assessment of potential impacts

Assessment of potential impacts of SSM activities on the socio-economic and biophysical environment will be conducted using different matrices. Impacts will be rated in terms of significance based on the nature, probability, intensity and extent.

4.5 Scoping Report and EMP

Draft Scoping Report and Draft EMPs will be circulated to all stakeholders and registered IAPs for comments before submitting to MEFT.

5. PRE-IDENTIFIED ISSUES

Below is a list of issues of concerns that were identified during the site visits and consultations with Small-Scale Miners. These issues will be investigated in details during the Scoping phase.

5.1 Socio-economic issues

Aspect	Description of impacts	Nature of Impact
Marketing	There is lack of market information to enable SSM to sell their products at right price	Negative Establish formal market for gemstones and Provide available market information
Mining Claim Registration process	Due to lack of awareness or due to the cumbersome registration process, some SSM were unable to claim the mining spots they have been operating for many years and as result lost their places to Claim Owners. This has resulted in conflicts among SSM as well as between SSM and Claim owners. Some miners also feel that their digging/mining spots are too small to register a Mining Claim	Negative
Land use	Some Claim owners register and peg claims without consultation with the local Traditional Authority or Conservancy. This could result in land use conflicts	Negative <i>According to the Mineral Prospecting Act, any person who wants to carryout prospecting or mining operations on Communal land should notify the TA and Board prior to making any application of the intended activities.</i>
Support	Most of the SSM are in need of	Neutral (The more advance the mining operation, the more aggressive its impacts to the environment. However, Advanced methods are more safer for SSM)
Livelihood	SSM activities serves as livelihood support for many people	Positive
Economic contribution	SSM can be an important contributor to the GDP	Positive -Formalization and Protection of the SSM industry -Encourage value addition and reduce export of un-polished products.
Gender issue	Since the gemstone traders are often women, the gender ratio for this industry has been somehow improved.	Positive

5.2 Biophysical issues

Aspect	Description of impacts	Nature of Impact and possible measure/s
Surface disturbance	Vegetation loses from excavation and trenching process	Negative Rehabilitation of mining areas should be concurrent with the mining activities. (SSM excavate and use excavation sites continuously).
Waste Management	Windblown litter can be observed at SSM camps and surroundings There are no proper ablution facilities mining areas	Negative (Some SSM do their best to collect and safely dispose waste generated)
Public safety	Un-rehabilitated trenches and pits pose serious threats to wildlife and domestic animals.	Negative Encourage rehabilitation, Mining tailing should be discarded in an orderly and controlled manner
Nuisance	Generation of nuisance from noise and dust associated with mining activities	Negative
Landscape	Mining trenches and pits decrease the aesthetic view and attractiveness of the landscapes	Negative Encourage rehabilitation, Mining tailing should be discarded in a orderly and controlled manner
Grazing	Mining activities in the area of Tumib affects an area suitable for grazing	Negative (Pegging of future claims should be done in consultation with Traditional Authorities and Conservancy. Areas with high abundance of grazing should be avoid.
Groundwater abstraction	The abstraction of groundwater resources, especially in the area of Tubussis is uncontrolled and could results to unsustainable utilization of this resources.	Negative Drilling of boreholes should be approved by MAWLR and utilization of groundwater for commercial purpose must be approve by MAWLR.

How to be involved?

- Registering your inputs (comments or questions) to the project with the EAP
- Attending the scheduled Public Meeting
- Receive the BID, completing and submitting the registration form (here attached)
- Deadline for all comments and registration is on the **14 October 2020**

RESPONSE SECTION: INTERESTED AND AFFECTED PARTIES

1. PERSONAL DETAILS

Name	
Organization	
Physical Address;	
Cellphone	
Telephone	
Fax	
Email:	

2. Comments:

3. Questions:

KINDLY PROVIDE YOUR INPUTS AND COMMENTS TO info@greengain.com.na or greengaincc@yahoo.com on or before 27 September 2019: Enquiries: Mr. Joseph Kondja Amushila at Cell: 0811422927 or jkondja@gmail.com

Appendix A: Land tenure: Tubussis

