ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED INSTALLATION OF AN ABOVE GROUND PETROL TANK IN OMINGONDO, ALONG D3089 ROAD FROM OTJINENE , OMAHEKE REGION



MAY 2022

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# EXECUTIVE SUMMARY

Over the last two decades, Namibians have become increasingly aware of the necessity of environmental protection and conservation efforts. Economic development policies must now be compatible with environmental aims, according to most experts. This necessitates the integration of environmental factors into the development process. As a result, understanding how the environment works has become critical in making choices and judgments that would eventually encourage sound development. As a measure, Mr Jesaya Kuutaa the (proponent) must guarantee that the proposed above-ground petrol tank installation strikes sustainable balance between development and environmental protection.

The proposed project primary activity will be to build/install an above ground tank with a capacity of 23 000 litres (23 m<sup>3</sup>), consisting of one dispenser pump, and related infrastructure such as a stop shop, a car wash, tires repair shop and ablution facilities. This will encompass half a hectare (0.5 ha) of land within the proponent's owned farm.

# Purpose of the scoping report

Mr Jesaya Kuutaa appointed Namib-Enviro Consultants to conduct an environmental scoping assessment for the proposed installation of an aboveground petrol tank, as required by Namibia's Environmental Assessment Policy of 1995, the Environmental Management Act No. 7 of 2007, Government Notice No. 29 of 2012 (Listed Activities), and Government Notice No. 30 of 2012 (EIA Regulations).

This environmental scoping assessment will help to reduce or mitigate negative consequences by generating a variety of project alternatives for the above-ground tank installation. In general, the goal of this Environmental scoping report is to predict and prevent, limit, and/or manage potentially major negative impacts of development that could:

- Be too expensive to fix in the future
- > Put current and future generations' lives, livelihoods, or health at risk
- Cause irreplaceable resource losses and less possibilities for future well-being;
- Assist in the search for ways to maximize development's potential advantages.

# Alternatives considered

According to the Environmental Management Act (EMA) and EIA regulations, alternative sites (different localities), alternative projects (different activities), and alternative designs should

be taken into account during planning phase to see if they would achieve better environmental and social economic benefits.

# Project alternative

There was no project alternative since the proposed projected development of an above ground tank installation is suitable for the site examined, as per impact assessment of the biophysical and socio-economic elements covered in depth in this study. This, however, is only true if the development is planned and managed in compliance with the mitigation measures outlined in this report and in the Environmental Management Plan (EMP).

# No-go alternative

The projected environmental impacts from the proposed installation of the tank would not occur if the project's activities were not carried out, but, the project's social and economic benefits would not be realized. There would be no an opportunity to explore the surrounding area's overall character, as well as a variety of job opportunities during the construction and operational phases.

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# 1. Introduction

# 1.1 Project background

The proposed project primary activity will be to build/installed an above ground tank with a capacity of 23 000 litres (23 m3), consisting of one dispenser pump, and related infrastructure such as a stop shop, a car wash, tires repair shop and ablution facilities. This will encompass half a hectare (0.5 ha) of land within the proponent's owned farm.

Farmers living near the project site will benefit from this project since they will no longer have to spend as much money on gasoline to run generator pumps to draw water from their boreholes. The proposed project will also open up opportunities, necessitating the need for transportation services and accompanying infrastructure such as fuel stations, car wash, take away and garages.



Figure 1 View of the portion of land where the proposed project is to be undertaken

# 1.2 Proposed tank design



Figure 2 Sample of aboveground fuel tank design similar to the proposed project

# 2. Description of existing project activities

# 2.1. Project location

The proposed aboveground petroleum tank infrastructure will be located in Omingondo village, along D3089 road from Otjinene Omungondo village 100km from otjinene business district, Omaheke region. The proposed development will result in the installation of a tank with a dispenser for quick vehicle filling. The proposed fuel storage tank will hold 23000 litre with one dispenser. On a plot within the proponent's owned farm, with a total area of 0.5 hectors.

Geographical map



# 2.2 Project description

The proposed project is intended to reach out to a wide range of people from many walks of life, and to alleviate the local motorists' fuel deficit, specifically the local farmers. The proposed installation project will also provide a much-needed contemporary fuel, as well as all accompanying services, to tourists and residents of the nearby communities, as well as long-distance motorists. During the construction phase, public access to the service area will be prohibited. The construction area/site will be surrounded by barbed wire fence, limiting access to only construction and management employees. In addition, there will be security guides to guide the site at all time.

# 2.3 Environmental Protection Measures

This study acts as the Environmental Impact Assessment that is presented to MEFT for approval as a document containing a detailed project description, outlining Policy, Legal, and other Administrative Frameworks to which the proponent must adhere. Environmental audits will be conducted on a regular basis during and after the tank is installed. Employees will be safe, and public health will be protected. Before any work commences, the site plan must be approved.

#### 2.3 Proposed project activities

The following is a description of the activities related with the planned patrol tank installation preconstruction, construction, operating, and rehabilitation stages that have been examined as potential sources of impact in the impact assessment:

- $\checkmark$  The backside of the facility will be surrounded by fencing.
- ✓ Water and power supply (use of water from the existing boreholes and installation of diesel generator)

Construction, operation, and possible decommissioning are the three phases of the project. The following are the activities that are included in all phases:

# **Construction Phase:**

- $\checkmark$  Transport and installation of storage tanks and other necessary equipment.
- ✓ Installation of fuel pipelines, as well as the development and installation of dispensing pump islands.
- $\checkmark$  Installation of the electrical supply that goes with it.

✓ Construction of related structures and infrastructure.

# **Operational Phase:**

- $\checkmark$  Road transport tankers will be used to fill storage tanks.
- $\checkmark$  Fuel will be dispensed into automobiles and other containers that have been authorized.

# **Decommissioning Phase:**

Removal of all infrastructure that will not be reused during future land usage; and land rehabilitation.

#### 2.4 Solid waste and sewer management

# Waste Management

Waste containers will be provided for each section to keep waste temporarily before it is delivered to the central solid waste collection facility. According to Ministry of Health Standards, the solid waste collection centre for the entire station will be strategically positioned and covered on top and on the sides to protect from weather and scavengers.

#### Sewer Management

There isn't a single sewer line that serves the entire expansion area. As a result, the planned site will be served by a traditional septic/soak pit system. This means that the Proponent will hire a waste management business that has been approved by NEMA to retrieve sludge from the septic tank on a regular basis.

# 2.5 Fire Fighting Protection

The proponent must guarantee that there are methods and procedures in place for water storage and supply in the event of a fire, as well as a fire foam system to protect fire-prone regions. To ensure safety in the event of a fire, an emergency water supply system will be erected around the Service Station. At least two fire extinguishers containing 9 kilograms of chemical powder will be on hand at all times, and the extinguishers will be checked every six months. To avoid fire triggering items being used in or around the facility, notices prohibiting smoking and cell phone usage must be prominently displayed in the forecourt.

# 2.6 Lighting

Within the facility, and in the vicinity of the service area, lighting will be provided along the entire length of the internal road network. This will be done so that vehicle routes and directions are easily observable at all times of the day and night.

# 2.7 Implementation Strategy

The project will begin with the marking of the project area, followed by fencing and the onsite construction/installation of the tank. The project will entail the removal of overburden and the excavation of a trench for the fuel tank. The majority of the labour will be done manually.

#### 3.Legal framework

This section examines the legal framework in which the petrol tank project's proponent must operate in order to meet environmental management criteria. This involves an emphasis on national and international legal compliance during the development, operational, and decommissioning phases of the project. The Proponent shall be guided by all applicable policy, regulatory, and other criteria in operating the project in compliance with best practices and environmental management requirements. A list of activities that require an Environmental Clearance Certificate (ECC) is provided in Section 27 of the Environmental Management Act 2007 (Act No. 7 of 2007) (EMA) (herein referred to as: listed activities). The EMP should be compliant with the Environmental Management Act (EMA), Act No. 7 of 2007, and the 2012 EIA requirements (Government Notice: 30).

Legislation/policy	Provision	Relevance to the project
Environmental Assessment Policy (1995)	Promotes Sustainable development and Environmental Conservation emphasize the importance of Environmental assessments as a key tool towards environmental Sustainability.	Environmental Protection
Environmental	Requires that projects with	All formal requirements as
Management Act	significant environmental impact are	per the act will be duly
No. 07 of 2007	subject to an environmental assessment process (Section 27).	identified and adhered to. The Project will follow this act accordingly and consider all aspects inclusive of the assessment process and acquire environmental clearance.
Petroleum Products	Regulation 3(2)(b) states that "No	A Petroleum Retail License
and Energy Act (No.	person shall possess or store any fuel	should be applied for and
13 of 1990)	except under authority of a licence or	obtained from the Petroleum
Regulations (2001)	a certificate, excluding a person who	Affairs Division of the
	possesses or stores such fuel in a	Ministry of Mines and
	quantity of 600 litres or less in any	Energy (MME).
	container kept at a place outside a	
	local authority area	

Table 1 Applicable environmental legal framework and their relevance to the project

Soil Conservation,	Makes provision for the prevention	Monitor and apply the soil
1969 (Act 76 of	and control of soil erosion	conservation mechanisms
1969) and the Soil		
Conservation		
Amendment Act		
(Act 38 of 1971)		
Forest Act 12 of 2001	To provide for the protection of the	Forestry permits maybe
-	environment and the control and	i oresuly permits maybe
Forest Act	management of forest. Relevant	required for vegetation
Regulations 2015	sections:	clearing
	Approval required for the clearance	
	of vegetation on more than 15	
	hectares (Section 23, subsection 1	
	(b)).	
Public Health Act	Advocates for Public Health	Personal Protective
(Act	and safety	Equipment (PPE)
No. 36 of 1919)		
The Occupational	Advocates for employee	In the working context
		"SAFETY" implies "free
Safety and Health	and public safety, health	from danger"
Act		
No. 11 of 2007		
Communal Land	To provide for the allocation of	Ensure communication and
Reform Act 5 of	rights in respect of communal land;	necessary approvals to
2002	to establish Communal Land Boards;	communal developmental
	to provide for the powers of Chiefs	activities
	and Traditional Authorities and	
	boards in relation to communal land;	
	and to make provision for incidental	

National Heritage	The Act provides provision of the	No heritage features were
Act,	protection and conservation of places	observed within or around
No. 27 of 2004.	and objects with heritage significance.	the site. Procedures and mitigation measures
		presented in the EMP should
		be applied
National Solid Waste	The Strategy ensures that the future	Waste management plans
Management	directions, regulations, funding and	
Strategy	action plans to improve solid waste	
	management are properly co-	
	ordinated and consistent with	
	national policy, and to facilitate co-	
	operation between stakeholders	

# 4. Description of the current environment

# 4.1 Introduction

The Omaheke Region is located east of Windhoek and has an area of 84,981 km2 with a population of around 70,800 persons (density of 0.83 per km2). Grassland and sparsely vegetated shrub land, as well as scattered tiny pockets of closed canopy forest, define the region.

Except for community lands in northeast areas, land tenure is largely privatized. Rangeland cattle farming, much of it intensive commercial cattle farming, and a considerable amount of smallholder subsistence agriculture, predominantly in communal areas, make up the majority of land use (Mtuleni, 2019). Namibia is the driest country in Sub-Saharan Africa, and severe

droughts are common. Droughts are expected to grow more often and unpredictable in the future.

# 4.2 Climate conditions

#### 3.2.1 Temperature

Summers in the region are often hot, with temperatures frequently exceeding 30 degrees Celsius. Summer nights are pleasant, with temperatures ranging from 12 to 18 degrees Celsius. Winter nights and early mornings, on the other hand, are typically frigid, with temperatures near or below freezing in southern places. Temperatures quickly climb to between 15 and 25 degrees Celsius, resulting in mild weather over the majority of the winter daylight hours (Mendelsohn & el Obeid, 2002).

#### 3.2.2 Rainfall

The highest rainfall months are July and August, with January and February being the wettest. The average annual precipitation varies greatly from year to year, ranging from 350 mm in the south and far west to 450 mm in the north. Many rainfalls are either too brief or too isolated to encourage plant development, and high evaporation rates result in significant water loss.

#### 4.3 Geology and Soils

According to Mtuleni (2019), the Omaheke Region is located on the western margin of a huge sand basin, which affects most of the region's vegetation, animals, farming, and mineral possibilities. Aquifers with higher yields can be found in a number of locations, including Grootfontein, Leonardville, Hochfeld, and the Eiseb. Because there are no water catchment streams, tributaries, or rivers on the site, most of the rain that falls on the surface infiltrates directly into the Kalahari sandy soil.

#### 4.4 Flora and fauna

The vegetation is mostly found in the Tree Savannah and Woodland (Northern Kalahari), but the southern half, in particular, is strongly transional to the Camelthorn Savannah (Central Kalahari), while the western part is bordered by the Thornbush Savannah. This results in very homogeneous landscapes in the middle regions, with very gradual variations in composition towards the far south-east, and more distinct changes in composition towards the west and south-west, as the vegetation transitions into Thornbush savannah. The research region lies within the southern edge of the Karstveld in the extreme north.

Based on limited herbarium records and the area's overall inaccessibility, the plant diversity of the research area is predicted to be low medium diversity (Mendelsohn et al. 2002). The

vegetation is categorized into two main types: the Sandveld, which is dominated by Terminalia sericea and Combretum species, and the Hardeveld, which is a mix of savannah, Acacia species, Karstveld elements, wetland vegetation, and vegetation on shallow calcareous soil. The Hardeveld is mostly found as a fringe around the Kalahari's sand plains, but it can also be found in spots within this sand plateau (Herbarium of Namibia, 2015).

# 4.5 Hydrology

In this area, there are no permanent rivers. After heavy rain, dry omuramba drainage channels may convey water for a short time. Almost all of the water used by people and livestock is pumped from boreholes in the area or piped in from groundwater reserves at Berg Aukas and Kombat. Aquifers, which are bodies of water trapped either in fissures in the bedrock or in the Kalahari sands, are pumped out of the ground. Aquifers are found at various depths beneath the surface, and the amount and quality of water available in them varies as well.

# 4.6 Socio-economic environment

The region's economy is dominated by farming. Maize and Pearl Millet crops are seldom productive, and subsistence farming is difficult. The total number of livestock in 2001 consited of 305 000 cattle, 132000 goats and 53000 sheep. About 800 farmers each own more than 100 cattle. There is much variation in household wealth, and many of namibia's poorest people livehere (NDC, 2001).

#### 5. Environmetal Impact Assessment

Namib-Enviro Consultants will adopt an Environmental Management Plan (EMP) in accordance with Namibian environmental regulations and international methodologies in hopes of preventing, minimize, and mitigate any negative consequences while promoting good outcomes. This chapter will analyse possible environmental and socio-economic consequences based on the current environmental and social structure of the project operations on ground.

#### 5.1 Impact assessment methodology

The magnitude and temporal and spatial scales of the project, as well as the specific activities involved with the project, are used to determine the significance of an impact. At all times, the evaluation of the environmental effects of development operations should attempt to be objective and unbiased. Environmental activities, on the other hand, are vulnerable to the subjectivity that comes with attempting to quantify significance. The significance of an effect is determined by the context (spatial and temporal scale) as well as the strength of that impact.

# 5.2 Impacts assessing criteria

The extend ,magnitute, and duration of each impact will be detailed. These criteria would be used to determine the significance of the impact, first without mitigation and then with the most effective mitigation solution or measures in place. The mitigation described in the Scoping Report would include the wide range of feasible and practical options.

Criteria	Category	Description
	National	Beyond a 10 Km radius of the site
	Regional	Within a 5 Km radius of the centre of the site
Criteria for ranking Spatial impact	Local	Within a 2 Km radius of the the centre of the site
	Site specific	On site or within the boundaries of the property
	Zero	
	High	Natural and/ or social functions and/ or
		processes are severely altered
Criteria for ranking the	Medium	Natural and/ or social functions and/ or
magnitute of impacts		processes are notably altered
	Low	Natural and/ or social functions and/ or
		processes are slightly altered
	Very low	Natural and/ or social functions and/ or
		processes are negligibly altered
	Zero	Natural and/ or social functions and/ or
		processes remain unaltered
	Zero	Zero time
	Short term	Up to 18 months

Table 2 Criteria for assessing impacts

Criteria for ranking the	Medium term	0-5 years (after operation)	
duration of impact	Long term	5-10 years (after operation)	
	Permanent	More than 10 years (after operation)	
	Definite	Estimated greater than 95 % chance of the	
		impact occurring	
	Very likely	Estimated 50 to 95% chance of the impact	
		Occurring	
Probability	Fairly likey	Estimated 5 to 50 % chance of the impact	
		Occurring	
	Unlikely	Estimated less than 5 % chance of the	
		impact occurring	
	Zero	Definitely no chance of occurrence	
	Certain	Wealth of information on and sound	
		understanding of the environmental factors	
		potentially influencing the impact	
	Sure	Reasonable amount of useful information	
Confidence		on and relatively sound understanding of	
		the environmental factors potentially	
		influencing the impact	
	Unsure	Limited useful information on and	
		understanding of the environmental factors	
		potentially influencing this impact	
	Irreversible	The activity will lead to an impact that is	
Reversibility		permanent	
	Reversible	The impact is reversible, within a period of	
		10 years.	

# 5.3 Identified potential impacts and mitigation measures

Mitigation measures should be identified for each impact analyzed in order to lessen and/or avoid unfavorable consequences. These mitigation measures are also included in the Environmental Management Plan (EMP) to guarantee that they are carried out throughout the planned activity's life cycle. The EMP is included in the Scoping Report, and its

implementation becomes a legally binding obligation after the project is approved. Possible impacts of the project are summerised in the Table 3 below based on the information acquired during the field assessment, and their mitigation measures.

Impacts due to the	Measurement	Rating	Mitigation
installation of the			
tank			
	Duration	Permanent	If possible rehabilitate the site
Landscape	Extent	Site specific	after construction
alternation: digging	Magnitude	Low	
and excating	Probability	Fairly likely	
	Reversible	Reversible	
Access roads:	Duration	Permanent	Use existing municipal access
establishment of road	Extent	Site specific	roads
tracks	Magnitude	Low	
	Probability	Very likely	
	Reversible	Reversible	
			If an oil spill occurs, collect the
	Duration	Short-term	contaminated soil, store in drums
	Extent	Local	or appropriate structures and
Oil spills: soil	Magnitude	Low	dispose at approved waste
pollution (oil leakeges	Probability	Definite	disposal site;
from machinery)	Reversible	Reversibility	
			Ensure all vehicles / machinery
			are well service, install drip trays
			and conduct regular leak
			inspection
	Duration	Short-term	
	Extent	Local	Use dust suppression measures to
Pollution: noise and	Magnitude	Medium	mitigate dust impacts
dust (extraction and	Probability	Definite	Provide dust masks and ear muffs
	Reversible	Reversible	to machinery operators

# Table 3 Potential impacts and mitigation measures

transportation of the			
sand and cocrete)			
	Duration	Long and	
Socio-economic		short-term	Employ local labour as far as
environment:	Extent	National &	possible
development and		local	Establish on the job training and
employment	Magnitude	Medium	other capacity development
opportunities	Probability	Definite	training
	Reversible	Reversibility	programs

# 6. Environmental Management Plan

This Environmental Management Plan (EMP) was prepared as part of the Scoping Report for the planned aboveground petrol tank development facility by the proponent as part of the Environmental Assessment. The content has been adapted in accordance with the Environmental Management Act of 2007 (Act No. 7 of 2007) Regulation No. 30 of 2012, listing No. 8(j) (aa) (bb) (cc). The goal is to develop management strategies to address the environmental consequences indicated in the Scoping Report.

The Environmental Management Plan for impacts related with the proposed installation of the aboveground petrol tank is described in this section. Environmental projects must be managed in a methodical, planned, and documented manner, according to the EMP. The Environmental

Management Plan outlined below summaries the organizational structure, planning, and monitoring for environmental preservation at the proposed project site development.

# 6.1 Listed activities

An Environmental Clearance Certificate (ECC) is required for Listed Activities, and an Environmental Impact Assessment (EIA) is also required. The MET: DEA is devoted to promoting environmental management principles as the governmental institution responsible for the management and conservation of its natural resources. The Environmental Protection Agency (EPA) publishes a list of operations that require an EIA, and the proposed fuel tank is one of the specified activities or activities that cannot be carried out without an ECC. The goal of project activities that are described is to guarantee that the environmental implications are thoroughly examined.

The planned fuel storage tank's continuation would result in a number of Listed Activities as defined by the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011). The following is the listed activities induced by the proposed project:

#### Activity:

Activity 9.4 Storage and Handling of Dangerous Good

# **Applicability :**

Storage and handling of dangerous materials in containers with a combined volume of more than 30 cubic meters at any site, including gasoline, diesel, liquid petroleum gas, or paraffin.

# 6.2 Roles and responsibility in EMP implementation

#### 6.2.1 Environmental Management Plan administration

The management and staff, including the construction team, shall be required to familiarize themselves with the content of the document while the project Manager shall be tasked with the overall responsibility for the implementation thereof once the development is operational.

# 6.2.2 Environmental Awareness Training Installation phase

The owner and construction company shall ensure that all his/her staff are aware of the importance and implications of the EMP and the need to commit to the relevant provisions contained in the document.

# **Operational phase**

The operational phase shall require that roles and responsibilities for all employees need to be established while the reasons and importance of mitigation measures shall be clearly explained, and this shall be an ongoing process. The positive socioeconomic and biodiversity impacts involve a number of external stakeholders and these relationships require close and regular interventions. Before commencement of business, the management shall send all its key personnel for training in handling dangerous and hazardous goods.

Roles	Environmental responsibilities
Project Manager	Enforce the EMP implementation to contractors and all project workers.
Environmental Control Officer	<ul> <li>Implement, review and update the EMP.</li> <li>Ensure all reporting and monitoring required under EMP is undertaken, documented and distributed as needed</li> <li>Conducts environmental audit at work site with the support of environmental consultant.</li> <li>Ensure materials being used on site are environmental friendly and safe.</li> </ul>
The Department of Environmental Affairs	<ul> <li>Approve the EMP and any amendments to the EMP.</li> <li>Review and approve environmental reports submitted as part of EMP implementation.</li> </ul>

Table 4 Roles and responsibility in EMP implementation

Environmental Consultant	- Conduct and monitor actions			
	required by the EMP if required			
	- Conducts environmental audit at			
	work site			
	- Ensure materials being used on site			
	are environmental friendly and safe.			
Site/Project Engineers	- Control and monitor actions required			
	by the EMP.			
	- Ensure documented procedures are			
	followed and records kept on site.			
	- Ensure any complaints are passed			
	onto the management within 24 hours			
	of receiving the complaint.			
Labour	- Follow requirements as directed by			
	site engineers.			
	- Report any potential environmental			
	issues to site engineer/project			
	manager, indicating spilt oil, excess			
	waste, excessive dust generation,			
	dirty water running off the site and			
	other possible non-conformances.			
	- Compliance with the environmental			
	specifications and enforce adherence.			
	- Maintain a record of activities			
	relevant to environmental			
	management.			

# 6.3 Scope of the Environmental Management Plan

Namib-Enviro Consultants carried out and prepare the EMP according to a set of guidelines. Because of the importance of involving Interested and Affected Parties (I&APs) in environmental studies, the EMP ensures that I&APs concerns are addressed, as consultations were central to every step, such as MEFT's approval of the clearance process, which included local communities and nearby farm owners.

# 6.3.1 Scoping exercise

The scoping exercise aimed to identify and screen all relevant concerns associated to project development, as well as determine whether any detrimental consequences occurred that could render the proposed project ecologically unacceptable as soon as possible.

#### 6.3.2 Existing environmental conditions

Environmental and socioeconomic data from the surrounding areas were collected, processed, and analyzed to determine the current environmental conditions in the project area. The results of the analysis are reported in the sections below. Secondary data for the paper came from previous biological, zoological, botanical, and socioeconomic research conducted in the area.

# 6.3.3 Analysis of potential environmental impact

An assessment of the proposed project's environmental consequences and benefits in terms of the biophysical and socioeconomic environment, as well as an analysis of the impacts' scope, duration, intensity, and significance, has been carried out.

# 6.3.4 Formulation of possible mitigation measures

Based on the analysis of findings, a number of measures and plans for mitigating the identified possible adverse environmental impacts of the project are proposed. Further, the report

proposes measures and plans for enhancing positive environmental impacts of the project. And wherever possible, the costs and benefits of these environmental measures are quantified.

# 6.4 Stakeholder consultation

The goal of an approach to environmental assessment studies is to ensure broad stakeholder participation and involvement. Because there were no registered stakeholders by AEC, public consultative sessions were not held in the region as part of the transparent consultation process aiming for taking public views into consideration in selecting the EMP. The Proponent owns the land on which the planned project will be carried out.

# 5.5 Stakeholder consultation methodology

The public will be notified via newspaper advertisements and a notice placed at the project location (the proponent's farm). The project will have a 14-day comment period following the publication of the newspaper advertisements.

# 6.Monitoring

Environmental monitoring will involve measurement of relevant parameters, at a level of details accurate enough, to distinguish the anticipated changes. Monitoring aims at determining the effectiveness of actions to improve.

Negative impacts	Mitigation measures	Responsible person	Monitoring	
Construction phase				
Oil spillage	Ensure NO oil spillage	Contractor Supervising and	Inspection/Obs	
Noise	occurs	Environmental	ervation	
Dust	Ensure use of Manual	expert		
Soil	labour and hand tools			
Operation phase				
General maintenance	Oil Spillage	Ensure use of appropriate	Proponent -	
of the fuel storage	Possible asphyxiation of	PPEs for tank cleaners	routine	
tank, regular cleaning	tank cleaners	including oxygen masks.	inspection	
of the tank	Generation of waste	Establish an environmental		
	materials, e.g. paints,	record keeping system.		
	painting accessories			

Table 5 Management strategies to address the environmental impacts of the proposed project

Generation of Solid	If not properly	Ensure solid waste is	Proponent
waste	managed, could create	collected regularly by	1
	hazardous conditions	professional waste	
	for those within the	handlers and disposed of at	
	vicinity of the project	the designated dumping	
	site.	sites.	
Generation of	If not properly	Ensure the sewage waste	Proponent
sewerage, waste water	managed, could	water is collected and	
	compromise sanitary	disposed of into the	
	hygiene of the	properly constructed septic	
	development result in	tanks.	
	closure of the facility		
	Decommission	ning phase	
Site closure and	Oil spillage	Clean and treat all oil	Contractor
demolition of the site	Noise	contaminated areas and	Environmental
office, and all other	Dust	tools, and dispose at an	expert
associated	Solid waste	authorised dumping site.	
infrastructure	Soil destruction	Implement an appropriate	
		re-vegetation programmed	
		to restore the site to its	
		original status.	

#### 7. Public participation

It is a norm that public consultation is required by legislation (EMA No. 7 of 2007) to be included in an EIA process, it is a major element of the EIA. By incorporating Interested and Affected Parties, public consultation ensures sound decision-making. As a result, the Public Participation Process has been constructed to give I&APs the opportunity to learn more about the proposed project, provide input through document/report reviews, and raise any issues of concern during the public consultation process.

Notification of the proposed activities were advertised in two local newspapers to consult the public as presented in Appendix, to identify and contact as many potential I&APs as possible. In addition, notices were also prepared to be displayed at the proposed project site. This allowed the community to participate in the process by submitting comments and expressing their worries about the project's operations as well as any environmental issues that the project may cause. No registered Interested and Affected Parties recorded and thus no comments or concerns were raised.

# 8. Conclusion

The EIA procedure for the proposed installation of the above ground petrol tank development was carried out in accordance with the EIA Regulations published in Government Notice No. 30, in accordance with Section 56 of the Namibia Environmental Management Act, 2007. (Act No. 7 of 2007).

As a result, the public consultation process has been fair, with every attempt taken to include individuals from all stakeholders. Additionally, the proposed project plan includes mitigating measures to ensure that all applicable laws and regulations are followed. Businesses are regarded advantageous and vital in relation to the proposed mitigation measures that will be implemented throughout the construction phase, the development's contribution to society, and the fact that the project is economically and environmentally sound.

Aboveground fuel tanks are widespread in commercial and farm operations. When it comes to fuel handling, they are the safest. With a capacity of 23 m<sup>3</sup>, the suggested tank is quite tiny. The EMP adequately addresses the issues of oil spills, fire risk, tank leakage, and land/water pollution. With the adoption of this EMP, the proposed fuel tank's functioning will no longer constitute an environmental danger. In addition, the detected possible negative consequences linked with the proposed project and related activities were deemed to be of medium magnitude. This findings suggest that the project be permitted and an environmental clearance certificate be granted to the approving authority.

# References

Herbarium of Namibia (WIND). (2015). National Herbarium of Namibia (WIND), National Botanical Research Institute, MAWF. BRAHMS Database. Windhoek, Namibia.

Mendelsohn, J., Jarvis, A., Roberts, C. & Robertson, T. (2002). Atlas of Namibia. David Philips Publisher. Cape Town.

Mendelsohn, J., & el Obeid, S. (2002). The communal lands in eastern Namibia. Windhoek: Research and Information Services of Namibia (RAISON).

Mtuleni, V. (2019). Environmental Scoping and Management Plan report for the proposed fuel station and associated facilities at Otjinene village omaheke region, Namibia. Windhoek: Enviro-Leap Consulting cc.

NDC. (2001). Regional development plans for Otjozondjupa and Omaheke. Reports for National Planning Commission nd Regional Governments of Otjozondjupa and Omaheke.

Appendices

# Appendix

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CONFIDENTE lifting the lid Page. 16 6 May - 12 May 2022 Classifieds Contact: Mandy • T: 061 24 6136 • C: 081 895 8296 • E: mandy@confidentenamibia.com  $\mathbf{W}_{ ext{inter Celebration Combo}}$  Packs ONDANGWA CAR HIRE Namib-Enviro Your self-drive dream sharts right here **B U BUTCHERY** ENVIRONMETAL IMPACT ASSESMENT FOR EXPLORATIONS ACTIVITIES BY KMZ INTERPRICES CC ON EXCLUSIVE PROSPECTIVE LICENCE (EPL 8496). Affordable Quality Meat GOAT COMBO LAMB COMBO Advanced environmental agency co suitant here Advanced environmental agency consultant networking two notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment [EIA] for the process mining activities on the above mentioned EPL NO:8496 1. Goat stew - 1 kg 1. Lamb stew - 1 kg 5.90 1 2. Boerewors - 1 kg 2. Boerewors - 1 kg 3. Mince - 1 kg 4. Soup Bones - 700 g 3. Mince - 1 kg 4. Soup Bones - 700 g PROPONENT KMZ INTERPRICES CC DESCRIPTION OF ACTIVITY: EXPLORATION ACTIVITIES ON. DENMENSION STONES. PRECIOUS METAL 16,4604 Ha area APROXMATELY. WDH N\$ 300 only! N\$ 300 only ! LOCATION OF THE ML AREA: KHORIKA KUNENE REGION SKELETON COAST. Interested and Affected parties (18 AP) are invited to register with advanced environmental agency consulta for the proposed mining activities within 14 days of the adventisement. Registration can be done by requesting of the Backgroo information document provided in the email below. Any pergene harine ence done by requesting of the Background persons having any objection to the email below. Any persons having any objection to the email below by 26 APRII: 2022 - DMAY 2022 Email: infb.advancemvironment()gmail.com Cett: 087-4807644 www.ondangwa-carhire.com DRESSED-IN-TIME cialty ENVIRONMETAL IMPACT ASSESMENT FOR EXPLORATIONS ACTIVITIES GRAVITY MINING CC ON EXCLUSIVE PROSPECTIVE LICENCE (EPL 8375). WINTER SPECI/ About Us Beef I b & Mutton Advanced environmental agency consultant herewith give notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment (EA) for the process mining activities on the above mentioned EPL NO. 8375 **BU** But ery is an estab Boerewors siness that sell a wide range of a oducts from beef, lamb, goat, po ne at affordable prices in an czondjupa and Khomas Reg Goat . and more PROPONENT: GRAVITY MINING CC DESCRIPTION OF ACTIVITY: EXPLORATION ACTIVITIES ON DENMENSION STONES, PRECIOUS METAL 16,4604 Ha area APPROXMETLY LOCATION OF THE ML AREA: KHORIXA KUNENE Customer Care 081 60 67 68 6 REGION SKELETON COAST. sted and Affected parties (I & AP) are in Interested and Attected parties (1 & AP) are invited to register with advanced environmental agency consultants for the proposed mining activities within 14 days of the advertisement. NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT AND REZONING A DENSITY OF 1/300 TO BUSINESS WITH A BULK OF 1 advertisement. Registration can be done by requesting of the Background information document provided in the email below Any persons having any objection to the email below by 26 APRIL 2022-10 MAY 2022 \$110 FOR 1 Notice is hereby given to all Interested and Affected Parties (I & APs) that an application for the Environmental Clearance Certificate will be submitted to the Environmental Commissioner in terms of the Environmental Management Act (Act No. 7 of 2007) for the following activities. viroment@gmail.com Email: info.advanc Cell: 081-4801644 +264 81 6559 225 ENVIRONMETAL IMPACT ASSESMENT FOR EXPLORATIONS ACTIVITIES BY KMB TRADING CC ON EXCLUSIVE PROSPECTIVE LICENCE (EPL 8205). Title: Rezoning of Erf 3156, Rundu Extension 7 from single residential with a density of 1/300 bulk of 1. PUBLIC NOTICE to business with a Advanced environmental agency cc consultant herewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment (EA) for the process minimg activities on the above mentioned EPL. NO. 8205 ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION Proponent: Mrs. Elizabeth Shivute ACTIVITIES (EPL No. 6813) EAP: Green Gain Environmental Consultants cc PROPONENT: KMB TRADING CC Notice is hereby placed to inform all DESCRIPTION OF ACTIVITY: EXPLORATION ACTIVITIES ON , DENMENSION STONES, PRECIOUS METAL 16,4604 potentially Interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate All I&APs are hereby invited to request background information Documents Ha area APPROXMATELY LOCATION OF THE ML AREA: KHORIXA, KUNENE (BID) and send their comments to elatogree June 2022. ain.com.na on or before 3 will be made to the Environmental REGION SKELETON COAST. REZONING NOTICE: Notice is hereby given in terms of Regulation 10(1) of the Urban and Regional Planning Act, (Act No. 5 of 2018) that Hilaria Kevanhu under the supervision of Geraldine van Rooi, intends to apply on behalf of the registered owner of Erf 3156, Rundu Extension 7 for the: • Rezoning of Erf 3156, Extension 7, Rundu from seidential with a density of 11000 to while a the supervision of 1000 to Notice and the supervision of the s Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and it's Regulations of 2012, in respect of Interested and Affected parties (I & AP) are invited to register with advanced environmental agency consultar for the proposed mining activities within 14 days of the advantioners. for the proposed mining activities within 14 days of the adventisement. Registration can be done by requesting of the Backgrou information document provided in the email below. Any persons having any objection to the email below by 26 APRIL 2022-40 MAY 2022 Email: infl advancement/soment@gmail.com Ceft: 067-4071644 proposed exploration activities for base metals mineral deposits: single business with Project Location: Khomas / Hardap Regions – Windhoek/Rehoboth Area Proponent: A E Ishitile Infrastructures CC residential with a density of 1/300 to a bulk of 1 Consent to construct residential units ENVIRONMETAL IMPACT ASSESMENT FOR FILLING STATIONS AT OMINGONDO IN ROAD NO D 3089 FROM OTJINENE GAM Consent to commence with the Proposed
Development whilst rezoning is ongoing. All Interested and Affected Parties The rezoning of Erf 3156, Extension 7, Rundu would increase the development potential of the erf and ensure that the mono-functionality of the surrounding neighbourhood is countered. (I&APs) are invited to register and Advanced environmental agency cc consultant herewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment (EIA) for the filing stations. submit their comments (including request for Background Information Document) before 16th of May 2022, to: Take note that any person objecting to the proposed rezoning as set out above may lodge such objection together with the grounds thereof with the Chief Executive Officer, Rundu Town Council, Private Bag 2128, PROPONENT: KMB TRADING CC Ms. Anna Neputa DESCRIPTION OF ACTIVITY: FILLING STATIONS AT OMINGONDO IN ROAD NO D 3089 FROM OTJINENE GAM Environmental Specialist (EAP) SS Consultants CC Cell: 081 430 4609 Rundu and/or the applicant in writing within 14 working days of the publication of this notice. The last date for comments/ objections is thus LOCATION OF THE ML AREA: OMINGONDO, OTJINENE OMAHEKE REGION. 31 May 2022. Interested and Affected parties (1 & AP) are invited to register with advanced environmental agency consultants for the proposed mining activities within 14 days of the advertisement. Email: ad ultants.co Applica Hilaria Kevanhu P O Box 793 advertisement. Registration can be done by requesting of the Backgroun information document provided in the email below Any persons having any objection to the email below by 26 APRIJ. 2022-10 MAY 2022 Email: into advanceenrykoment@gmail.com Cell: 081-4801644 Swakopmund Mobile: +264 81 3236024 SS CONSULTANTS E-mail: @htskevanhu@gmail.com



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6 May - 12 May 2022



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#### NEWS PAPER : REPUBLIKAIN AND THE SUN.

ENVIRONMETAL IMPACT AS-SESMENT FOR FILLING STA-TIONS AT OMINGONDO IN ROAD NO D 3089 FROM OTJI-NENE GAM Advanced environmental agency cc consultant he-

rewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment (EIA) for the filling stations.

PROPONENT: KMB TRADING CC

DESCRIPTION OF ACTIVITY: FILLING STATIONS AT OMIN-GONDO IN ROAD NO D 3089 FROM OTJINENE GAM

LOCATION OF THE ML AREA: OMIINGONDO, OTJINENE OMAHEKE REGION.

Interested and Affected parties (I & AP) are invited to register with advanced environmental agency consultants for the proposed mining activities within 14days of the advertisement. Registration can be done by requesting of the Background information document provided in the email below. Any persons having any objection to the email below by: 26 APRIL 2022-10 MAY 2022 Email:info.advanceenviroment@gmail.com Cell: 081-4801644.

DM0202200402293

Appendix C

# NEWS PAPER: REPUBLIKAIN AND SUN

# ENVIRONMETAL IMPACT AS-SESMENT FOR FILLING STA-TIONS AT OMINGONDO IN ROAD NO D 3089 FROM OTJI-

**NENE GAM** Advanced environmental agency cc consultant herewith gives notice in terms of the Environmental Management Act, 7 of 2007 and Regulation 21 of the Environmental impact assessment (EIA) for the filling stations.

PROPONENT: KMB TRADING CC

DESCRIPTION OF ACTIVITY: FILLING STATIONS AT OMIN-GONDO IN ROAD NO D 3089 FROM OTJINENE GAM

LOCATION OF THE ML AREA: OMIINGONDO, OTJINENE OMAHEKE REGION.

Interested and Affected parties (I & AP) are invited to register with advanced environmental agency consultants for the proposed mining activities within 14days of the advertisement. Registration can be done by requesting of the Background information document provided in the email below. Any persons having any objection to the email below by: 26 APRIL 2022-10 MAY 2022 Email:info.advanceenviroment@ gmail.com Cell: 081-4801644.

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