

**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED
INSTALLATION OF AN ABOVE GROUND PETROL TANK IN OMAIHI,
OKAKARARA CONSTITUENCY, OTOZONDJUPA REGION**



MAY 2022

PREPARED FOR FIVE OCTOBER TRADING CC

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NAMIB – ENVIRO CONSULTANTS

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EXECUTIVE SUMMARY

The proponent proposes to install an aboveground petroleum tank in Omaihi village 39 Km from Okondjatu to Okakarara, Otjozondjupa region. The proposed development will result in the installation of a tank with a dispenser for quick vehicle filling. The proposed above ground petrol tank installation will hold 23000 litre with one dispenser. On a plot with a total area of approximately 1400 m².

The proponent realised the need of fuel in their remote area, and thus proposed the installation of an above ground tank at that isolated site. The proposed project will not only benefits the automobile owners, and farmers in the surrounding areas, but it will as well open up the interior areas, necessitating/accelerating development in the area, such as the transportation services and accompanying infrastructure such as fuel stations, car wash, grocery shops and garages.

This EIA is in accordance with the regulations stipulated in the Environmental Management Act (EMA) No.7 of 2007 and its Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012), as the fuel station is one of the activities that cannot be undertaken without an environmental clearance certificate (ECC). This EIA is based on the project's submission to the EMA No. 7 of 2007. The building and subsequent operations of a petrol tank, as well as related activities, are the subject of the study project report. To comply with the EMA, an EIA study must be completed, and an EIA report (containing an Environmental Management Plan) must be created and submitted to the Ministry of Environment, Forestry and Tourism (MEFT) of Environmental Affairs (DEA) for consideration of an ECC.

Brief project description

The petroleum tank outlets/facilities will provide the following items on site: a small grocery store and a car wash. The following service infrastructures will be created for the filling station's operation:

- ✓ An above ground tank structure
- ✓ Firefighting equipment and
- ✓ Ablution facilities

Public participation

This project's EIA was conducted in a holistic manner, adhering to all standards and regulations set forth in the Namibian Environmental Impact Assessment Regulations of 2012.

Environmental Management Act 7 of 2007 was followed during the EIA procedure. Below is a summary of the methods used.

Scoping process

The scoping process was used to identify major issues that would be addressed in this study, as well as to determine which stakeholders should be consulted.

Stakeholder consultation

The public was notified of the EIA activities via various platforms, and local communities were consulted for their perspectives on matters connected to the project's possible ecological and socio-economic consequences.

Major Potential Environmental impacts identified

Table 1 Key identified potential environmental impacts

Positive impacts	Negative impacts
In the short term, the project's positive impacts will include an increase in casual employment and artisans;	Wastewater/effluent run-off pollutes soil and water resources; Health and Safety risks and hazards, such as fire outbreaks.
In the long term, the project's benefits will include an increase in permanent jobs and income opportunities, better site use, infrastructure improvements, and increased revenue for the constituency and national governments, among other things.	Pollution will harm the environment; noise pollution and air pollution (due to construction dust) and the possibility for project delivery trucks to emit pollutants.

The potential negative implications have been examined, and mitigation methods have been presented in the sections of this report that pertain to them.

Alternatives considered

According to the Environmental Management Act (EMA) and EIA regulations, alternative sites, alternative projects, 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.

Conclusion

The project's concept is regarded helpful and important in terms of the project mitigation and environmental management methods that will be adopted during the construction and operation phases; and the developments' input to the proponent and the general public. Nonetheless, major attention should be directed toward minimizing the occurrence of consequences that would impair the environment as a whole. This can be mitigated, however, by ensuring that the necessary Environmental Management and Monitoring Plans are closely monitored and implemented.

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1. Introduction

1.1 Project background

The proponent proposes to install an aboveground petroleum tank in Omaihi village 39 Km from Okondjatu to Okakarara, Otjozondjupa 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 with a total area of approximately 1400 m².

The proponent realised the need of fuel in their remote area, and thus proposed the installation of an above ground tank at that isolated site. The proposed project will not only benefits the automobile owners, and farmers in the surrounding areas, but it will as well open up the interior areas, necessitating/accelerating development in the area, such as the transportation services and accompanying infrastructure such as fuel stations, car wash, grocery shops and garages.

This EIA is in accordance with the regulations stipulated in the Environmental Management Act (EMA) No.7F of 2007 and its Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012), as the installation of an above ground is one of the activities that cannot be undertaken without an environmental clearance certificate (ECC). This EIA is based on the project's submission to the EMA No. 7 of 2007.

The building and subsequent operations of a diesel or petrol, as well as related activities, are the subject of the study project report. To comply with the EMA, an EIA study must be completed, and an EIA report (containing an Environmental Management Plan) must be created and submitted to the Ministry of Environment, Forestry and Tourism (MEFT) of Environmental Affairs (DEA) for consideration of an ECC.

Namib-Enviro Consultants has been appointed by Five October Trading cc to conduct an Environmental Impact Assessment (EIA), prepare an environmental assessment report, and develop an Environmental Management Plan (EMP) as required by the EMA No.7 of 2007 and the Environmental Impact Assessment Regulations. As an appendix, the curriculum vitae (CVs) of MEC's responsible environmental assessment practitioners (EAPs) are provided.

1.2 Purpose of this EIA study

The purpose of this EIA comprehensive report is to look at both the positive and negative effects that the project will have on the physical and socioeconomic environment. Early detection of potential impacts will help to ensure environmental sustainability since manmade

elements will blend in with the natural environment, generating harmony. This analysis is a valuable planning tool for the project proponent since it will identify any significant project impacts and clearly describe mitigation actions to minimize or mitigate negative consequences.

As a result, this EIA Report has been prepared in accordance with Namibia's 1995 Environmental Assessment Policy, the Environmental Management Act No. 7 of 2007 (Section 27(2)(a), Government Notice No. 29 of 2012 for Listed Activities and EIA Regulations, and the Petroleum Products and Energy Amendment Act, 1994 (Act 29 of 1994).

1.3 Proposed tank design



Figure 1 Sample of an aboveground fuel tank design similar to the proposed project

2. Description of existing project activities

2.1 Project location

The proposed project will be located in Omaihi village 30 Km from Okakarara, in a communal land on a farm owned by the proponent, Okakarara constituency, Otjozondjupa region as indicated in figure 1, geographical coordinates of -21.6516° , 17.7686° . The project site is accessed from the C22 Okakarara tarred road which links to the D3801 gravel road. The development will occupy an area of roughly 1400 m^2 .

Omaihi is encompassed by a communal area with numerous villages. In each village, there are numerous household in the vicinity of the project area. The majority of residents in the Omaihi area are communal farmers who raise cattle, goats, and sheep, and there is a few retail outlets.

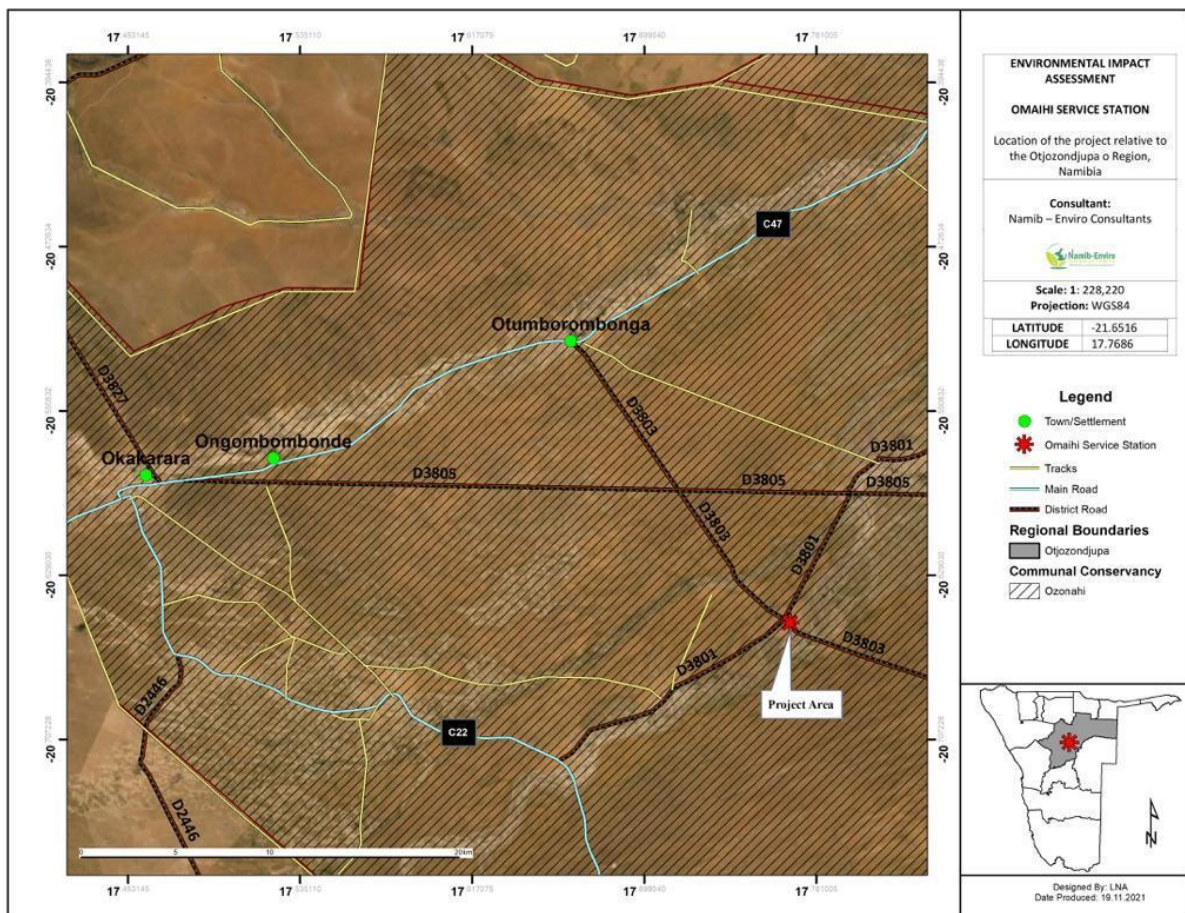


Figure 2 Locality map for the proposed site

2.2 Project description

The proponent's goal is to provide fuel retail service to Namibian distant villages, including the distribution of fuel and related products. The company's business model is around the sourcing and distribution of high-quality, low-cost petroleum products. The company

recognizes the main pillars of sustainability and strives to conduct all of its operations in a socially, environmentally, and economically responsible manner. These are attained via strict adherence to guiding concepts and laws.

The proposed project is intended to reach out to a wide range of people from many walks of life, and to alleviate the local motorist's and farmer's fuel deficit. The proposed installation project will also provide a much-needed contemporary 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.

2.2 Environmental protection measures

This study acts as the Environmental Impact Assessment that is presented to Ministry of Environment, Forestry and Tourism 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 erected. Employees will be safe, and public health will be protected. These will include both employee and third-party insurance coverage. Before any work can begin, the site plan must be approved.

2.3 Proposed project activities

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

- ✓ The fencing of the backside of the facility
- ✓ Water and power supply (connecting to an existing water pipe line, and or installation of diesel generator)
- ✓ The related fuel and value-added infrastructure to be built (Tuck shop, Car Wash, and Ablution Facilities)

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:

- ✓ 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.
- ✓ Installation of the electrical supply that goes with it.
- ✓ Construction of related structures and infrastructure.

Operational Phase:

- ✓ Road transport tankers will be used to fill storage tanks.
- ✓ 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 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 on-site 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 by hand.

The project's actual operation will entail vehicle refuelling, as well as oil level checking and other complimentary services for clients.

The following are the most significant negative consequences of the development:

- ✓ Accidental fuel and oil spillages
- ✓ Infrastructural development of the growth point
- ✓ Employment
- ✓ Fire outbreaks
- ✓ Dust during the digging, excavation and crushing
- ✓ There is potential for soil erosion as the soil is disturbed during excavation and scrapping of overburden.
- ✓ Crimes like robbery
- ✓ Improved standard of living for employed people
- ✓ Business accumulation
- ✓ Easy access to fuel to locals and travellers

3. Legal framework

Identifying and assessing the administrative, policy, and legislative context concerning project activities is an important part of the EIA. This is important that the Proponent is aware of the requirements for constructing and managing an installed petrol tank. 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.

As a result of the same need, the project proponent will ensure environmental compliance with resource management and resource sustainability. The project's actions will focus on reducing Green House Gases emissions and preventing excessive land usage, which can degrade the environment and jeopardize livelihoods. A sound legislative framework guides the development of sustainability. This section examines applicable legal instruments as well as their related provisions. A summary of how these provisions apply to this project in particular is presented in table 2.

Table 2 Applicable environmental legislations and provisions

Legislation/policy	Provision
The Constitution of the Republic of Namibia (1990)	The articles 91(c) and 95(i) commits the state to actively promote and sustain environmental welfare of the nation by formulating and institutionalising policies to accomplish the Sustainable objectives which include: <ul style="list-style-type: none">- Guarding against overutilization of biological natural resources,- Limiting over-exploitation of non-renewable resources,- Ensuring ecosystem functionality,- Maintain biological diversity.
Environmental Assessment Policy of Namibia 1994	The Environmental Assessment Policy of Namibia states Schedule 1: Screening list of policies/ plans/ programmes/ projects subject to environment must be accompanied by an EIA. "The sand/gravel mining and its related activities" is

	among the list. The responsible Authority enforcing the law is the Ministry of Environment, Forestry and Tourism (MEFT) Directorate of Environment.
Environmental Management Act No. 07 of 2007	<ul style="list-style-type: none"> - Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). - Requires for adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)). - Requires for adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)).
EIA Regulations GN 57/2007 (GG 3812)	<p>Details requirements for public consultation within a given environmental assessment process (GN No 30 S21).</p> <p>Details the requirements for what should be included in a Scoping Report (GN No 30 S8) an EIA report (GN No 30 S15).</p>
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that “No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area
South African National Standard (SANS) 10089-3 (2008)	The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations.
Communal Land Reform Act 5 of 2002	To provide for the allocation of rights in respect of communal land; to establish Communal Land Boards; to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land; and to make provision for incidental matters

The Water Act 54 of 1956	The Act was formulated to consolidate and amend the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respects, of the use of sea water for certain purposes; for the control of certain activities on or in water in certain areas.
The Water Resources Management Act No. 11 of 2013	Equitable improvement of water and sanitation services should be achieved by the combined efforts of the government and the beneficiaries, based on community involvement and participation, the acceptance of a mutual responsibility and by outsourcing services where necessary and appropriate, under the control and supervision of government.
Pollution Control and Waste Management Bill	The bill aims to “prevent and regulate the discharge of pollutants to the air, water and land” Of particular reference to the Project is: Section 21 “(1) Subject to sub-section (4) and section 22, no person shall cause or permit the discharge of pollutants or waste into any water or watercourse.” Section 55 “(1) No person may produce, collect, transport, sort, recover, treat, store, dispose of or otherwise manage waste in a manner that results in or creates a significant risk of harm to human health or the environment.”
National Solid Waste Management Strategy	The Strategy ensures that the future directions, regulations, funding and action plans to improve solid waste management are properly co-ordinated and consistent with national policy, and to facilitate co-operation between stakeholders
Public and Environmental Health Act 1 of 2015.	To provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters.
Labour Act 11 of 2007.	Empowers the minister responsible for labour to publish regulations pertaining to health and safety of labourers (S135). Details requirements regarding minimum wage and working conditions (S39-47).

Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers
Convention on Biological Diversity	Namibia is obliged under international law to conserve its biodiversity.
Public Health Act 36 of 1919	Section 119 states that “no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”
Road Traffic and Transport Act, No. 22 of 1999	The Act provides for the establishment of the Transportation Commission of Namibia; for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, the control and regulation of road transport across Namibia's borders; and for matters incidental thereto.
Soil Conservation Act 76 of 1969	Provision for combating and for the prevention of soil erosion, it promotes the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic of Namibia

4. Description of the current environment

4.1 Introduction

This section gives a summary of the present biophysical environment by analysing background information on the natural and socio-economic environment. As part of the scoping step, desktop studies on the national database are conducted to obtain information on the current status of the receiving environment. This establishes a baseline against which any changes brought about by the planned project can be measured.

4.2 Climate conditions

4.2.1 Temperature

According to Mendelsohn, Jarvis, Roberts, & Robertson (2009), the average maximum temperature is around 30-32°C, while the average lowest temperature is around 4–6°C.

4.2.2 Rainfall

According to Mendelsohn & el Obeid (2002), most rain is in summer, especially in January and February, average falls per year vary from about 350 to 450 mm, but totals also vary greatly from year to year. On a regional scale, the greater area is characterized by irregular and variable rainfall seasons, and droughts are prevalent.

4.3 Geology and soils

Surface cover in the project region is made up of Kalahari Group geological deposits, which include sands, gravel, and/or calcrete. The terrain is relatively flat in this area. The project area is made up of a variety of soil types, with Ferralic Arenosols being the most common (Mendelsohn, Jarvis, Roberts, & Robertson, 2009). This sort of soil has a lot of iron and aluminium oxides in it. Aerosols are made out of sand that has been blown by the wind. Because of the sandy texture, water drains fast through the soil, leaving little moisture and nutrients for plant growth. The loose structure of the soil implies that there is little run-off and water erosion, but it is vulnerable to wind erosion.

4.4 Hydrology

There are no permanent rivers in the region. Dry omuramba drainage lines may carry water for very short periods after heavy rain. Almost all water for people and livestock comes from underground, pumped from boreholes within the region or piped in from groundwater reserves at Berg Aukas and Kombot. In addition, yields from boreholes are low in most areas (Mendelson & el Obeid, 2002).

4.5 Flora and fauna

The farm is located in the Tree-and-Shrub Savanna biome, with Northern-Kalahari and Thorn bush shrub-land vegetation types (Mendelsohn J. , Jarvis, Roberts, & Robertson, 2000). *Terminalia sericea*, *Burkea africana*, *Combretum collinum*, *Combretum psidioides*, and *Peltophorum africanum* dominate the flora on the plateau's top. *Acacia erioloba*, *Acacia erubescens*, and *Acacia tortilis* are among the most common acacia species in the area (RES, 2022). Previously, the farms were used for cattle ranching; however, there are now a few large mammals on the property, including kudu, gemsbok, and some giraffe. On the farm and in the surrounding area, smaller mammals such as steenbok and warthog, ground squirrel, porcupine, and wild dogs can be found. Crawling beneath farm fences, such animals can readily cross them.



Figure 3 Vegetation type at the proposed site

4.5 Socio-economic environment

Cattle farming is the major source of livelihoods, and there are well-established farmers associations and community-based water point associations that collaborate with the government ministries and NGOs. The main industry that employed Otjozondjupa region's population are as follow: Agriculture, Forestry and Fishing (30.9%), followed by Public Administration and Defence along with Compulsory Security (12.2%). At constituency level, the labour force participation rate for females is the lowest in Okakarara (60.1%) (NSA, 2012).

4 Public consultation

The Environmental Assessment process includes a significant amount of public consultation. Section 21 of the Regulations lays out the stages that must be followed throughout a public consultation process, and these have been utilized to guide ours. The public was informed of the EIA activities through several channels, and the identified interested and affected parties (I&APs) were asked for their thoughts on problems connected to the project's possible ecological and social economic implications. There was no issue raised by I&APs.

Notification of the proposed activities were advertised in the two widely common newspaper to consult the public as presented in Appendix, to identify and contact as many potential I&APs as possible. In the impacted community, notices were displayed at the local shebeen/cucashops (attached to the appendices). 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.

6. Environmental impact assessment

6.1 Overview

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.

6.2 Impact assessment methodology

Positive or negative effects can occur, and they might be direct or indirect. Each consequence is categorized as important, minor, or inconsequential, temporary or permanent, long-term or short-term, localized or widespread, reversible or irreversible, and temporary or permanent. Some effect mitigation has already been addressed as part of the proactive design, while other mitigations can only be ensured by active, responsible management, aided by adherence to the project Environmental Management Plan's principles.

Table 3 Key used to determine the significance of impacts and their definitions

<i>Key</i>	<i>Type of impact</i>	<i>key</i>	<i>Type of impact</i>
++	Major positive impact	+	Minor positive impact
--	Major negative impact	-	Minor negative impact
0	Negligible/ zero impact	NC	No change
<i>Sp</i>	Specific/ localized	W	Widespread
<i>R</i>	Reversible	Ir	Irreversible
<i>Sh</i>	Short term	L	Long term
<i>T</i>	Temporary	P	Permanent

Potential environmental implications of the project are shown below based on information acquired during the field survey.

Table 4 Anticipated environmental impacts

Impacts due to the implementation of the project	Construction	Operation	Remarks
Change in hydrology	+	+	There will be negative impacts on the hydrogeology of the area due to excavation processes during the construction phase of the project. In order to mitigate this, water conservation measures will be required. There will be an improvement of drainage in project area during the operational phase.
Pollution: Air/dust Noise	-T Ir - T Ir	-/0 -	During construction, dust and exhaust emissions from involved machinery will affect air quality in the area. Construction activities, hooting of the involved vehicles will generate noise and vibration which may have negative but temporally effects to the immediate neighbourhoods. Sound pollution control measures should be applied/ adapted.
Site drainage	-/T	+	There will be accumulation of waste water in pits and holes created after the tank installations. Due consideration should be taken on the surface drainage systems of the entire project and roof catchments. After construction, the drainage at the site will be greatly improved by the implementation of a good drainage system.
Soil erosion	-T R	0	Due to digging and excavation works, the soil structure will be tampered with. This will make the soil loose and vulnerable to soil erosion. Incorporating appropriate soil conservation measures and proper drainage

			<p>facilities during construction would mitigate the impacts.</p> <p>The project site will be fortified with a concrete surface that will protect the bare soil underneath from soil erosion.</p>
Water resources	-Sh	+	<p>The site will get water from water vendors since the town does not have piped water.</p> <p>Water requirement during the initial Construction phase will be met by getting it from water.</p>
Vegetation/Flora	-L Sp Ir	+	<p>The site have a sparse vegetation due to de-bushing to prevent bush encroachment.</p> <p>Landscaping will be done within the site to improve site appearance.</p> <p>During operation, any impact on vegetation/flora will be negligible.</p>
Health and safety	-T Ir	NC	<p>During construction increased dust, noise and air pollution levels could impact on health and safety, particularly in the direct impact zone.</p> <p>During the operation of the project health and safety conditions will be linked more on handling of petroleum products.</p>
Disturbance of the public	-T Ir Sp	0	<p>Disturbance to the surrounding community would occur due to noise and dust during construction and traffic movement.</p> <p>After construction, noise levels compared to the current situation will be minor.</p>
Construction materials	-	0	<p>Building stones will be required for the construction of the project. Other materials will include steel, concrete etc. all these should be sourced from credible commercial</p>

			suppliers who are sensitive to the general environment. Undesirable, hazardous or unauthorized materials should not be used.
Construction waste	-Sh Sp	0	Construction waste will be minimal. Proper disposal of waste generated is necessary; the waste should be disposed into approved dumpsites, by licensed waste handlers.
Clean on completion	-Sp	0	The contractor should ensure that when works are completed, the site is left clean and tidy
Positive impacts	++ T	++ L	Construction activities will create jobs for skilled and non-skilled workers. Job opportunities for skilled and nonskilled personnel during operation phase of the station.

6.2 Direct and indirect effects

Employment and income

The facility will create employment opportunities both during construction and operation phases, thus generating wealth and livelihoods. Besides direct employment, other forms of employment are likely to result from the multiplier effects, such as increased urbanization, industrialization and local markets for providing goods and services during both the implementation and operational phases.

6.3 Cumulative and Irreversible effects

Impacts of construction activities

During the construction phase, sources of negative environmental impacts will emanate from the site preparation activities including excavation of soils, and other geological formations, levelling of landscape and the subsequent construction activities.

The biophysical environment will be negatively impacted by the actions listed above in many ways. The ensuing disturbance of the exposed topsoil, which could lead to soil erosion and siltation, will have immediate detrimental consequences. The combined effect of site preparation and construction activities on the site has the potential to cause soil erosion. Continued soil loss may occur as a result of development on the altered site, particularly during the construction period when the earth is exposed. Rainwater washing away soil can have serious ecological repercussions. At the location, however, this is not expected. If proper building processes are not followed, there may be negative repercussions linked to visual intrusion, pollution, and negative socio-economic implications (including safety and health dangers), among other negative aspects.

6.4 Identified potential impacts and mitigation measures

This section covers the following issues: soil degradation, air quality, noise, oil wastes, water resources, solid and liquid waste management, drainage, terrestrial ecology, visual and landscape, public comfort, Occupational Health and Safety, and energy during the implementation/construction phase, operation phase, and decommissioning phase. The following Table 5 indicates some of the significant issues that were highlighted during the scoping exercise.

Table 5 Potential issues and their mitigation measures

Impacts	Mitigation measures
Noise and vibration	<ul style="list-style-type: none"> - Construction work should be carried out during the specified time i.e. from 07:30 hrs. to 1700hrs; noise generated during the day is not quite disturbing as compared to it being generated at night hours - Construction vehicles’ drivers and machinery operators to switch of engines of vehicles when not in use. - Workers should be provided with relevant personal protective equipment (PPE)/materials such as earmuffs and earplugs; when operating noisy machinery and when in noisy environment. These provide a physical barrier that reduces inner ear noise levels and prevent hearing loss from occurring

	<ul style="list-style-type: none"> - Suppressors or silencers on equipment or noise shields; for instance, corrugated iron sheet structures. - Machineries should be maintained regularly to reduce noise resulting from friction. - Manual labour is recommended in the construction phase, to reduce the noise by construction machinery.
Soil erosion	<ul style="list-style-type: none"> - Provision of soil conservation structures on erosion prone areas to control occurrence of soil movement. - Avoid unnecessary movement of soil materials from the site. - Good management of the runoff/storm water to reduce its impact on loose soil - Control construction activities especially during rainy/wet conditions - Landscaping: Re-surface open areas on completion of the project and introduce appropriate vegetation where applicable. - Provide appropriate drainage systems to manage surface runoff.
Air quality	<ul style="list-style-type: none"> - Provide appropriate Personal Protective Equipment (PPEs) such as nose masks to the affected workers on site during construction phase - Regular and prompt maintenance of construction machinery and equipment. This will minimize generation of noxious gases and other suspended particulate matter - Control of areas generating dust particles. Such areas should be regularly cleaned or sprinkled with water to reduce dust. The areas can be enclosed to mitigate effects of wind
Oil Leaks and Spills	<ul style="list-style-type: none"> - All construction machinery should be keenly observed not to leak oils on the ground. This can be done through regular maintenance of the machinery. - Any maintenance work should be carried out in a designated area and where oil spills are completely restrained from reaching the ground. Such areas should be

	<p>cemented and enclosed to avoid storm water from carrying away oil into the soil.</p> <ul style="list-style-type: none"> - Car wash areas and other places handling oil activities within the site should be well managed and the drains from these areas controlled. Oil interceptors should be installed along the drainage channels leading from such areas. - Develop a spill prevention and control plan to counter and manage emergencies that may occur/arise in the event of accidental spills. - Underground Storage Tanks (USTs) whether constructed from steel or fiberglass reinforced plastic, should be designed and built according to recognized industry standards.
Lead and Sulphur	<ul style="list-style-type: none"> - All fuel should be sourced from trusted sources that have employed the necessary steps to eliminate lead and reduce Sulphur content. - Selling of unleaded petrol. - Selling of 0.05% Sulphur diesel.
Solid waste	<ul style="list-style-type: none"> - The contractor or proponent should work hand in hand with private refuse handlers, the town council and the ministry of environment to facilitate sound waste handling and disposal from site. - All solid wastes should be taken for disposal to the approved dumpsites and by licensed waste handlers. - The wastes should be properly segregated and separated to encourage recycling of some useful waste materials i.e. some demolished and excavated materials will be used as backfills. - Proper dustbins should be provided.
Ecological impacts	<ul style="list-style-type: none"> - Landscaping: Plant vegetation in all practical open areas on project completion. - Manage the introduced vegetation on completion of the development to restore or improve the site.

	<ul style="list-style-type: none"> - A first aid kit should be provided within the site and should be fully equipped (as per Rule 2 of the First Aid Rules, 1977) at all times and managed by qualified and trained first aider(s). - The proponent should initiate and develop effective Emergency Response Plans-ERPs to cater for various eventualities such as fire outbreaks, oil spills and other incidences that are likely to occur.
Security	<ul style="list-style-type: none"> - Security should be beefed-up and movement within the site should be controlled. - Provide lighting systems that illuminate the area well. Security alarms should be installed in strategic points all over the site area after completion of the project. - Contractor should provide adequate security during the construction period when there is no work going on at the site e.g. during the night and weekends.
Fire hazards and Fighting	<ul style="list-style-type: none"> - Ensure that all firefighting equipment are strategically positioned, regularly maintained and serviced. - Provide fire hazard signs such as ‘No Smoking’ signs, Direction to exit in case of any fire incidence and emergency contact numbers should be provided. - Install an automatic fire alarm system for the entire project mostly on operation. - Install firefighting equipment, heat and smoke detectors, static water storage tanks for firefighting

5 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. Sustainable Environmental Management (SEM) will be ensured during project implementation and occupation by avoiding inefficient/inappropriate use of natural resources, conserving nature sensitively, and ensuring respectful and fair treatment of all project workers, the general public in the area, and project residents.

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. The proposed development, in our opinion, is a timely enterprise that will contribute to the proponent's timely investment as well as the government's aim to tax fuel in Namibia.

As a result, Namib-Enviro Consultants came to the following conclusions and made the following recommendations:

The detected possible negative consequences linked with the proposed project and related activities were deemed to be of medium magnitude. The project can move on with its implementation as long as the mitigating measures outlined are followed. Nonetheless, major attention should be directed toward minimizing the occurrence of consequences that would impair the environment as a whole. As a result, by properly executing the recommended management action steps and conducting ongoing monitoring as advised below, these impacts can be reduced. As a conclusion of this report's observations it is recommended that the development be approved because the local public is very enthusiastic and eager to see progress in their neighbourhood.

As a result, it is recommended that the project site's petrol tank construction and operations be given an Environmental Clearance Certificate, provided that the following critical criteria are followed:

- ✓ In order to meet environmental sustainability goals, all mitigations described in this EMP should be implemented as specified and where necessary, and improvements should be made efficiently. As a result, the EMA No. 7 of 2007 and its 2012 EIA Regulations, as well as the environmental clearance certificate conditions, have been met.
- ✓ All necessary environmental permits, licenses, and approvals for building and operations have been received.
- ✓ The Proponent and all of their employees follow all legal requirements governing this type of project and its associated activities;
- ✓ Environmental monitoring requirements are followed; and
- ✓ All necessary environmental (water and biodiversity) and social (occupational health and safety) components are protected as recommended, with the appropriate precautions/mitigation measures taken.

Reference

Mendelsohn, J., Jarvis, A., Roberts, A., & Robertson, T. (2000). *Atlas of Namibia - a portrait of the land and its people*. Cape Town : David Philip Publishers.

Mendelsohn, Jarvis, A., Roberts, C., & Robertson, T. (2009). *Atlas of Namibia*. Cape Town: Sunbird Publishers.

Mendelson, J., & el Obeid, S. (2002). *The Communal Lands in Eastrn Namibia*. Windhoek: Research and Information Services of Namibia.

NSA. (2012). *2011 Population and Housing Census: Otjozondjupa region*. Windhoek.

RES. (2022). *Environmental Assessment for the Proposed Development of a Lodge near Waterberg Plateau National Park, Otjozondjupa Region*. Windhoek: Resilient Environmental Solutions cc (RES) .

Classifieds

Contact: Mandy
 • T: 061 24 6136 • C: 081 895 8296 • E: mandy@confidente-namibia.com

Riverdale Private Academy in Rundu is hiring

1. 3 x Qualified teachers needed to tutor the following subjects: Mathematics & Physical Science, Agriculture and Biology, English and Development Studies. Requirements: 4 year degree in the respective subjects and 3 years teaching experience.

2. Head of Center needed to oversee all the operations of the center, coordinate and provide curriculum support to tutors and act PR of the center Requirements: Related qualification and at least 3 years experience in leadership position

Submit Application letter, CV and supporting documents to: riverdaleprivateacademy@gmail.com not later than 31/01/2022. No late applications will be considered. For more information contact +264813236094 or +26481349782
NB: Foreign nationals are encouraged to apply

PUBLIC NOTICE

Notice is hereby given that Nghivelwa Planning Consultants (Town and Regional Planners) on behalf of the owners of Erven 13 and 15, Onethindi, intends applying to the Oniipa Town Council and the Urban and Regional Planning Board for the:

- Subdivision of Erf 13, Onethindi into 9 Erven and Remainder and subsequent amendment of the title conditions of proposed Erven 1-9 of Erf 13, Onethindi from "Business" to "Residential";
- Subdivision of Erf 15, Onethindi into Erf A and Remainder;


It is the intention of the owners to subdivide Erf 13, Onethindi into 9 Erven and Remainder and subsequently amend the title conditions of the proposed Erven 1-9 of Erf 13, Onethindi from "Business" to "Residential". The proposed subdivision and amendment will enable the owners to construct residential properties on proposed Erven 1-9 of Erf 13, Onethindi and formalize an existing business on the Remainder of Erf 13, Onethindi.

Further take notice that the plans of the erven lie for inspection on the town planning notice board of the Oniipa Town Council: Ground floor, Oniipa-Oshigambo Main Road, Oniipa and the Applicant: Suite 4, Paragon Office Suites, Garten Street, Windhoek.

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Oniipa Town Council and with the applicant (Nghivelwa Planning Consultants) in writing within 14 days of the last publication of this notice.

The last date for any objections is: 11 February 2022

Applicant: Nghivelwa Planning Consultants
 P O Box 40900, Ausspannplatz
 Web: www.nghivelwa.com.na
 Email: planning@nghivelwa.com.na
 Tel: 061 269 697 Cell: 085 3232 230




ENVIRONMENTAL IMPACT ASSESSMENT FOR AN OVERHEAD DIESEL TANK IN OTJINENE OMAHEKE REGION (100KM FROM OTJINENE BUSINESS DISTRICT).

Namib-Enviro 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 process installing a over head tank along side road no D:3806

PROPOSITOR: KEHJUMURAMBA TRADING CC

DESCRIPTION OF ACTIVITY: ALONG SIDE ROAD NO D 3806

LOCATION OF THE ML AREA: OMAHEKE REGION, OTJINENE

Interested and Affected parties (I & AP) are invited to register with Namib-Enviro consultants for the proposed development within 14 days 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: **5 NOVEMBER 2021**

Email: nambienviro@gmail.com
 Cell: 081-4801644

PUBLIC NOTICE ENVIRONMENTAL IMPACT ASSESSMENT

Notice is hereby given to all interested and Affected Parties (I & AP's) that an application will be made to the Environmental Commissioner for the Environmental Clearance in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (GN No. 30 of 6 February 2012) for the following intended activity:

- Township Establishment or proposed Omari Estate on Portion 60 (a portion of Portion H) of the Farm Brakwater No. 48.

Location: Portion 60, Brakwater, Windhoek, Khomas Region.
Environmental Consultants: Nghivelwa Planning Consultants, planning@nghivelwa.com.na, 0853232230

All I&APs are encouraged to register and raise concerns or provide comments and opinions with the consultant. All I&APs will be provided with a Background Information Document (BID) comprising of detailed information for the intended activity. A public meeting will be held on site, Portion 60, Brakwater, Windhoek on the 3rd of February 2022 at 14:00

Should you wish to register as an I&AP and receive BID, please contact:

Nghivelwa Planning Consultants
 Tel: +264 61 269697
 Cell: +264 85 3232 230
 Email: planning@nghivelwa.com.na
 Web: www.nghivelwa.com.na

DEADLINE FOR COMMENTS: 18 February 2022

PUBLIC NOTICE TOWNSHIP ESTABLISHMENT

Notice is hereby given that Nghivelwa Planning Consultants (Town and Regional Planners) on behalf of the owners of Portion 60 (a portion of Portion H) of the Farm Brakwater No. 48, intends applying to the Windhoek Municipality and the Urban and Regional Planning Board for the:

- Township Establishment of Omari and Omari Extension 1 on Portion 60 (a portion of Portion H) of the Farm Brakwater No. 48; and
- Rezoning of Portion 60 (a portion of Portion H) of the Farm Brakwater No.48 from "Residential" with a density of 1:5ha to "Undetermined".



It is the intention of the owners to rezone Portion 60 (a portion of Portion H) of the Farm Brakwater No.48 from "Residential" with a density of 1:5ha to Undetermined to allow for the township establishment of proposed Omari and Omari Extension 1. The proposed Townships will contain ±513 erven with mixed land uses.

Further take notice that the plan of the proposed township lies for inspection on the town planning notice board in the Customer Care Centre, Main Municipal Offices, Rev. Michael Scott Street, Windhoek and the applicant: Suite 4, Paragon Office Suites, Garten Street, Windhoek

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Windhoek Municipality and with the applicant (Nghivelwa Planning Consultants) in writing within 14 days of the last publication of this notice

The last date for any objections is: **18 February 2022**

Applicant: Nghivelwa Planning Consultants
 Cell: +264 85 3232 230
 Email: planning@nghivelwa.com.na
 Web: www.nghivelwa.com.na

ENVIRONMENTAL IMPACT ASSESSMENT FOR AN INSTALLATION OF AN OVER HEAD TANK IN OMAIHI VILLAGE A PLACE BETWEEN OKONDJOTU AND OKAKARARA

Namib-Enviro consultant herewith gives notice in terms of the Environmental Management Act (7 of 2007 and Regulation 21) of the Environmental impact assessment (EIA) for an installation of an overhead tank capacity (23000) L

PROPOSITOR : FIVE OCTOBER INVESTMENT CCC

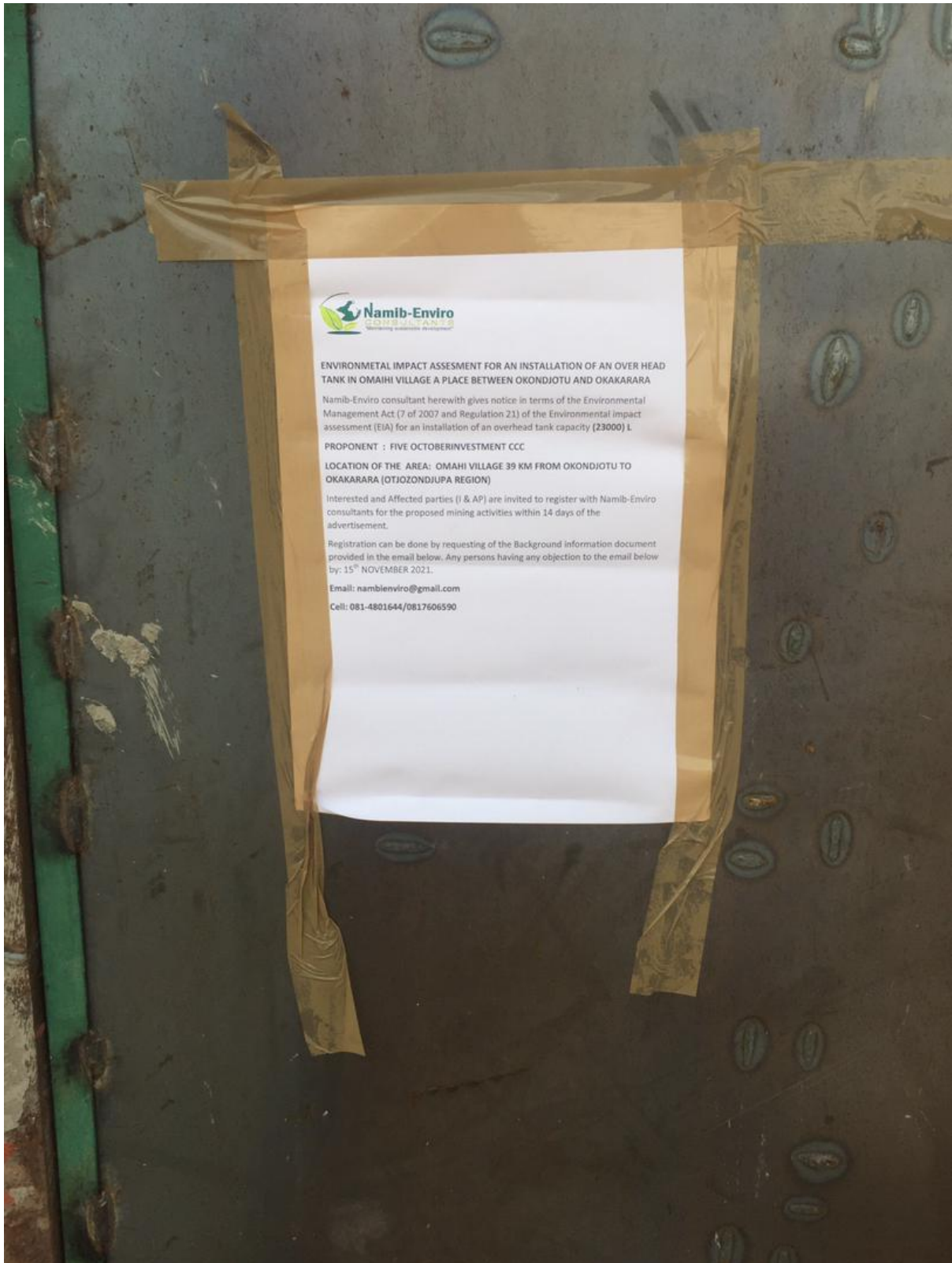
LOCATION OF THE AREA: OMAHI VILLAGE 39 KM FROM OKONDJOTU TO OKAKARARA (OTJOZONDJUPA REGION)

Interested and Affected parties (I & AP) are invited to register with Namib-Enviro consultants for the proposed development within 14 days 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: 15th NOVEMBER 2021.

Email: nambienviro@gmail.com
Cell: 081-4801644/0817606590

Appendix B Notice that was displayed at local shebeen



Appendix C Curriculum vitae for the proponent