ENVIRONMENTAL SCOPING REPORT FOR THE OPERATION AND MANAGEMENT OF THE NEW LANDFILL SITE IN TSUMEB

PROCUREMENT REFERENCE NO. SC/RP/TPM-01/2021

REPORT

Submitted to:

Ministry of Environment, Forestry & Tourism

10 May 2024 Presented by SM Dynamic Environmental Consultants. INDUSTRIAL HUB OF

COME TO

OSHIKOTO REGION



"Environmental pollution is an incurable disease. It can only be prevented".

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LIST OF ACRONYMS

DEA	Department of Environment Affairs
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
EC	Environmental Commissioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ESA	Environmental Scoping Assessment
ESR	Environmental Scoping Report
GIS	Geographic Information System
MEFT	Ministry of Environment, Forestry Tourism
NSWMS	National Solid Waste Management Strategy

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1. INTRODUCTION & BACKGROUND

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This Environmental Scoping Report (ESR) has been prepared to address the potential environmental impacts that could arise from the construction and operations of the new landfill facility in Tsumeb. The intended facility will be located on the outskirts of Tsumeb, planned to serve the inhabitants of Tsumeb, for about 20 years.

The purpose of the project is to alleviate the impacts of the existing dumpsite and uncontrolled solid waste disposal on the environment. Proper designs/selection, construction, and management of the solid waste landfill (and upgrading of the solid waste collection network) would mitigate such negative impacts. The main section of this report includes an overview of the legal frameworks, a description of the project and environment, an impact assessment, an identification of mitigation measures, and a presentation of an environmental management plan (EMP).

Currently, waste generated within Tsumeb town is inappropriately disposed of either in open dumpsite or directly in the environment. The situation is exposing the public to associated negative health impacts and is leading to the deterioration of the natural environment in the area. Tsumeb is considered a commercial and tourism area, and therefore impacts on the natural and esthetic value have significant negative implications. Proper waste collection, treatment, and disposal of municipal waste in the area is of utmost importance to avoid such impacts and will be addressed by the construction of the new landfill, along with other solid waste management measures, to serve the town.

The landfill site is an area of land that has been specifically engineered to allow for the deposition of waste onto and into it. Environmental regulations require proper management and control of such activities as they may cause environmental issues if not managed accordingly.

Landfilling work includes the methods of landfilling, spreading and compaction, cover requirements, and access roads. These items must be considered carefully before undertaking landfilling work as they are interlinked and interdependent. To sustain proper operation and maintenance of the landfill, it is required to develop an operation & maintenance plan. This report document is not only aimed at finding a suitable site for the development of the new landfill but most importantly it is focused on designing a functional landfill facility that will deliver the most environmentally friendly option (recycling/MRF, incineration, landfilling, and composting) for MSWM system in Tsumeb.

The Tsumeb Municipality has commissioned the Environmental study to comply with the Environmental requirements as outlined in the Environmental Management Act (EMA) (Act. No.7 of 2007). This was necessitated by numerous complaints from the public about the poorly operated municipal dumpsite and associated impacts on the biophysical and social environment. In November 2020, a compliance order was served by the Office of the Environmental Commissioner to Tsumeb Municipality for illegal dumping of waste and inappropriate management of waste. The existing dumpsite is required to be closed off, and rehabilitated, and conduct an Environmental impact Assessment for the new site as per Part VII, VIII and IX of the Environmental Management Act of No.7 of 2007.

SM Dynamic was appointed to undertake and facilitate the Environmental Scoping Study. The Consultant shall facilitate the EIA process for the site selection for the new landfill. The purpose of this study is to extend beyond the traditional ways of disposing of waste and to ensure compliance with relevant legislation. The Namibian Constitution through Article 91(c) and 95 makes provision for the overarching guidance in terms of the maintenance and sustainable use of natural resources for the benefit of all Namibians, both present and future. The Environmental Management Act No.7 of 2007 sets principles of environmental management which include that "the reduce, re-use, and recycling of waste must be promoted". Article 5 of the EMA provides that a person may not discard or dispose of waste, except (a) at a disposal site declared or approved by the Minister or (b) in a manner or by means of facility or method and subject to such conditions as the Minister may prescribe. The construction of a waste facility, treatment of waste, and disposal of waste and the import, processing, use and recycling, temporal storage, and transport of waste may not be undertaken without an Environmental Clearance Certificate (ECC).

The proposed site is located on the Tsumeb Tsintsabis road within the Municipal boundaries of the Tsumeb Municipality (*Latitude – 19.227703* and *Longitude – 17.705859*) and is 5 km. this area sits on an area of about 17 $000m^2$ (1.7Ha) (Picture 1 below).



Figure 1: Study Area



Figure 2: Proposed New Landfill Site Location

	Proposed Site location		
#	Longitude	Latitude	
А	17.696795	-19.219271	
В	17.696339	-19.220795	
С	17.696893	-19.221045	
D	17.696845	-19.221801	
E	17.699792	-19.222696	
F	17.700459	-19.220557	

Table 1: Site GPS Coordinate

1.1. Motivation for Proposed Site

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The proposed site is measuring about 20 hectares, and it is classified as contaminated land which is already disturbed by smelter activities. This proposed site initially belonged to Dundee Precious Metal until it was donated to the municipality council. It is surrounded by four land use types namely, private farm, main road, industrial area, and a crusher plant.

1.2. Advantages of the proposed site

- Distance from town the site selected, and the transport route don't conflict in any way with the sensitive land use and the proposed landfill development will operate in a manner that does not impact adversely on either the environmental values of the surrounding land.
- Proximity to waste source, the proposed landfill facility is sited in a manner that minimizes any adverse economic and environmental impacts arising from the transport of wastes.
- Site suitability, the site's characteristics, including topography, geology, hydrology, fauna, and fauna do not trigger any adverse impacts.
- Protection and Enhancement of conservation values, Tsumeb Council will act through the siting, design, and operational phases of the project in a manner that will result in a net positive environmental benefit for the conservation values of the area surrounding the proposed landfill.
- Buffer distances, the site selected, and the transport route is sufficiently separated from sensitive land use such as rivers to ensure that the landfill facility does not under normal conditions impact adversely on either the environment values or selections of the surrounding environment.
- Zoning allows for this kind of development to occupy this site.
- Site is not visible to passer-by as compared to the old dumpsite making it ideal for the proposed development.
- The adjacent existing land uses do not conflict with the proposed development as they are located within a reasonable distance.
- The proposed site will not require heavy maintenance such as topography, drainage, or geotechnical issues.
- The soil conditions are conducive to the project's structural needs.
- The site is available to the council for the proposed development.
- There are no political issues that might oppose this development.

1.3. Current land use of the area

The following land use activities were identified and distance from the proposed site was measured.

Table 2: Land Use Types

Land Use Type	Distance from proposed site (meters)
1. Agricultural farm	911
2. Main Road	340
3. Industrial Area	570
4. Henning Crusher Plant	507

1.4. List of stakeholders

The key stakeholders were identified during the screening phase and background information documents with project statement letters were shared through email and hand delivery. Another follow-up stakeholder communication was delivered personally to all the key stakeholders (See attached signed documents).

Table 3: Stakeholders list

Name	Address	Email address	Contact Number
Mr. K.K. Grunschloss	Owner of Open area adjacent to the Municipal sewerage plant	kallie@logistixinternational.com	0811299119
Henning Crusher (PTY) Ltd	Namutoni Road Box 184 Tsumeb		067 22085
Afrox Ltd	Namutoni Street Box 499 Tsumeb Namibia	bocifo@boc.com	067 220042

Oshikoto Regional Council	Box 19247, Omuthiya	tsumeb@oshikotorc.gov.na	065 220073
Dundee Precious Metal	Box 936 Tsumeb	tsumebcommunications@dundeeprecious.com	067 2234000
Oshikoto Auto Electric	Box 655 Tsumeb		067 220427
Commercial Truck Parts Africa	Box 1419 Tsumeb	Gerry Benz <u>ctpa@iway.na</u>	067 221006/7
CES Auto Trading	Box 2089 Tsumeb	<u>cesauto@gmail.com</u>	0812831104
Auto Tech Namibia		atangies@mweb.com.na	0811270117 067 222912

The mitigation measures recommended in this report and the conditions of approval provided in the Ministry of Environment, Forestry and Tourism (MEFT) record of decision apply to three phases of the project cycles namely:

The Design Phase: These measures relate to the detailed layout, planning, design, and decommissioning of the landfill site, and will largely be implemented by the Tsumeb Municipality, prior to the commencement of any physical activities on the proposed new site.

The Construction Phase: These mitigation measures are applicable during site preparation and construction on site and will thus need to be implemented by the appointed contractors and sub-contractors. The construction phase of the project is considered to include all activities related to the following:

- Site preparation
- Construction activities; and
- Operational activities.

The Operational Phase: These mitigation measure that are applicable during the operation of the Landfill site and must therefore be implemented by the Tsumeb Municipality or by a qualified landfill management company.

The tasks that were undertaken in this Environmental Assessment covered the investigation of the following: an appraisal of the risks, vegetation, soil & geology, climate, water, and socioeconomic. The Scoping Report together with the Environmental Management Plan (EMP) will be submitted to the Environmental Commissioner for consideration in the application for the Environmental Clearance Certificate (ECC).

The following methods were adopted in this assessment to assess the environmental issues; data collection from the proponent and key stakeholders regarding the project site and multicriteria method was used for new site selection.

2. THE NEED AND DESIRABILITY

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Tsumeb is a town of about 19,275 (2011) inhabitants and the largest town in Oshikoto region in northern Namibia. The town of Tsumeb is a gateway to the north of Namibia and it is the closest town linking to the Etosha National Park. The current waste disposal practice was found not suitable in terms of the set environmental requirements and needs to be closed and rehabilitated. If the office of the Department of Environmental Affairs (DEA) does not grant Tsumeb Municipality an Environmental Clearance Certificate to develop a new landfill facility, both the municipality and residents will be forced to continue operating illegally at the current dumpsite or to pursue other less desirable waste management options. Additionally, there is a risk to human health should the current operation remain.

3. SCOPE OF WORK

SM Dynamic Investment cc was appointed by Tsumeb Municipality to undertake the EIA for the site selection for the establishment of a new landfill site and application for Environmental Clearance Certificate (ECC).

Any other permits, licenses, or certificates that will be required further with this proposed development of the new landfill site needs to be applied for by the project proponent (Tsumeb Municipality).

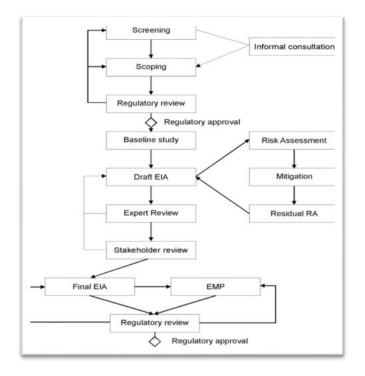


Figure 3: EIA Process in Namibia

The Scope of work for this scoping assessment is to:

- Undertake an Environmental Scoping Assessment (ESA) and develop an Environmental Management Plan (EMP) for the operation and management for the new landfill site in Tsumeb.
- Develop and submit a Scoping report and EMP to the Department of Environmental Affairs, as part of the application for an Environmental Clearance Certificate (ECC).
- Conduct a public consultation process and maintain a stakeholder register.
- Enforcement of Legal Framework such as the Namibian Constitution Article 95, Environmental Management Act (Act No.7 of 2007), and subsequently, the EIA regulations of 2012 (Government notice no: 30 of 2012).

4. APPROACH AND METHODOLOGY

The assessment included the following activities.

- Site Assessment (site visits).
- Desktop Review.

- Conduct the EIA Process (Assessment and description of the study area, recommended sites, or the affected environment).
- Participation process (Public): Identification of the affected and interested stakeholders and authorities, Newspaper Advertisement, scheduled and hosted participation meetings and developed public consultation report.
- Develop an Environmental Scoping Assessment Report and circulate it to interested and affected parties.

Develop EMP which will comprise of the following.

- Induction and code of conduct for all staff members on the provisions of EIA and EMP.
- Communication mediums and channels during survey operations.
- Health and Safety.
- Waste Management and Pollution Control.
- Environmental and ecological systems.
- Rehabilitation and Decommissioning.

It is anticipated that should the Environmental Clearance Certificate be granted, the Tsumeb Municipality will source funding for the setting of detailed engineering designs for the new landfill facility to be constructed and operated in line with Environmental Management Act (EMA) requirements and National Solid Waste Management Strategy (NSWMS).

The overall structure, use of terminology, and approach presented in this report document will be standardized between sub-sections. It is recommended that a standard Environmental Management Plan (EMP) be adopted for the method section to ensure that the appropriate information is presented in a consistent and accurate manner to allow a simplified interpretation and implementation.

5. DETAILS AND CV OF AUTHOR

This report was compiled by Mr. Kluivert Mwanangombe, who is the Lead Environmental Practitioner for SM Dynamic Investment cc. Mr. Mwanangombe holds a university degree in Environmental Engineering (Cape Peninsula University of Technology), a Diploma in Land Use Planning (NUST), and an Honours Degrees in Environmental Management from Stellenbosch University. He has more than 12 years' experience in solid waste management and environmental management. Most of his experience was spent in the mining industry and local authority. He is a panel member of the National Solid Waste Advisory Committee and e-waste National Policy Formulation Committee.

6. LEGAL REQUIREMENTS

Table 4: Legal Framework

LEGISLATION	PROVISION AND REQUIREMENTS
Article 95 of the Namibian Constitution	Provide overarching guidance in terms of the maintenance and sustainable use of natural resources for the benefit of all Namibians, both present and future.
Waste Classification and Management Regulations (GN R634 of August 2013	To ensure adequate and safe storage and handling of hazardous waste, and to inform the consideration of suitable waste management options. These regulate the classification of waste in terms of SANS 10234; prescribe requirements for the assessment of waste and destined for disposal (GN R 635); requires that disposal of waste to landfill take place in terms of GN R 636; prescribe requirements and timelines for the management of certain wastes and prescribe the general duties of waste generators, transporters, and managers.
Environmental Management Act No.7 of 2007	Ensures that the significant effects of activities on the environment are considered carefully and timeously. It promotes the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters relating to the built environment.
National Solid Waste Management Strategy, 2018	Provide for a coordinated funding, regulations, action plan for proper solid waste management and facilitate stakeholder collaboration.

Public Health and Environmental Act, 2015	The objective of this Act is to.
	Prevent injuries, diseases, and disabilities.
	Promote individuals and community from public health risks.
	Provide for early detection of diseases and public health risks.
	Promote public health and wellbeing.
Atmospheric Pollution Prevention Ordinance, No.11 of 1976	To provide for the prevention of pollution of the atmosphere, and for matters incidental thereto. The ordinance deals with administrative appointments and their functions; controls of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicles emissions; and general provisions.
The Soil Conservation Act No.76 of 1969	The Act provides guidelines for the prevention and combating of soil erosion, the conservation, improvement, and manner of use of the solid and vegetation and the protection of water sources.
Waste Disposal Site Guidelines, 2017	Provides guidelines and specifications for Sanitary Landfills and Criteria for Site Selection.
Basel Convention, Framework Convention on Climate Change	Aimed to ensure environmental sound management of hazardous waste and other waste through the reduction of their movement, for the purpose of reducing their impacts on human health and environment.

7. UNDERSTANDING WASTE MANAGEMENT IN TSUMEB

7.1. Project Rationale

Waste management consists of various elements such as legal framework, organizational management, technology, environment, and social considerations. Instinctively, people and organizations with differing positions and opinions are involved. If the differences or conflicts in opinions on waste management make it difficult to reach a consensus, it is important to revisit the guiding principle of "maintaining and improving the sanitary environment in cities and ensuring that people can live healthfully" as committed in National legislation.

The Municipality is responsible for waste management in the entire town and intends to construct a new landfill site. The current dumpsite does not comply with the minimum waste disposal requirements and standards permitted by the Ministry of Environment, Forestry and Tourism (MEFT), and has reached its full capacity.

An order was served by the Office of the Environmental Commissioner to stop the current illegal dumping of waste, close of the current site, rehabilitate, and find an alternative site for a new landfill site. The Tsumeb Municipality working towards improving the environmental performance at its waste disposal site to comply with the Environmental Management Acts No.7 of 2007 and its regulations of 2012.

8. CURRENT WASTE MANAGEMENT PRACTICES

8.1. Waste Generation

The town generates about 500 tonnes of waste monthly, which requires to be disposed. The current existing dumpsite has reached its full capacity and needs to be closed. The Tsumeb Municipality is responsible for the daily collection and disposal of public domestic and garden refuse from residential and business areas including the maintenance of open spaces and street cleaning. The common municipal waste management practices include recycling, landfilling/ open dumping. The development of waste management in Tsumeb has not kept up with the rapid increase in waste that has accompanied rapid urbanization. The collected waste is improperly disposed and open dumping together with open fires remains as the major concern of the town. Apart from the commonly known problems of insects and pests, waste can also cause contamination of surface water and groundwater from leachate, offensive odors, and fires.

13 8.2. Summary of the Main Mitigation Measures

To try to understand the current solid waste operations, the consultants carried out a baseline assessment, table 2 below indicates the number of survey aspects considered.

Table 5: Baseline Assessment

Impact	Mitigation Measures
Generation of landfill gas and odors from decomposing process	 Proper ventilation Applying cover material for waste on a daily and regular basis
Soil erosion	 Reduce water flow over bare soil. Reduce velocity of water by using effective contouring to reduce slope grades, ditch blocks to reduce runoff velocities and re-vegetation of bare ground whenever possible to stabilize the soil and help to reduce run-off water velocities. Appropriate measures including provision of berms and silt traps during construction.
Contaminations of surface and ground water	 All water from the waste should be kept in an appropriate leachate pond. Use appropriate liners-either natural or synthetic to contain leachate.
Noise, pest, dust, and other disturbances	 Establish buffer zones. Daily proper cover of waste. Use dust suppressor.

	Proper maintenance of machineries, vehicles, and use of low noise equipment.
Occupational and public health hazards	Provision and use of proper personal protective equipment.
	Regular medical check-up and provision of appropriate sanitary facilities.

9.1. Landfill Operation

Appropriate numbers and quality of staff need to be employed to supervise dumping in the disposal area. The staff at the tipping face should ensure that users are not dumping in other areas across the site and only in the designated disposal area. The responsibility for site access at the entrance, and supervision of dumping, may be more practically undertaken by the same staff member of the contractor. This is only feasible if the entrance and the tipping face are within a short walking distance. The disposal area should be kept as small as possible and clearly defined. The area can be defined with the use of soil bunds or excavated trenches.

a) Cell Construction

A cell is a unit of landfilled space or area including cover material that is developed during one operating period. Ideally, one operating period is one day, but it varies from several days, a week, or even a month, depending on the availability of landfill equipment and cover materials. Sandwich Method - Waste is placed horizontally in layers for the sandwich method and is useful for filling in narrow valleys. Cell Method - An amount of solid waste is covered with soil in cells. This method is the most popular method of filling. The amount of solid waste deposited during one operating period (usually one day) determines the size of each cell. As each cell is an independent filling area covered with soil, each cell acts as a firewall to minimize the spread of any underground landfill fires. Dumping Method - This method involves rubbish trucks simply dumping solid waste into the landfill site. As the solid waste is not compacted, the landfill base is weak, and negative impacts such as bad odour and harmful vectors may develop. Due to these problems, it is not recommended as a method of landfilling.

b) Order of Landfilling

Landfilling on a waste site can be done either of two ways: in a downstream direction, or, toward the upstream direction. Landfilling from uphill downwards allows easy access to the tipping face via the already landfilled area. However, sliding of the landfilled layer may occur if the landfilled slope is steep, especially during periods of heavy rain. In contrast, landfilling from downhill upwards gives reduced access to the tipping face but reduced risks of slippage. Front-End Loader System. These are large engineering vehicles used to pick up heavy refuse in open spaces or at illegally dumped hot spots.

c) Spreading and Compaction

Method - Spreading and compaction can be performed in two ways, pushing down or pushing up the slope by the compaction equipment (bulldozer, loader, and landfill compactor). It is easier to push solid waste into a uniform thickness if spreading uphill and better compaction is achieved. If solid waste is down the slope, the waste at the base of the slope tends to be thicker. The spreading and compaction of the waste have a direct influence on the capacity and stabilization of the landfill. If low compaction is achieved the landfill site will last a shorter period than that if high compaction is attained. When pushing solid waste, waste should be spread thinly out in layers of about 30 to 50cm. The layer should be made as uniform as possible. Between each layer, the compacting equipment needs to make regular passes over the waste layer. The layers should make a lift of about 2 meters with a maximum of 3 meters. A slope gradient of 3:1 (about 20 degrees) is recommended for pushing up (compacting) the slope.

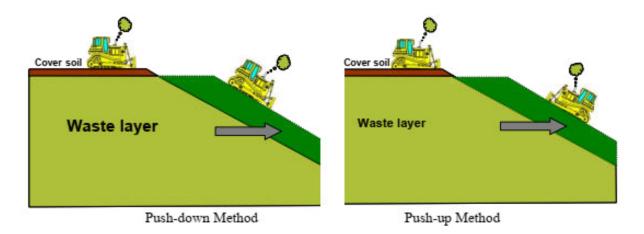


Figure 4: Method of Spreading and Compaction

d) Landfill Equipment

Landfill equipment should be carefully selected to suit the conditions of the landfill. Several factors need to be considered. Such factors include the type of waste, amount of daily incoming waste, site characteristics, weather conditions throughout the year, etc.

Typical problems with landfill equipment include breakdown from wear and tear, entanglement of wires or metal pieces caught in moving parts, loss of hydraulic pressure, or clogging of the radiator mesh due to dust and dirt. Therefore, a regular service schedule for preventive maintenance for the equipment must be followed. The activities that require the use of heavy equipment include:

- Grading and maintaining site access roads,
- Excavation of disposal areas,
- Excavation and loading of soil for cover, and,
- Spreading, compacting, and covering the deposited waste.

The equipment that can be used to undertake these activities includes bulldozers, multipurpose utility loaders, wheel-mounted loaders, landfill compactors, graders, backhoes, etc.

It is necessary, when selecting equipment, to ensure that:

• Maintenance parts and servicing are available.

- Operators can effectively use the equipment.
- Compaction efficiency is considered (which will affect the landfill life)

Considering conditions such as the amount of incoming waste, type of waste, and availability of equipment, then landfill equipment with small capacities will be sufficient for Tsumeb's operation. For instance, a small bulldozer, say 7~10 tons, is enough to handle 200 tons of waste per day. It should be also considered to share (or borrow) the equipment as much as possible with other government departments or companies to reduce the number of machineries if exclusive use at the landfill is not possible. A storage shed should also be included so that maintenance for the equipment can be located on-site.

9.2. Working (Tipping) Face

The working face of a landfill should be kept as small as possible. The advantages of maintaining a small face include less litter as there is less waste exposed to the wind, better control of scavengers, less leachate generation as there is less rainwater entry, and covering and compacting waste can be undertaken more efficiently. The amount of soil cover is also minimized. A large landfill should not extend its tipping face any greater than 30m by 50m, whilst smaller operations should aim for a 20m-by-20m area. During the wet season, efforts should be taken to minimize the tipping face size as much as possible as this will help to reduce the amount of surface water penetrating the waste to produce leachate. The working face can be increased during the dry season to a wider area.

9.3. Cover Material and Disposal Operation

Necessity of Cover Material

To maintain sanitary conditions the waste needs to be covered on a regular basis. The frequency of covering will be dependent on several factors, such as weather conditions, the type of waste being landfilled, or the availability of landfill equipment and cover materials. Covering a small landfill site can be done manually, but at larger sites, equipment will need to be obtained to undertake the spreading, compaction, and covering of the deposited waste. Cover material needs to be identified and sourced, preferably on-site, or else from a borrow pit nearby. Cover material ideally should consist of inert, non-combustible, dry, and dense material. Once the material has been spread and compacted over the waste, then it should prevent pests and vermin from accessing the waste, minimize rainwater infiltration, prevent litter migration, and provide a stable platform for tipping vehicles. The placement of soil over solid waste also reduces the fire risk and the covered waste becomes an effective firewall. Suitable cover material could include soil, sand, crushed rock, crushed coral rock, ash, decomposed waste from another part of the site, demolition waste, sawdust, and garden waste. When covering, the thickness of the cover material should be approximately 20cm on the waste, since using too much cover material takes up a lot of space that should be filled with garbage instead.

Type of Cover Soil

There are three purposes of cover soil: daily, intermediate, or final cover soil. Daily cover soil, as the name suggests, is laid each day after the waste has been dumped and compacted. The best quality soil should be reserved for intermediate and final cover soil requirements. Intermediate cover soil is laid for the base for roads or over daily cover areas where landfilling will not be occurring for an extended period of time, and it is important that rainfall infiltration is prevented. Final cover soil is the soil placed on the top of the

landfill when the final waste is placed in the landfill unit. Final cover soil should be of good quality and preferably clay to form an effective barrier against rainfall.

Selection of Cover Soil

Cover soil can be classified as sand, silt, or clay and the permeability differs depending on the soil type. Permeable and porous sand types should be used for daily and intermediate cover for ease of spreading and compaction and to assist with waste decomposition at semi-aerobic landfills. The final cover soil needs to resist erosion by rainfall, be low permeability, and be suitable for sustaining plant growth. The final cover is usually clay-topped for these reasons.

Thickness of Cover Soil

The type of waste will determine the amount of daily cover soil that should be used. General municipal waste should be covered with about 20cm of soil, whilst very odorous waste (i.e. dead animals) should be covered with a thicker layer. When impermeable soils such as clay are used, the daily cover should be as thin as possible. Thicker requirements, approximately 50cm, are needed for intermediate cover. When completing the landfill, it is recommended that a minimum thickness of 50cm be placed for the final cover, if small plants and bushes are being planted afterward. When larger trees are planned for landscaping, more than one meter will be required.

Maintenance of Final Cover

The cover soil must be compacted uniformly to form a low permeability barrier across the top and slopes of the landfill. Care must be taken to prevent the cover being eroded by rainwater. The top of the cover should have a slope of 2-3% so that rainfall does not pass, and the side slopes should have a gradient of 20-30 degrees. Waste decomposes over time, causing settlement of the landfill and subsidence. This subsidence can cause cracking and sinking of the cover, as well as the formation of potholes. This can result in leachate volume increases, gas leakage, erosion of the cover soil, and landslides. During the following years after installation of the final cover, it should be inspected regularly for defects. Any areas of settlement should be filled in and repaired. At large and deep landfills, settlement can occur for up to 30 years after closure.

9.4. Leachate Management

Leachate management includes avoidance, collection, removal, treatment, disposal, and monitoring of leachate generated in the landfill. A program to regularly inspect and monitor leachate management needs to be developed and implemented. Leachate should be treated to the extent that it does not pose a health hazard before it is discharged into public water such as streams, rivers, wetlands, or the ocean. Normally, leachate treatment is a very costly exercise employing sophisticated systems in industrialized countries since leachate contains various chemicals and heavy metals in those countries. The quality of leachate should be tested periodically to see if there is any significant change in quality over time. Monitoring leachate quality also keeps you informed of the effectiveness of the treatment operation. The water level at the leachate retention pond needs to be monitored to ensure it is kept below the outlet of the collection pipe so that fresh air is naturally always provided into the pipe. Through the leachate recirculation process, the amount of leachate in the retention pond can be significantly reduced by evaporation.

9.5. Maintenance of Facilities

In order to maintain proper operations, landfill facilities must be regularly inspected and kept in good condition. Facilities to be maintained include access roads, landfill slopes, drainage, leachate collection, and the gas venting facility.

Access Roads

Access roads at landfills usually have a short lifespan. Two types of roads should be considered, trunk roads and branch access roads. The trunk roads are those roads that have existed on site for several years, while the branch access roads to the tipping face will usually only be used for a matter of months. The road should be designed according to the size of the vehicle their speed, and the geography of the land. Other considerations include safety measures such as guard rails to prevent traffic from falling steep slopes that inevitably exist at many landfill sites and also reinforcements to prevent slippage from slope failure. Diversion of water should be considered carefully across the whole site and drainage around the road network is also important.

Construction of Slope

The landfill slope is formed from the deposited waste and the exterior soil placed around the outside. It is the slope that the final form of the landfill will take and should be carefully considered as it may restrict the final usage of the site if not chosen wisely. The slope should fit in with the terrain in the area and soil characteristics of the landfill site. The earth bund is the final soil cover on a landfilled slope. Progressively building the bund as the landfill progresses is the ideal method of construction. Therefore, as each layer of the landfill is placed (approximately 2 to 3 meters high), the next layer of the bund should be constructed. When the new bund is built on the underlying landfill layers, a minimum setback of 1~2 m is recommended for every lift of 2~3 m. Even at a large landfill site, one lift should not exceed 5 m. As the landfill slope is usually built on a landfill layer, the stability of the slope is greatly dependent on the compaction and stability of the underlying landfill layers. Consult with engineers if you plan to install more than 3 lifts or 6 m high.

Erosion and Drainage

Since the landfill slope is easily eroded, preventive measures must be taken. Preventive measures against rainfall erosion include planting of the slope with plants and grasses. The installation of a drainage system is the most effective method of preventing erosion. Rainwater should be collected and diverted from steep areas and not allowed to pierce and seep into the landfill to form leachate. Sometimes springs can form on the side of a landfill slope. These leakages of liquid must also be collected as leachate. Crushed stones can be laid on the inside of a landfill slope to act as a drainage layer and keep the liquid within the

landfill for collection by the leachate collection system. This drainage layer is most suited if a leachate collection system has been installed in the landfill. Leachate Collection and Gas Venting Pipes - As the landfilling operation progresses, the leachate collection facility and gas venting facility need to be extended. Any damage or defects experienced during landfill operation should be repaired so that the designed functions will be restored. Special care must be taken not to damage these facilities during landfilling operations. Leachate collection pipes are easily damaged at the initial stage of landfill operation by either a direct hit or an excessive load of landfill equipment. The height of the waste layer on the leachate collection pile should exceed 1.5 meters for protection.

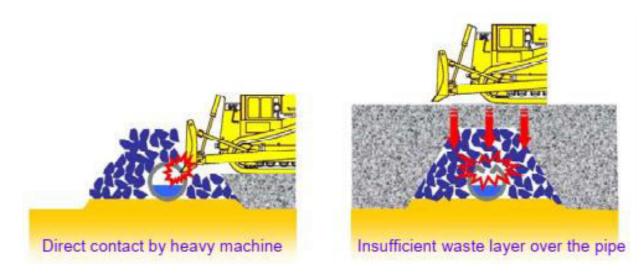


Figure 5: Causes of Damage by Landfill Equipment

10. CONSIDERATIONS AND ALTERNATIVES

The project proposes the operational and management of a new landfill facility in Tsumeb. However, it will require a structured assessment to ascertain if there will be any adhered impacts on the existing infrastructure (Land Use, Utilities) and the natural environment. Careful planning and EIA tools will be applied to EIA regulations and best practices.

11. PLANNING PROJECT SCHEDULING

If the financial, technical, and environmental/social feasibility of the project is established, the proposed key dates for the project will be as follows:

Table 6: Project Scheduling

Date	Milestone
August 2021	Initiate the EIA study (Environmental Screening Study)
October 2021	Environmental Scoping and Assessment (Specialist Studies if required)
March 2022	Submit EIA Scoping & EMP, Application for ECC to DEA for approval
March 2022	Record decision
April 2022	Site preparation new site
May - June 2022	Bid document preparation
July/October 2022	Construction of a new landfill facility

12. EIA EVALUATION METHOD

The concept behind the introduction of Environmental Assessment is to ensure local authorities adopt a consistent approach to conducting environmental risk assessments, particularly those for open disposal sites, as well as to assess the environmental impacts and mitigation options for long-standing unregulated waste disposal sites. Such sites are generally operated illegally and do not follow any legal requirements. This section assesses the pollution risk associated with the Tsumeb Dumpsite that likely poses a threat to the environment and public health. A tabulated evaluation of potential impacts identified is presented in the evaluation tables below which indicates that the impacts associated with the project vary from low to medium with mitigation.

It is possible to mitigate the potential negative impacts by committing to apply the related mitigation actions as outlined in the attached EMP. The main environmental concerns identified are dust, noise, soil, and water contamination. These impacts were evaluated using the scoring criteria outlined in Table 6 below.

22 Table 7: Impact rating criteria.

Significance Rating					
	LIST OF CRITERIA USED IN ASSIGNING A SPECIFIC RATING				
	INTENSITY	EXTENT	DURATION		
	High	Regional	Medium Term		
High	High	National	Short Term		
Significance	High	Local	Long Term		
	Medium	National	Medium Term		
	Medium	Regional	Long Term		
	High	Local	Medium Term		
	High	Regional	Short Term		
Medium Significance	Medium	National	Short Term		
	Medium	Regional	Medium Term		
	Medium	Local	Long Term		

	Low	National	Medium Term
	Low	Regional	Long Term
	Medium	Local	Medium Term
	Medium – High	Local	Short Term
Low Significance	Medium	Regional	Short Term
	Low	National	Short Term
	Low	Regional	Medium Term
	Low	Local	Long Term
Very low	Low	Local	Medium Term
Significance	Low	Regional	Short Term
	Very low	Local	Short Term
Neutral/No impact	Zero intensity with any combina	ition of extent and duration	

13. POTENTIAL IMPACT IDENTIFIED

This section describes how impact rating criteria were used to assess, evaluate impact, and develop alternatives by predicting and identifying the likely environmental impacts of the proposed landfill development including the detailed elaboration of alternatives as highlighted in table 7 above. The advantage of using these criteria is that they can act as inputs to, or double checks of, the risk appetite and risk-tolerance statement. Another advantage is that as the impact criteria become refined over time, distinguishing the types of risk that would result in immediate direct costs vs. future loss of revenue or liabilities to the organization may also be useful.

The following impacts were identified and assessed as follows:

• Noise Pollution

Noise levels in town are mostly influenced by community activities and are highly dependent on the wind speed. Noise simulations from SLR (consulting company for Dundee Precious Metal in Tsumeb), indicate that the proposed landfill development will not exceed the allowable noise level as per guidelines. The increase in noise levels above the background levels during the day and night will not be detectable. To mitigate this, the proponent will need to monitor the number of construction vehicles and machinery onsite during construction.

Aspect	Type of Impact	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Noise	-	2	2	4	2	MS	LS

Evaluation of impact:

• Dust

Based on data from SLR consultants, the ambient air quality monitoring stations in Tsumeb Town, the main contributor of airborne particulate matter (PM10) sources seem to be from the sewerage works and tailing facilities. The proposed waste facility will not produce dust that will trigger dust levels. However, a continuous dust monitoring program will be implemented on-site.

Evaluation of impact:

Aspect	Type of Impact	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust	-	2	2	4	2	Μ	L

• Waste generation.

A review of the current dumpsite was undertaken, and recommendations were made in the screening assessment for improved environmental performance. The major issues were the steep slopes (likely to cause a landslide), no fencing, open fires, and improper waste disposal practices. An order was issued by the DEA office to close the current dumpsite, rehabilitate, and find a new site.

Evaluation of impact:

Aspect	Type of Impact	Scale	Duration	Magnitude	Probability	Signific	ance
	impact					Unmitigated	Mitigated
Waste	-	2	2	4	2	М	L

• Soil and Water

The soil and geology of the proposed landfill site are not to be affected given that there are no significant excavations or construction activities to be generated by the development of the new landfill facility. Additionally, the soil and geology of the new landfill will not be affected given that no groundwater disturbance or contamination is anticipated during the construction works. However, control measures will be implemented in this EMP.

Evaluation of impact:

Aspect		Type of Impact	Scale	Duration	Magnitude	Probability	Significance	
							Unmitigated	Mitigated
Soil Water	&	-	1	1	2	1	L	L

• Contamination of Groundwater

Care must be taken to avoid contamination of soil and groundwater. The lining material should be installed according to specifications. No servicing of machinery on site should be allowed to avoid spillage. Spill kits should be made available on-site at all times.

Evaluation of impact:

Aspect	Type of Impact	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater	-	2	2	4	2	Μ	L

• Cumulative Impacts

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is a combination of effects resulting from environmental degradation.

Possible cumulative impacts associated with this proposed project include leakages, surface water contamination, and ecological disturbance. If not well managed and controlled, these impacts are likely to become significant. They can occur at both stages (constructional and operational) of the project development.

Evaluation of impact:

Aspect	Type of Impact	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Cumulative Impacts	-	2	3	4	2	L	L

In summary, all impacts assessed are expected to be low to medium and mostly short term and only applicable to the targeted study area and not affecting the surroundings. However, mitigation measures outlining options on how to reduce or lessen these potential impacts will be discussed in the Environmental Management Plan (EMP) attached.

14. ENVIRONMENTAL MANAGEMENT

Landfills are sometimes referred to as a typical NIMBY facility. The reason for this is that people suffer many nuisances caused by the landfills. Appropriate measures can minimize the nuisances as illustrated below (also refer to Tables 1 & 2, Section 4.1 Review and Assessment of Existing Conditions).

Odor

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Odor is sometimes very difficult to manage at a landfill site. All sites will generate odor to some extent, and it will generally be worse in wet, hot weather. Some measures which can be taken include:

- Immediate covering of highly odorous waste.
- Regular covering of waste.
- Ensure the tipping face does not pond water.
- Encourage residents to store waste in a dry condition (so that when waste reaches the landfill it is not as odorous).
- Maintain buffer zones around the landfill site (to minimize impacts on neighboring sites).

Dust

Dust control measures at a landfill site typically include wetting down dirt roads with a water truck. Regular rounds of the roads will need to be made by the water truck, particularly in periods of very dry weather. Water can be sourced from on-site surface water ponds or basins.

Fire and Smoke

Fires should be minimized at landfill sites as burning rubbish can generate poisonous gases and be an environmental and health risk. The type of control measures typically considered include:

- Regular soil cover to minimize the risk of fires.
- Developing a fire management plan including maintenance of an effective fire break around the perimeter of the site, and,
- Developing emergency procedures for minor and major fires, including soil cover, water spray, excavation of trench, etc.

Surface Water Quality

Landfill sites typically have a lot of exposed surfaces in which stormwater can become a significant source of sedimentation. A sedimentation basin or other soil erosion and sediment control measures may be useful so that water can be collected, and sediments be allowed to settle from the water before discharge from the site. Any measures constructed will need regular maintenance, particularly after heavy rainfalls. Stormwater that has traveled across the site may become contaminated. If surface waters

are contaminated, they may need to be directed for treatment along with the leachate (if a leachate treatment process is in place).

Visual Impact

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Improvement of a landfill site can contribute to reducing the NIMBY syndrome against rubbish dumps. Efforts should be made to try to keep waste from view of the public employing such measures as building a buffer zone with trees, constructing bunds, installing wooden or galvanised walls or fences, etc. This can reduce some of the potential impacts of landfill operations such as noise, dust, and odour. Even simple regular covering of soil over rubbish can significantly reduce the eyesore potential.

Public Health and Environmental Monitoring

Public health and environmental monitoring can provide an indication of the severity of impacts at the waste disposal site and how effective control measures are in reducing the impacts. Monitoring the aquifer(s) below a landfill site will provide an indication of how effective the leachate collection system is operating. Groundwater wells should be installed upstream and downstream of the landfill so that regional concentrations (background values) can be monitored and compared to downstream values.

Groundwater monitoring is quite expensive so the wells should be chosen with care and for optimum benefit. Groundwater and surface water quality should be monitored on a quarterly (every 3 months) or bi-annual (every 6 months) frequency. It is important to account for seasonal variations in the groundwater monitoring program. In addition, the water level at the leachate retention pond needs to be monitored so that any overflow of leachate or plugging of the outlet of the leachate collection pipe is avoided.

Gas monitoring needs to be conducted where there is potential of gases to accumulate in high concentrations, such as the outlets of gas venting pipes. Regular monitoring of landfill gases will enable you to see if the semi-aerobic system is functioning. It must be emphasized that measuring gases is of utmost importance when entering a deep pit or excavated place to avoid any accident caused by a deficiency of oxygen.

There also needs to be a mechanism for reporting and responding to complaints and problem-monitoring results. Results should be reported regularly to the responsible body so that decisions can be made to minimize and manage any outstanding issues.

15. SITE ASSESSMENT FOR THE NEW PROPOSED AREA

15.1. Site Location Proximity

The Tsumeb municipality is faced with a major challenge of land to realize its development objectives. The town is surrounded by farmlands, mining land, and privately owned land – with limited room for expansion. The study adopted the multicriteria evaluation method for site selection (details are discussed in the next section. The study identified a portion of land situated about 5 kilometers (-19.227703, 17.705859) along the Tsumeb - Tsintsabis road. This area is located on Portion 79 (a portion of Portion B) on a farm Town of Tsumeb and there exists an old building that used to be an abattoir (figure 7). The land previously belonged to Dundee Precious

29 Metals until August 2021 when it was donated to the Municipality of Tsumeb to develop a new landfill facility (see attached annexure).



Figure 6: Old Abattoir

16. MULTICRITERIA SELECTION METHOD

Choosing a suitable location for landfills depends on several factors and is a complicated procedure. These site selection procedures can benefit from the appropriate use of GIS. The most common benefits of GIS include its ability to; (i) capture, store, and manage spatially referenced data, (ii) provide massive amounts of spatially referenced input data and perform analysis of the data, (iii) perform sensitivity and optimization analysis easily, and (iv) communicate model results (Parson and Frost, 2000). GIS is an operational system designed to assist decision-makers make informed decisions. It uses the logic in the sequence (Map - Evaluate – Act, process) in supporting the decision-making process.

In this site selection assessment, a two-stage, multicriteria evaluation method was used. In the first stage, to find a suitable site, GIS digital map overlay techniques were used. Different siting restrictions were considered, and numerical and qualitative criteria were applied in an explanatory investigation of the study area. The resulting alternative sites were evaluated using multicriteria evaluation methods. In the second stage, quality of life indicators that represent economic efficiency, and environmental and technical economic criteria were applied to identify the most preferred alternative. The method was applied to the new landfill site for the Tsumeb Municipality. Although they were limited in available data (no cadastral layouts) such as shapefiles available for this project, the GIS team managed to design and develop varieties of information necessary to achieve the needed results.

In this study, to maximize the benefits of a traditional decision-making support system, determining areas for landfill site selection based on information on the land use from GIS is designed with various model that enables programming to be used as a decision support model.

The study area is Tsumeb town in the Oshikoto Region. The municipal council has decided on the construction of a new landfill site which will serve the whole of its residents. The landfill site requirements carry serious restrictions certain selection criteria must be followed as stipulated below. Tsumeb town where the proposed new landfill should be situated consists of privately owned farms, a mining area, a smelter processing plant, mountains, and the Jordan River stream. For selecting site alternatives sites, GIS digital map overlay technology is used and for evaluation of alternative sites compromise programming is used.

16.1. Selection Criteria

Selection criteria were given to include:

- I. site within 10km of Tsumeb Town, taking the State Hospital as the center
- **II.** be within a 1 kilometer from major roads to ease access. Main, arterial, and secondary roads were considered major in this case
- **III.** site to be located away from a conservation area, including farm areas, and mining areas such as the smelter processing plant.
- **IV.** Had to be at least a certain distance (100m) from the river streams depending on whether the rivers were perennial or non-perennial and in both cases, there were slope aspects to consider too.

16.2. Methodology for Site Selection

This section outlines the methodology used in identifying potential sites. In brief, the process of selecting the ideal site entails a process of elimination of unsuitable sites according to the criteria used. There is use of a suite of tools either individually or in combination e.g. using the buffer tool or using the multiple ring buffer to eliminate options. There was the use of selection by attribute to focus on specific given conditions which would form a basis for decision making. As accessibility is important in waste management services, roads were a key feature of consideration with final shortlisting looking at major roads where refuse trucks can drive on with the additional weight without causing damage to the roads.

Furthermore, the following factors for selecting a landfill site are groundwater depth, surface water vicinity, elevation, land slope, soil permeability, soil stability, flooding susceptibility, lithology and stratification, faults, land use type, nearby settlements and urbanization, cultural and protected site vicinity, wind direction, roads, railways, proximity to building materials, pipelines and powerlines, and proximity to airports.

The multi-criteria method revealed that the most suitable site to establish the new landfill site is at a location named Portion 79 (a Portion of Portion B) of the Farm Town of Tsumeb. This Portion of land previously used to belong to Dundee Precious Metals and was donated to Tsumeb Municipality (see attached Deed of Transfer).

The proposed site meets the set standards for the selection of new landfill sites as outlined by the Ministry of Environment, forestry and Tourism which are as follows:

- More than 3 km from the existing airport.
- More than 500m from the existing residential area.
- More than 1 kilometer of the National Park.
- Not close to any area at risk of flooding.
- More than 500 m from a water source and shallow aquifers.
- More than 500 m from the surface water source (No rivers in proximity).

In summary, the proposed landfill development on the identified site proposal will have no significant impact on the physical environment in a short to long-term period at both phases of the project (construction and operational phases). However, the SM Dynamic consultant strongly recommends a full implementation of the EMP to all parties involved in this project. Continuous monitoring of project activities will assist to better manage these potential impacts.

Results

The final layer as presented in the map below (figure 15) shows the spatial location of various sites. Green represents suitable areas. However, most of these suitable areas are located on private Townland or located at a distance very far from town. Prevailing wind direction, terrain, and distance made it possible to select a site 5 km north of town (figure 16 below, Latitude: - 19.227703 and Longitude: 17.705859).

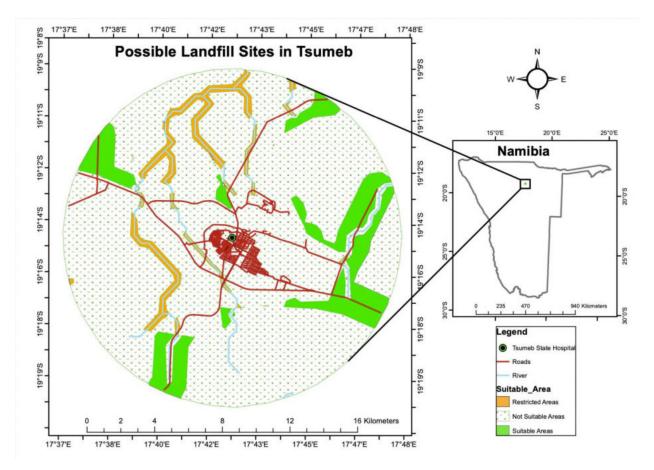


Figure 7: GIS Multicriteria Site Selection Method

17. SITE SELECTION & ANALYSIS

17.1. Topography and Hydrology

The Tsumeb town forms part of the Otavi Mountain land which has been classified into Mountain Savanna and Karstveld (Ministry of Environment and Tourism, 2004). There are no major river systems in the Tsumeb region. However, there is only one permanent stream known as Jordan Creek, which springs south of Tsumeb and terminates in a swampy delta area north of town (Kribek et al., 2005).

- Surface water: There are no natural water sources within the proposed site.
- Groundwater quality on and beyond the proposed site is related to both current and historical impacts from old mines and smelter activities. It is not expected that the proposed activity will lead to any measurable cumulative contribution to the current groundwater quality impacts.

17.2. Ecological Environment

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Based on the findings of this Scoping report, it is not expected that the proposed development of the new landfill facility will lead to any measurable cumulative contribution to the ecological environment (i.e., without mitigation measures). It is also anticipated that, with the implementation of the prescribed mitigation measures in the EMP, any possible cumulative negative impact related to landfill operations would be reduced to a great extent.

17.3. Geology and Soil

There are 105 commercial farms around Tsumeb. The area consists largely of rolling hills covered in thorn bush. Tsumeb falls under the dry woodland, savanna vegetation zone. The soil around Tsumeb varies in quality from very fertile red loam through black turf to chalky clay and loam. The district is thus suitable for intensified farming and crop production. There is an abundance of groundwater and regular rainfall in the summer months. Irrigation makes the area even more productive. Farmers in the area grow citrus fruits with much success. The main crops grown are maize, sorghum , and sunflowers. Cattle farming is also widespread.

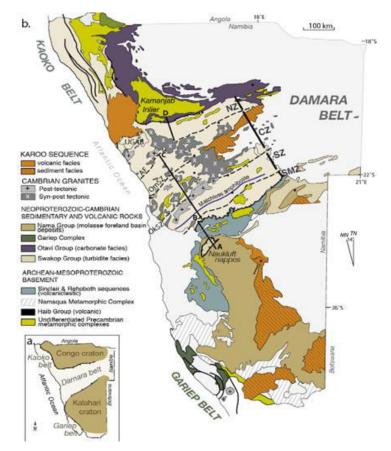


Figure 8: Geology Map

Tsumeb belongs to the world's most prolific mineralogical sites. The minerals from Tsumeb are unsurpassed in variety and quality of form. At least 170 mineral species have been cataloged, 20 minerals are found nowhere else. The concentration of ingredients for Tsumeb mineral formations originates in a sulfide deposit rich in many metals. A non-arid environment plentiful in oxygen-rich groundwater contributed to leaching and re-deposition of these elements as new minerals, sometimes in crystalline formations.

17.4. Flora and Fauna

A diverse assemblage of plants is found in the Karstveld because of the variety of topography and soil in the landscape (Mendelsohn *et al.,* 2002). Dominant woody plants are *Catophractes alexandri, Terminalia prunioides, Acacia* species and Marula tree *Sclerocarya birrea*.



Figure 9& 10: Marula tree Sclerocarya birrea.



Figure 11: Acacia species

According to Mendelsohn *et al.* (2002a), a total of 658 species of birds have been recorded in Namibia, and of these, 201 -230 bird species are found around Tsumeb. There are over 71 reptile species and 76 mammal species around The Tsumeb area Mendelsohn *et al.*, 2002a). the following mammalian species may occur around the Tsumeb area; kudu, steenbok, damara dik-dik, hyena, wild cat, and other small predators (Geo-Consult, 1996).

In summary, there is low species diversity and richness at the Abattoir Hill Site (the proposed area from the new landfill site) which is due to the high abundance of the *Terminalia prunioides* Species which is encroaching in this area. Differences in species composition are attributed to pollution from smelter plants and disturbance. Tree density at Abattoir Hill is low as compared to other sides due to tree clearance. However, grass cover is significantly higher, and this is attributed to the removal of trees.

17.5. Archaeological Resources

The proposed landfill site does not cause the loss of artifacts of historical/ importance due to construction and related activities. Construction, clearing, and related activities could not result in the loss or damage of buried or surface artifacts of potential historical importance. Given the above, it is not anticipated that any significant loss or damage to historical resources will result from the development of the proposed landfill.

17.6. Safety and Health

Personnel involved in transporting and handling waste at collection, transfer, and landfill sites can encounter different health and safety hazards. These may include exposure to biological hazards (bacteria, viruses, fungi, and other microorganisms), chemical hazards that may include various chemical disposals such as dust and others, physical hazards such as noise, weather factors cold and hot weather, and mechanical hazards. These hazards are preventable by taking the required safety and health measures.

18. PREVENTION OF ILLEGAL DUMPING

It is possible that there will be some individuals and private companies that may attempt to dispose of their waste and stray animals may also enter the closed dumpsite. The following mitigation controls must be applied.

Signage shall be installed at the entrance(s) prohibiting open burning of fires, people squatting, and dumping of waste.

36 Fencing will be installed around the dumpsite to enclose the area and prevent unauthorized entry to the site.



Figure 12: Illegal Dumping at Dumpsite Entrance

19. BASELINE POLLUTION & ENVIRONMENTAL RISK ASSESSMENT

Based on the potential environmental impacts (Table 6) identified during the screening assessment, a risk assessment was undertaken as part of the Environmental Assessment (EA) to reflect the planned activity's operations. Given that landfill is listed as activities under the Environmental Management Act (EMA), suitable environmental controls have been identified and will be implemented and monitored continuously. Environmental Risk assessment is a tool used to identify and define hazards (possible sources of harm) to the environment in other words it is a process for evaluating how likely it is that the environment may be impacted because of exposure to one or more environmental stressors.

37 Table 8: Potential Environmental Impacts Identified

Risk/Hazard	Environmental risk	Likelihood of occurrence		
Air quality (dust & odor)	Emission of air pollutants and odor above the allowable standards.	Low levels of risk due to the large buffer distance between the landfill facility and the sensitive receptors.		
Surface water	Contamination of surface water	Possible with control measures, but unlikely due approved engineering controls to manage the facility.		
Noise	Increased noise impacts above the allowable limits. Impacts on the local community.	Rare due to the large buffer distance between the landfill facility and the sensitive receiver.		
Pest, disease and agriculture related impacts	Introduction of pests and the spread of diseases as a result of the proposed development.	Possible without control measures, however unlikely due to approved operational management measures.		

Socio economic	Negative impact on the existing social conditions and the economic vitality of Tsumeb town if left unattended.	Rare as the project will generate additional employment demand, while amenity impact is low.		
Traffic and transport	Significant impacts on local community, impacting levels of service and traffic flow.	Rare due to the relatively low level of truck movement.		
Hazard and risk	Increased risk to human health and the environment from the proposed development, especially from dangerous material and gases.	Rare as hazardous substances may not be received at the landfill facility.		
Cumulative impacts	Possible cumulative impacts include noise air quality and odor, surface water, groundwater, and traffic	Possible with adequate control measures and management techniques.		

- The assessment criteria ensures that a comprehensive assessment of potential is undertaken to determine the overall impacts significance. The following criteria should be taken into consideration:
 - The nature of impact i.e., positive, negative, direct, indirect:
 - The extent and location of the impact:
 - The duration of the impact i.e., short term, long term, intermittent or continuous:
 - The magnitude/intensity of the impact occurring:
 - The extent to which the impact can be reversed:
 - The degree to which an impact may cause irreplaceable loss of a resource:
 - The cumulative impacts:
 - The mitigatory of potential impacts; and
 - The significance of the impact on local, regional, or global level.

Mitigation measures should subsequently be identified and recommended for all impacts to reduce the overall impact significantly to an acceptable level, where applicable. Mitigation measures should aim to address the following:

- More environmentally sound designs, concepts, layouts, technologies, etc., are investigated and implemented, if feasible:
- Environmental benefits of proposed activity are enhanced:
- Negative impacts are avoided, minimized, or enhanced; and
- Residual negative impacts are within acceptable levels.

20. PUBLIC PARTICIPATION

40

The principle of the Environmental Management Act of 2007 along with the EIA Regulations of 6 February 2012, is to provide for a sufficient and transparent process to share information regarding a proposed project and to allow the Interested and Affected Parties to comment and ensure that all concerns are identified and included throughout the decision-making process.

Notices appeared in the Namibian and the New Era Newspaper. See attached copies of newspaper notices to this scoping report. Other notices were displayed on-site and on the Municipal Notice Board of Tsumeb Municipality. No objectives or comments on the proposed activity were observed or received.



Figure 13: Public Meeting in Tsumeb

20.1. Objectives of the Public Participation Process

The public participation process is designed to offer enough, accessible, and fair platforms to share or to include the affected and interested parties in information about the project. The process must allow those issues of concern to benefit both parties and be addressed fairly throughout the process. It also should verify that these issues have been captured. All issues should be verified by the technical investigations. Comments and issues raised must be included in the EIA report.

20.2. Announcing the Opportunity to Participate

The opportunity for stakeholders to participate in the EIA was announced as follows:

• A3 posters were placed on noticeboards at the following places: Tsumeb Municipality, onsite, and shopping mall.

- Background information document (BID) was distributed to stakeholders.
- Newspaper advertisements were placed in the following newspaper (see annexure attached).
- Namibian Newspaper 09,11,15, 18 November 2021.
- New Era 09,11, 15, 18 November 2021.





Figure 14: Public Notice Board

Announcement for report availability

The availability of the draft report was announced by way of:

- All initial contact and public consultative meetings with stakeholders.
- All initial calls for registration as Interested and affected parties in newspaper advertisements.

Distribution of draft report

The report was distributed for comment as follows:

- A copy was issued to the Health Department, Tsumeb Municipality.
- Posted on <u>www.smdynamic.org</u> website.
- MEFT ECC application portal

20.3. Stakeholder Briefing and Community Consultation

42

A meeting was held on the 30th of November 2021 and the attendance register was distributed and only one person attended. No comments or issues were raised at this meeting.

Another follow-up communication was shared in March, April, May, and June 2023 with the key stakeholders (see attached document), and no objections were raised.

20.4. Raised Issues for Investigation by EIA Specialists

Stakeholders had the opportunity to raise issues either in writing, by telephone, or by email, during the meeting held on 30 November 2021. To date, no issues have been received.

20.5. Review of the Draft Scoping Report and Issues and Response Report

Stakeholders were given two months to comment and share their concerns so they could be captured in this final Scoping Report. Stakeholders had an opportunity to verify information in the first draft and raise further issues and comments on any aspects of their concerns. A period for comment lapsed without any comments from them.

20.6. Final Scoping Report and Issues and Responses

The final Scoping Report was prepared at the end of the comment period end of 21 December 2021. No comments from stakeholders were registered.

20.7. Ongoing Progress Report

As the process progressed, all stakeholders who attended the meeting were added to the distribution list and received personalized letters. These will report on progress to date, thank those who attended the public consultation meeting, and outline the next step in the process.

21. SOCIAL CONSIDERATIONS

At a landfill, you will often see unauthorized people roaming around the tipping face. Those people are called waste-pickers who collect recyclables or valuable materials. They sometimes disrupt the landfill operation and vandalize the landfill facility if you try to remove them from the landfill area without their consent. It has become more and more important to consider the social aspect of solid waste management. Indeed, waste-pickers are a diligent workforce from the standpoint of recycling waste. It is not quite a good solution to remove them from the circle of solid waste management. Rather, you will be better off if you can come up with an idea to keep them in the system of waste management. Such an idea may be employing them as registered landfill workers, setting up a separate waste segregation point, or providing training for other skills, etc.

22. RECOMMENDATION

This section highlights key considerations that should be addressed in the waste management practices of the Tsumeb Municipality.

- I. To protect the environment and to assure better public health and safety, the current dumpsite needs to be closed and replaced by a controlled landfill facility and complimented with other waste disposal technologies and methods.
- II. The engineering designs for the new landfill site/facility must incorporate all details of the EIA and EMP.
- **III.** An appropriate weighing method/facility must be formalized and commissioned to record the type and volume of waste received.
- **IV.** Data management should be undertaken in terms of the relevant regulations, norms, and standards.
- V. No open-air burning of waste must be allowed in the old or new waste facilities. If burning will be required, the construction process for a proper incinerator facility must be undertaken by EMA requirements.

It is recommended that a standard Environmental Management Plan (EMP) be adopted for the method section to ensure that the appropriate information is presented consistently and accurately to allow a simplified interpretation and implementation. A tabular format may be applicable. Finally, SM Dynamic recommends that the new landfill should be operated together with the recommendation for the closure plan.

23. CONCLUSION

In terms of Environmental Management No. 7 of 2007, SM Dynamic undertook an Environmental Assessment and prepared an Environmental Management Plan (EMP) for the new proposed landfill site in Tsumeb. An Environmental Management Plan was designed to eliminate and manage potential impacts and to guide both the construction and operational phases of the new proposed landfill establishment. It must be updated regularly to address the environmental challenges as they arise.

The process of site selection was undertaken and it entails a process of eliminating the unsuitable sites using the two-stage, multicriteria evaluation method. In the first stage, to find a suitable site, GIS digital map overlay techniques were used. Different siting restrictions were studied, and numerical and qualitative criteria were applied in an explanatory examination of the study area. The resulting alternative sites were evaluated using multicriteria evaluation methods. In the

second stage, quality of life indicators that represent economic efficiency, and environmental and technical economic criteria were applied to identify the most preferred alternative.

Choosing a suitable location for landfills depends on several factors and is a complicated procedure. The selection method revealed that Portion 79 (a portion of portion B) is suitable for the new landfill site. The proposed landfill development on the identified site proposal will have no significant impact on the physical environment in a short to long-term period at both phases of the project (construction and operational phases). However, the SM Dynamic consultant strongly recommends a full implementation of the EMP to all parties involved in this project. Continuous monitoring of project activities will assist to better manage these potential impacts.

The consultants thus recommend the DEA's office to grant an Environmental Clearance Certificate to Tsumeb Municipality as the municipality has been operating illegally since 2020 on the old dumpsite that has been decommissioned.

ANNEX A: COMPLIANCE ORDER



REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

Tel: (00 264) 61 284 2111 Fax: (00 264) 61 232 057

E-mail: salmo.djuulume@met.gov.na Enquiries: Mr. Salmo Djuulume Cnr Robert Mugabe & Dr Kenneth Kaunda Street Private Bag 13306 Windhoek Namibia

16 August 2021

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Ms. Karolina Damaseb Chief Executive Officer Tsumeb Town Council P.O. Box 275 Tsumeb, Namibia

Dear Ms. Damaseb

SUBJECT: COMPLIANCE ORDER FOR ILLEGAL DUMPING OF WASTE AND INAPPROPRIATE MANAGEMENT OF WASTE NEAR KUVUKI LAND, TSUMEB TOWN COUNCIL

The above subject has a reference.

Kindly, note that your town council has been issued an extension period to conduct a full Environmental Impact Assessment together with an Environmental Management Plan for submission to this Ministry before the 30 September 2021.

Yours sincerely, .11 ALIG 2021 Timoteus Mufeti ENVIRONMENTAL COMMISSIONER



All official correspondence must be addressed to the Executive Director

ANNEX B: APPOINTMENT LETTER



Ref.:



TSUMEB MUNICIPALITY

Private Bag 2012

Tsumeb

Namibia

OFFICE OF THE CHIEF EXECUTIVE

Tel.: +264 (0)67 221056/7/8 Fax.: +264 (0)67 221464/221067

September 29th. 2021

SM DYNAMICS INVESTMENT CC P.O.BOX 8387 Ocean View Namibia

Dear Sir/Madam

REF: APPOINTMENT OF SM DYNAMICS INVESTMENT CC FOR A FULL ENVIRONMENTAL IMPACT ASSESSMENT STUDY ON CURRENT TSUMEB WASTE SITE AS WELL AS ON THE NEW ENVISAGED WASTE SITE OF TSUMEB MUNICIPALITY

The Tsumeb Municipality hereby further appoints SM DYNAMIC INVESTMENT CC to conduct a Full Environmental Impact Assessment Study on the current Tsumeb Waste Site as well as on the New Envisaged Waste Site after adopting the Environmental Screening Report as per Council Resolution (C77/08/21) held on 31st August 2021 during the Ordinary Monthly Municipal Council Meeting.

The Council Resolution (C77/08/21) reads as follows;

- a) THAT Council approve the Waste Site Screening report & Technical Feasibility Study which is to be executed by SM Dynamic Environmental Consultants;
- b) THAT Council approve that the closure as well as the rehabilitation be done simultaneously;
- c) THAT feasibility study of the new land fill site may only commence upon the acceptance/approval of the site;
- d) THAT the Commissioner of the Ministry of Environment and Tourism be informed that the period for this project will be approximately three (3)months;
 It is further resolved that the Health Manager provide regular reports on the progress of the project.

The Tsumeb Municipal Council further informs you that this is a Capital Budget Project, thus as soon as the line minister approves the Council's budget will you be informed to proceed.

We look forward to be working with your organization.

Yours sincerely

Monique Muturi

ACTING CHIEF EXECUTIVE OFFICER

MM/gek

<u>Vision:</u> "To be a well - Managed Modern City Offering Diverse Services and Opportunities to its Community and the Town of Choice in the Oshikoto Region for investors and Visitors"

ANNEX B: DEED OF DONATION



OUR REF : MC/tjm/S21251 11 August 2021

The Directors
ONGOPOLO MINING LIMITED
TSUMEB
By email to
Cc
<u>hans.georg.nolte@gmail.com</u>
mmuturi@tsumeb.org.na

Dear Sirs,

RE: DONATION TRANSFER: ONGOPOLO MINING LIMITED / MUNICIPALITY OF TSUMEB

PROPERTY: "UPPER LEVELS"

We refer to the Deed of Donation entered into between the parties for the "Upper Levels" land and the Municipal Rubbish Dump.

We confirm that our client Ongopolo Mining has now obtained the Title Deed for the "Upper Levels" land, namely Portion 79 (a Portion of Portion B) of the Farm Town of Tsumeb and has instructed us to attend to the transfer of the land to you and that we will attend to this now.

Th Municipal Rubbish Dump falls within Portion 49 of Farm Tsumeb. This land cannot be transferred to you yet, as the subdivision must still be finalised.

Yours faithfully, MARINDA COLEMAN ATTORNEYS

COLEMAN, M. HVIS

🦂 Marinda Coleman Attorneys 🐓

10 Dr AB May Str. P.O.Box 325, Windhoek, Namibio Tel: (+264) 61 444 400 info@marindocolemain.com

Atomeys, Natories and Conveyance's Matinda Coleman B A. Law (Siell) U.B (UCT) Authorized and regulated by the Law Society of Namibia

ANNEX B: NEWSPAPER ADVERTISEMENT

18 KUNDANA

Thursday 11 November 2021 (NEW ERA

Omafumbiko gaanona yosikola ga ningwa moNiger

ya si moshiponga shomulilo koshilando Maradi, shili kuumbugantu gwaNiger oga ningwa ohela. Elaka iyomundilo oiya kwa

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Epangelo obya kala noku pesea umarna, kwa talika kutya itali longo shagwanana oku kaleka po egammo lyaanona noku kelala

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 Ominina yunkala subivita propublication international propublication international propublication propublicati

KAMANJAB VILLAGE COUNCIL

INVITATION FOR BIDS

PROCUREMENT MANAGEMENT UNIT

CALL FOR EXPRESSION OF INTEREST (DOI) PROCUREMENT REFERENCE NUMBER: DOI/NEP/XVC /007/2021 SETTING UP (25TABLISHENT OF CONSTRUCTION MATERIALS-PRODUCTS FACTORY AND SUPPLY OF CONSTRUCTION PRODUCTS TO KAMANJAR VILLAGE COUNCIL 2022-2030

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49

Closing date: 19 November 2021 рис

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Women micro entrepreneurs certified

+ THANTE MAHALIE

THE gender ministry trained women in the baics of entroperatorship last week, in an effort to break the spell of dependency, encourage the registration of formal businesses, as well as participation in tenders.

an participation in moders. This was done through the ministry's Accel-eration of Women-Awened Micro-Enterprises (AWOME) programme, through its partnership with the United Nations and the De Beers

Coop of Companies. Explaining its mandate, executive direc-tor in the maintry Eisther Loneponis says the programme provides comprehensive support (Bipa), Social Security, the Ministry of Finance and other relevant local authorities. This earlies on the participate in the public Susiness (IYB).

This package is further complemented by coaching aimed at improving women's busi-

The IVB training package consists of six urss of manuals, including: planning for your siness, costing, boying, stock control, record productivity," says Lusepani.

The programme is designed to provide women micro entrepreneurs with the ability to grow their businesses through different aspects of business and life skills training, as well as increase the capacity of Namibias women's business associations, says Luscouri.

Programme trainer Anantasia Shiviya says trainen is the AWOME programme mobilised themselves to train women in their various

procurement process in order to reap the gen-eral benefits of business registration," the says. "It is important to note that the AWOME Nambia programme is expanding in terms of training packages. Our trainers have been capacitated to deliver training in other mod-ules such as, the Generate Your Banisess Idea keeping, marketing, an well as people and (GYB) and Start Your Business (SYB) pack-

ages," she says.

"The programme will be in a position to deliver training and support to entrepresents whose beginesses are at various stages in 2022 In 2019, the provident of the African Develproest Bark, Akinwami Adesina, said smart nations lowest in women, as "women are more hunkable"

page 12.

The world's historic snuot toward curbing carbon emissions is likely to spur

unprecedented demand for some of the most crucial metals used to

generate and store renew

able energy in a net-zero emissions by 2050 sce-nario. A resulting surge in

prices for materials, such as cobalt and nickel, would bring boom times to some economies, that are the

biggest exporters - but searing costs could last through the end of this decade and could derail

or delay the energy transi-tion itself.

See full opinion on

Photo: Unaplash

He quoted available data suggesting that the African continent has a US\$42 billion financing gap between men and women, leaving 70% of women excluded financially

Advisor and despite the fact that women are baskable, and are the majority of farmers in Africa, they face a financing gap of close to US\$16 billion (N\$340 billion).

The back's president added that 90% of women pay back their loans, "yet, there exists globally close to US\$1.5 trillion (N\$22 trillion) financing gap for women-led small and medium sized esempsises."

"Smart reations [ought to] invest in women." Re and

- Enally shanty@uambian.com.nat

Stock shortages lower new vehicle sales

+ MATTHEW DLAMINI

A TOTAL of 714 new vehicles accounting for 49,9% and 41,3% of sales/daring October. were sold in Namibia during the month of October 2021, compared to 767 sold in the prior month and 561 sold a year age. This is according to figures Si-to 35 units," said Simonia Storm.

monis Storm Securities obtained from the National Association of Automobile Manufacturers South Africa and released on Friday. "Vehicle sales increased by

27,5% y/y and decreased by 6,9% m/m in Ocseber 2021," said Kinhonia

18 to 22 units.

available.

Namibia, of which the top five brands accounted for 71,5% (5.673 wehicles).

Year-to-dute, Toyota (37%), and delayed delivery times for Volkawagen (15%), Ford (2%), imported whiches could poten-Nissan (7%) and KIA (5%) con-tinue to dominate the local vehicle tially also weigh on instalment credit uptake by both individual multit in terms of market share. and corporate customers. 70 years of production in South three months The annual increase was mainly According to Simonis, Toyota Africa, where the first vehicle to and 2% on a driven by increased porchases of — Japan's biggest carmaker – has roll off the Ulterhage production during 2021

passenger and light commercial car global production for November by as much as 15% (between 100 000 and 150 000 cars), with "During October, extra-heavy onumercial vehicles saw the company representatives blaming the ongoing global shortage of farerst annual increase in vehicle microchips used in the production les rising by 75,0% y/y from 20 of vehicles. Toyota cut production in Sep-

The report added that sales of tember and Detober as well. The report and whicks rose "Component morages among light commercial vehicles for from Covid-19 infections among by 35.9% ply from 217 to 295 from Covid-19 infections among while naminger vehicles factory staffand/ockdown-related vg styre py some 217 to 270 from Cord units, while passenger vehicles factory suff roor 19.5% ty/f from 208 to 356 restriction units and mediate commercial Vietnam, v vehicles rose by 22.2% syl from production? (34) 57 articles.

Vietnam, which lowered their "In our report last month, we A total (of 7 935 vehicles Local dealesthips indicated have been sold year-to-date in that vehicle sales would be sighas seen an increase in its back-

log from 300 to 350 vehicles. In nificantly higher if only stock was other words, customers who have The non-availability of stock paid deposits are still waiting for their new cars to be delivered in Namibia since early this year." said Simonis Storm

In 2021, Volkswagen celebrates

line was a Beetle in 1951. Similar, to other brands globally, the manufacturing plant in Uneshape in experiencing a production backlog, implicating our local dealerships in Namibia,"

and Simonia. Imports of Vilkawagen models are delayed due to the shortage of cargo ships and containers, leading to local dealerships taking a cuthuck on their allocated orders. Market expectations are that entrained supply of new vehi cles will remain uncharged until mid-next year.

Dealerships with a short supply of most model ranges for both senger and co ecial ranges have lost a market share, as some impatient customers take what is available elsewhere instead of

waiting for imports to arrive. Interns of pricing, Volkswagen has seen price increases every 70 years of production in South three membra of between 1,5% Africa, where the first vehicle to and 2% on average in Stamibia



The Management Tip Learning Should Be a **Daily Practice**

NO matter what industry you're in or how long you've been in it, the ability to learn in 100.00 Hide faiture

It's not as simple as acquiring knowledge though, rather it's the regular practice of trying out new things and seeing the world in new ways.

Conduct experiments as part of your daily work, whether it's using a new productivity tool or trying out a new approach to meetings. Keep a log where you track the experiments you're running and reflect on what you're learning along the way. You might also look for opportunities to

learn from others. Set a goal of having one 'curiosity coffee' each month, virtually or in person, with someone you haven't met before. This might be someone in a differ-ent department who will help you view your organisation through a new less or someone in your profession at another company who could broaden your knowledge.

You can also make learning a team activity. Try a weekly or monthly skill's swap, where people can share a skill they're happy to help others learn

*This tip is adapted from 'Make Learning a Part of Se ur Daily Routine', by Helen Tapper and Sarah Ellis.



of the Environmental Management Act (No. 7 of 2007) and the Environmental Inspect Accessed Regulations (GN 30 of 6 Felimany 2013) for the ingulations (GN allowing activity)

PROJECT DESCRIPTION: New Proposed Landhil Sile PROJECT LOCATION: Tournels Town PROPONENT: Tournels Municipality Public Meeting: Date 30 November 2021 Timpi

15:00 and Contra

Environmental Assessment I Dynamic Environmental Core and Proctility iner (EAP): SM

REGISTRATION OF IBAPS AND SUBMISSION OF COMMENTS:

All Interested & Affected Panties are hereby invited All meanings a Anoches Parties are terrely instead to register and subork their comments, concerns or questions in writing or request for Background Information Document via Timal information genalization on informationation on 015 1441000 on or before 3* December 2021.



Progre... The avoident scene where Denis Passesi Kashuma (19) diad while he tried to run across the road on Friday after allegedly shalling a backet of vethick from a marby ha

7 die on Erongo roads in two days

Eveline de Klerk

MALV25 BAY - Erongo police have called on residents and visitors to previou the region's roads after seven people died in two days in two separate accidents.

Impector flam Shapemin on Saturday and four-occupants of naven-seater died on Friday coming near Usakus when the vehicle collided with a double-cab lauru

He explained that the seven-seater with seven occupants was travelling from Windheek to Walvia flay when they collided with the pick-up of two Bratilian nationals who were travelling

frees Arandia towards Uszkon, "Four occupants of the seven seater, including the driver, died on the spot. The other three occupants mutained serious injuries and were taken to boopital in Wirdhook for treatment," he added.

The Brazilians custatured slight interior.

Meanwhile, two people also died on Thursday when the driver of another anven-seater lost control over the vehicle schen a rear tyre burst between Karibils and Okahandja,

"One passenger died at the scene, while the second passenger passed away to an ambulance on the way to Witdbeek for treatment. The driver is in a critical

when two cases he is involved in

He has to wait for 11 more weeks to argue

cummus Procedure Act (CPA). Ngbipurus was also before Judge Shalimana Uebele in the High Court, fighting to be released on bail, pending the finalization of the multi-million-doltae Fishest bribery scandal. That

matter was also postponed on Friday to run from 24 to 28 January, 31 January to § February and 21 to 25 February 2022.

According to Nghipunya's affidavit, he was hoping the constitutionality challenge would be finalised before his

lition, and is re ving treatment in the Katutura State Hospital. The deceased have been identified as

Elabe Titus (29) and Selma Kalimbo (47)?

The seventh person died on Priday morning when he allegedly grabbed a bucket of vetkoek from a house in Knisebroond and tried to run across the road to Narraville.

He was hit by an NDF vehicle. We can analyse information in these accidents, including the one in which a promoniset his life in which is the presention of the life in which is the mostaing. The statistics also reflect that must of these persons who lost their lifes were poung people. Conversely, who were young people. Conversely, we have observed a lust trend of drunkee drivers

arrested on our roads, part Walvis Bay and Swalcopmund," Shapwittha stated

He observed that traffic volumes are expected to increase as the festive season

approaches "We are receiveding all mad users, laclading young drivers, to exercise caution, exhibit a sense of responsibility. and to drive alert. Our coads abouid, as they are intended for, serve as a means to take us all to our destinations safely This is possible when we act responsibly through strict compliance with the rules on the roads, driving within the speed limit, emaring vehicle fitness at all times, and driving safely," the officer appealed.



-6 S.M.DYNAMIC PUBLIC NOTICE FOR ENVIRONMENTAL IMPRO & CALL FOR PUBLIC PARTICIPATIO

(4) Taylor Mechanismutul Consultation benday given editors in all potentially intercented and Albertal Partice (SIAAU) that a augustation with the model with the Commentational Communities of the editors of the Editors and the Commentational Communities of the based of the Editors and the Commentation from the Commentation to the Commentational Messagement from the Edit of the Inter-tional Commentation of the Commentation of the Inter-tional Commentation of the Intertional Commentation of the Inter-tional Commentation of the Intertional Commentation of t encental inglativ Associated Register

PROJECT DESCRIPTION Non T NUMER LOOKING THEM

PEOPORENT Turnels Municipality

Public Meeting: Radio 10 Summer 2021

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Appendiation of Islam-Antonio Costantification of Contractions, Al Interested & Alfordia Parities are function or the Islaming and Laboral they contracting, speciately or quantitation in uniting or ex the designment information Descentary of Article for the type and following to provide a strategy or require subsective and areas or information and the second strategy of the second str

sucher him for h section 61 in the CPA, which gives the court authority to refase buil to accused persons on grounds of the administration of justice or public interest.

or public internet. But judge Theorems Manshu relayed the view of Judge-President Petrus Damaseb, who had and the constitutionality challenge should be heard by a full bench of judges. This case was thus postponed until 31 January 2022.

In his application, Nghipunya is socking a review and setting aside of a section in the CPA containing those words, declaring it unconstitutional, noll and void, and of so force and effect in law.

According to him, the words unduly place an accessionable limitation to his rights in Articles 7, 19, 11, 12, 22, 24 and 25 of the Namibus Constitution, and they exceed the limits of a constitutionally compliant law. Nghipunya also wants the court to review and set uside section 61 in the CPA. The State has indicated it will oppose the application.

Nghipunya is in police custody following his arrest in February 2020 on charges of funal, contravening the Anti-Corruption Act

fraud, contrassening the Anti-Corruption Act-and corresponding on office for gratification, as well as money landerring. The is charged alongside former fishering minister Bernhand Taus, former fishering Aniet Management Namibia managing directore Jones Hautikullup. Isawi sun 'n-Isw Tannon Hausikulipi and Pises Mwettelub. The consensition is allocation Schemenes.

The prosecution is alleging Nghipurya, alongside Ensu, Shanghala and James ured their offices or positions in a public body to obtain gratification and gain millions puid to them or entities of their choice between August 2014 and December 2019. He has since denied the allegation

mamakab@nepc.com.ma



another wave of Covid-19 is to come. He said during the first and second quarters of 2021, Namibials accounts:

environment was confronted by

well as the Covid-19 pandemic that

serona macrosconomic shocks as

said the pundemic destabilized the

economy through

disruptions in trade, toorism, production,

productively, supply

5

Oniipa CEO disputes legality of suspension

says he is not going anywhere

Obrein Simasika

The CEO of Onipa Town Council, Juniar Jakob, has refused to budge despite oring suppended by council late Turiday afternoon, arguing that the meeting at which he was relieved of duties was illegal and unrecondural.

Jakob said he will not go anywhere and as it stands, according to him, he still remains he legitimate CEO, for ther saying his alleged removal is just a plot His suspension was confirmed by mayor David Kambonde as well as management committee (MC) chairperson Jafet August, who Jskob has accuord of a witch hunt, Jskob, who has been the CEO of

Orritpa since 2016, was suspended indefinitely with all benefits to pave way for an investigation into allegations of corruption solating to an electrical servicing tender that was awarded in 2020

"Council through its special meeting resolved to surpend the CEO because the allegations levelled against him are very serious. Even though he was refusing the suspension claiming that it is being done unprocedurally But we informed him that when he signed and agreed to enter into the electrical tender agreement, it was done unprocedural, as council was not aware. The same applies when he breached the agreement to which he committed himself." said MC chairperson August. "So, he is suspended with all

benefits pending the finalisation of the investigations. Once we are done, the suspension will be lifted but we have toformed the miniater scoordingly in this regard," he However, the CEO hit back

"The mayor indicated that the uncil was indeed buildoned by the management committee and h could not do anything about it. The mayor and his present councillors. were questioned on the legality of their morting and whether the MC has legitimate power to suspend

 Φ



W. Surg long mi led. Onlipe CEO Junias Jokoh.

the CEO but could not answer. The mayor could also not answer apparently the question wheth the suspension was consented by

the minister, Jakob countered. The tender to provide electrical services was awarded to West Trading CC, which sought financial assistance from Namibia Procurement Fund (NamPro Fund).

However, NamPeo Fund had a cristation agreement with West Trading relating to a financing scheme, which was awarded to the contractor as start-up capital. This deal has since gone sour after Onlipa Town Council, under the stewardship of Jakob, breached such a contract and paid monies directly to the contractor, in contrast to NamPro Fund as initially agreed. Part of the condition was that

Onlipa Town Council pays all does to NamPro Fumfu account, which will then advance whatever remains to West Trading. It is alleged that it is the breach of that specific clause that landed Jakob in hot water as be approved

CHINA CIVIL ENGINEERING

CONSTRUCTION (NAMIBIA) (PTY LTD)

Position: Building Inspector

3-5 years of proven work experience

Qualifications and Experience lachelor degree in engineering' antidecture subling inspection lacheology or any related

funds to be paid to West Trading NamPro Fund is now suing West Trading and its director, while Onlips Town Council is listed as # de lendant.

The breach amounted to NS448 149.24 on 18 November 2020, as well as another amount of N\$200 000 advanced into West Trading account on 28 November, While the initial tender was for ever NSI

In his defence, through a 1800ed letter provided to the media Jakob said allegations levelled against him are baseless.

Instead, he accused August of spearbrading a witch-hunt and trying to taint his professional **bitup**

"This is an internal ninistrative issue that through his political immaturity went to the extent of politicizing and publicising it in the public domain - a conduct which is in contravention with the Code of Conduct of Members of Local

Consist of Members of Local Authority Councils of April 2015. "The council was advised to wait until the legal route of the case is exhausted by the court, but the MC chairpersen decided to buildone other councillors to pervise an investigation in the project of West Trading CC. I will leavy council when it's the right time. I was appointed by council with prior approval of the miniater and not by the MC chairperson," he stressed.

jakob revealed their long standing difference stema from clushes when he refused to allow councillors to use council vehicles to attend Swapo meetings, also for refailing to concede to directives of employing people from outside before according the opportunities

Others, include the extension of an internahip programme, as well as matters related to processement, including issues of land compensation and the interference into administrative operations. nimatika@nepc.com.na

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PUBLIC NOTICE FOR ENVIRONMENTIN, IMPACT ASSES & CALL FOR PUBLIC PARTICIPATION

NORCE EXECUTION TIME TO

PROST LOCKTON Turnels form

SMDYNAMIC



#. Staff Reporter

opo parliamentarian Natangwe lithete has called for speedy implementation of special econor mintel.

He said once implemented. Namibia will become independent from other economies and achieve its aspirations of

industrialization. C C O B B M I C diversification, and development, Ithetemadethiscallin

parliament on Tuesday while contributing to the mid-term budget review tabled by finance minister **Ilpumbu** Shitmi earlier this month where he announced N\$2.2 hillion has been made available for reallocation libete said the

mellum-termbudgetary review does not only facilitate the monitoring by providing a benchmark against budgetary developments over time but it also helps ensure fiscal discipline by making more apparent the impact of policies on the government balance in the coming

"I welcome the review because although the country has experienced its worst economic downturn, we continue to thrive and grow with limited revenue," he said.

He said the reallocations of funds to the health ministry to boost the country's Covid response and to the anti-posching activities as well as support the operations of Namihi Wildlife Resorts (NWR) is crucial. He said three reallocations are

cial to the recovery of the ocono



Ken., Swape MP ngwe libete Nata Mutte Ninepu

chains, and other various integration mechanisms Additionally, he id the real GDP has also contracted in the first and second quarters of 2021.

Wahrepedeteche domentic economy. Efforte said the impact of the pandetnic has sitted through trade and tourism restrictions low commodity demand, and

ternational commodity prices. He said the contraction in the economy was observed across all sectors. Furthermore, he said, Covid-19 did not only affect the domestic economy but also the trade balance, as the country continues to experience a trade defait although the total trade has improved over the two quarters.

'It is imperative that even during these trying times, we remain emiliest and continue with the implementation ogs," he said.



ENVIRONMENTAL & SOCIAL INFILIT ASSESSMENT FOR THE EXPLORATION ACTIVITIES OF BASE AND RARE METALS, DIRENDON STORE AND INTECOD ETALS OF ACLUSIVE PROSPECTING LOCIMUM TIDS, OVTED, KURENE INTECH.

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particular Communities (Phy) Lin Project Name: Exploration activities of lases and type of Dimension stores and precision metals on EPS, 7125, Ougo, No

Project Longitum EPI, PUM, Outp. Kurnetwongton



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Bring your empty NBL quart bottles & crates back to your nearest distributor and get cash.



SMDYNAMIC	BEJAAADESORGVERENGING OKAHANDJA WO 39 WWW
PUBLIC NOTICE FOR ENVIRONMENTAL MERICE ADDRESSMENT & CALL FOR PUBLIC PARTICIPATION	Abendbrieden
SN Operation's Devicemental Consultants heaving gives notice is all portunitally intervented and Affected Parties (IEAAN) that an application will be made to the Information Communication in terms of the Devicemental Management Act (No. 7 of 2017) and the Construmental Interaction Registron (ION 10 of a forbit on the Constru- tion of the Devicemental Interaction Registron (ION 10 of a forbit on the Con- Registron and submit their converse), postering of definition and submit their converse), postering of definition (ION 10 of a forbit on the Con- Registron (ION 10 of a forbit on the Con- down (ION 10 of a forbit on the Con- down (ION 10 of a forbit on the Con- sent on the ION 10 of a forbit on the Con- sent on the Con- text on the Con- text on the Consent on the Con- sent on	VACANCY We were applications for the following position <i>MANAGER Sor ADENDERFICTION INFORMATION VILLAGE ADENDERFICTION </i>
Hospitality Manager (Consulting Agency Onsulting @ Ongava - Lodge Based the Doublen:
Hospitality Manager (Parpose of The Position directs the overall Hospitality ma group and the role includes but is not limited to interaction with guests and emuning professo human capital, quality controls, deministrative delivery of a five-star guest experience and to	onsulting @ Ongava - Lodge Based

KEY STAKEHOLDER – SECOND ROUND CONSULTATIONS MARCH TO MAY 2023

Another round of consultations with stakeholders was carried out from March to May 2023, this was after the Environmental Commissioners shared his concern regarding unattendance of public meeting. The identified key stakeholder signed notice of extension of consultation phase.





Date: March 15, 2023

Dear Interested and Affected Party,

NOTICE OF EXTENSION FOR STAKEHOLDER AND AFFECTED PARTIES TO SUMBIT COMMENTS AND REGISTER FOR ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS, FOR THE OPERATION AND MANAGEMENT OF THE NEW PROPOSED LANDFILL SITE IN TSUMEB OSHIKOTO REGION.

Notice is hereby given that the Municipality of Tsumeb intends to apply for an Environmental Clearance Certificate (ECC) in terms of the Environmental Management Act No 7 of 2007 and in line with the Environmental Impact Assessment regulations (GN of 6 February 2012).

This notice serves to notify stakeholders of the extension for the second round of the stakeholder engagement period which will run for 21 days ending 10 April 2023. The first round of stakeholder engagement was held on 30 November 2021 to 21 December 2021. Interested and affected parties are encouraged to submit their comments to the details provided in this document.

The Tsumeb Municipality has commissioned the Environmental study in order to comply with the Environmental requirements as outlined in the Environmental Management Act (EMA) (Act. No.7 of 2007). This was necessitated by numerous complaints from the public about the poorly operated municipal dumpsite and associated impacts on the biophysical and social environment. In November 2020, a compliance order was served by the Office of the Environmental Commissioner to Tsumeb Municipality for illegal dumping of waste and inappropriate management of waste. The existing dumpsite requires to be closed off, rehabilitated and conduct an Environmental impact Assessment for the new site as per Part VII, VIII and IX of the Environmental Management Act of No.7 of 2007. SM Dynamic was appointed to undertake and facilitate the Environmental Scoping Study. The Consultant shall facilitate the EIA process for the site selection for the new landfill.

The purpose of this study is to extend beyond the traditional ways of disposing waste and to ensure compliance with relevant legislation. The Namibian Constitution through Article 91(c) and 95 makes provision for the overarching guidance in terms of the maintenance and sustainable use of natural



resources for the benefit of all Namibians, both present and future. The Environmental Management Act No.7 of 2007 sets principles of environmental management which includes that "the reduce, reuse, and recycling of waste must be promoted". Article 5 of the EMA provides that a person may not discard or dispose waste, except (a) at a disposal site declared or approved by the Minister or (b) in a manner or by means of facility or method and subject to such conditions as the Minister may prescribe. The construction of a waste facility, treatment of waste and disposal of waste and the import, processing, use and recycling, temporal storage, transport of waste may not be undertaken without an Environmental Clearance Certificate (ECC). The proposed new site is located on the Tsumeb Tsintsabis road within the Municipal boundaries of the Tsumeb Municipality (Latitude – 19.227703 and Longitude – 17.705859) and is 5 km. this area sits on an area of about 17 000m2 (1.7Ha) (Picture 1 below).

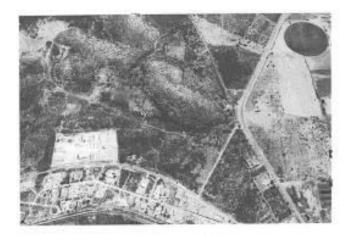


Figure 1: New Proposed Site

The proposal requires the next authorizations before it can be commissioned:

- Environmental Clearance Certification under the provisions of the Environmental Management Act NO 7 of 2007 and Environmental Impact Assessment Regulations of 6 February 2012.
- Stakeholder notification



- giving written notice to the owners and occupiers of land adjacent the site where the activity is or to be undertaken or to any alternative site.
- The local authority council, regional council, and traditional council, as the case may be, in which the site or alternative site is situated.
- Any other organ of state having jurisdiction in respect of any aspect of the activity.

SM Dynamic Environmental Consultants has been appointed as the independent environmental assessment practitioners to obtain the relevant authorizations and facilitate the ELA study. The Environmental Clearance Certification is subjected to a full Scoping and Environmental Assessment Process which will be integrated in the Environmental Management Plan for the Management and Operation of the proposed new landfill. The application is subject to public participation, and we are required to inform Interested and Affected Parties (I&APs) about the project to solicit their views, comments and recommendations on the application.

This letter serves as notification of the proposed development, and we draw your attention to the following:

- An invitation to register as an interested and Affected Party (I&AP)
- The availability of the Background Information Document (BID) for comment

Register as an I&AP

You are hereby invited to register as an I&AP on the project and to participate in the process by completing the enclosed Comments and Registration Form attached to the BID.

Background Information Document (BID) available for public comment and review

The enclosed BID provides an overview of the EIA process and invites I&APs to participate and register on the process. The first round of BID review period was 30 November 2021 to 21 December 2021 and the second round for BID review is from 20 March 2023 until 10 April 2023. Interested and affected parties can still submit their comments and concerns regarding the application until 10 April 2023.

The BID together with Comment Registration Forms, are available for public comment at the following public venues:

 Tsumeb Municipality Office, Contact the Health, and Parks Manager Mr. Glenn Kearns at +264 67 221056/7/8 or gkearns@tsumebmun.org.na



Thank you for your participation.

Regards,

MAD

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: Info@smdynamic.otg

Received By:

GRUNSettLoss Name

OWNER Capacity Signature 13/4/2000 Date





Thank you for your participation.

Regards,

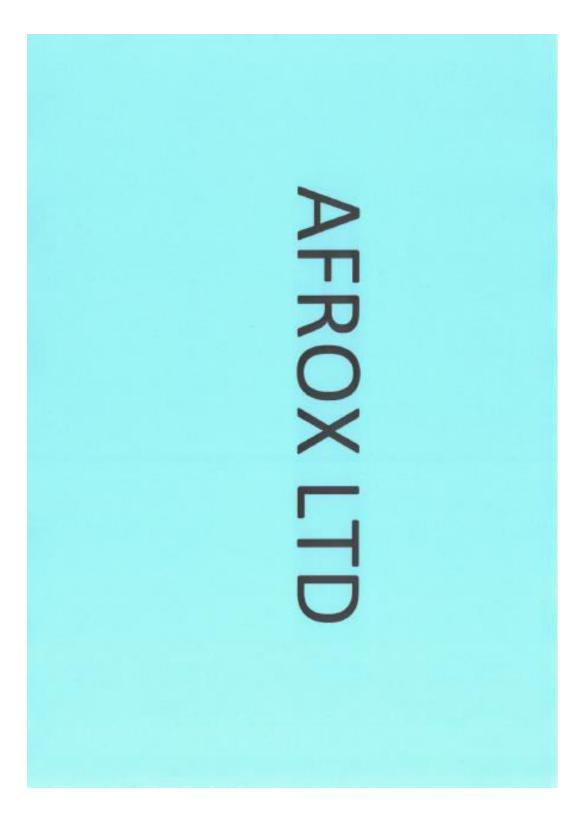
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Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: Info@smdynamic.org

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Thank you for your participation.

Regards,

MANO

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: info@smdynamic.org

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Name M. Luca -

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Thank you for your participation.

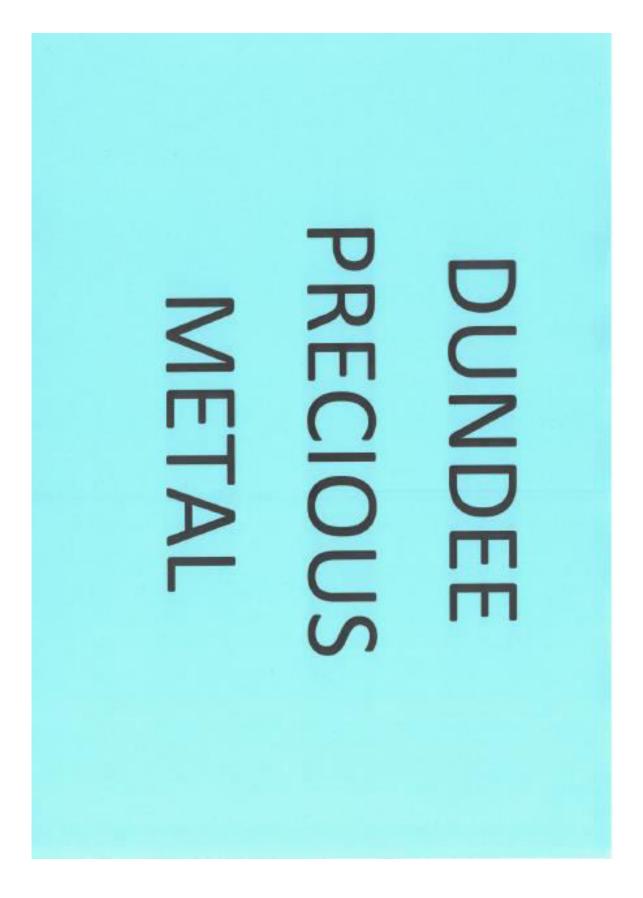
Regards,

MA-NO

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: info gismd ynamic.org

Received By:

Name LOVISA N. Lyambo copacity Control Administrative officer Signature xil 2023 3 Date





Thank you for your participation.

Regards,

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: info@smdwamic.org

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Name	sarcelona	Tsauses

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06-May-2023 Date





Thank you for your participation.

Regards,

NK+D

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: info@smdynamic.org

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Capacity_OWN&v

Signature______

Date 17/03/23

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Thank you for your participation.

Regards,

M-D

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: Infogismdynamic.org

Received By:

Name GBence

Capacity General Monay 105/23 Signature___ Date 30





Thank you for your participation.

Regards, N/- NO

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +264 85 144 3800: Fax 088 636 903 Email: info@smdynamic.org

Received By:

Name <u>(ES Julo Trading</u> Capacity <u>Owner</u>

Signature,

Date 13/04/2023

. .





Thank you for your participation.

Regards,

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M4-00

Kluivert Mwanangombe SM Dynamic Environmental Consultants Address: 5973 Southern Street, Ocean View Cell: +254 85 144 3800: Fax 088 636 903 Email: info@smdynamic.org

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