



PROPOSED CONSTRUCTION OF A TELECOMMUNICATION TOWER AT DIVUNDU - KAVANGO EAST REGION BY POWERCOM

ENVIRONMENTAL ASSESSMENT SCOPING REPORT

MEFT APPLICATION NUMBER: APP 250915006429

RELEASED: OCTOBER 2025

CONSULTANT: D&P ENGINEERING AND ENVIRONMENTAL CONSULTANT



ENVIRONMENTAL ASSESMENT FOR THE FOR THE PROPOSED TELECOMMUNICATION TOWER AT DIVUNDU KAVANGO EAST REGION

Document type: **Scoping report**

Document version: **Final for submission**

Application number: **250915006429**



Client	PowerCom (Pty) Ltd P.O. Box 40799 Ausspannplatz, Windhoek Namibia Signed.....
Lead Consultant	D&P Engineers and Environmental Consultants (Pty) Ltd. PO Box 8401, Bachbrecht, Windhoek Telephone: +264 (61) 302 672/ 081299 8444 Signed
Date of release	October 2025
Authors:	Adiel Mudzanapabwe Talent Nyungu

Table of Contents

LIST OF ACRONYMS.....	v
SUMMARY	vi
Chapter one: Introduction	1
1.1. Background of the Study.....	1
1.2. The Environmental Assessment (EA) Process	1
1.2.1 The Environmental Consultant	2
1.4. Approach to EA process	2
1.5. Project Location	3
1.6. Project Desirability or Drivers	4
1.7. Development and Site Specification	5
1.8. Terms of Reference (TOR) and Scope of Work	7
1.9. Land Ownership	7
1.10. TOWER ALTERNATIVES	8
1.10.1. The “No-go Alternative”	8
1.11. Tower Location	8
CHAPTER TWO: ENVIRONMENTAL BASELINE	10
2.0. Introduction	10
2.1. Socio-Economic status	10
2.1.1. Socio Economic benefits	10
2.1. Topography	11
2.2. Geology and Soils	11
2.3. Fauna and Flora.....	11
2.4. Climate	12
2.5. Hydrology (surface and ground water).....	12
2.6. Services and Infrastructure	13
2.6.1 Infrastructure	13
2.6.2 Roads.....	13
2.6.3. Water	13
2.6.4. Sewerage.....	13
2.6.5. Electricity.....	13

2.6.6. Solid Waste Management System	14
2.7. The potential impacts of the proposed development	14
2.8. Planning Phase	14
2.8.1. Preliminary Plans and Specifications	15
2.8. Construction.....	15
2.9. The Development Activities	15
3.0. Policy, Legal and Administrative Framework.....	16
3.1. Introduction	16
3.2. Conclusion.....	23
4.0. PUBLIC AND STAKEHOLDER CONSULTATIONS.....	24
4.1. Introduction	24
4.2. Public Participation for EIA	24
4.3. Notification of Public and Stakeholders.....	24
4.3.1. Background Information Document	24
4.3.2. Newspaper adverts	24
4.3.3. Site and Public notices	24
4.4. Public meeting	25
4.5. Public and Stakeholders comments.....	25
4.6. Conclusion.....	26
5.0 ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT IMPLEMENTATION	27
5.1. Introduction	27
5.2. Impact Assessment Methodologies.....	27
5.2.1. Checklists.....	27
5.2.2 Benefits of checklists.....	32
5.2.3. Limitations of checklists	32
5.3. Overview of Impacts Associated with the Project	32
5.3.1. Assessment of Potential Negative Impacts.....	32
5.4. Overall Site Sensitivity.....	35
5.5. Risk Analysis	37
6.0. CONCLUSION AND RECOMMENDATIONS.....	38

6.1 Conclusion and Recommendations.....	38
Reference.....	39
APPENDIX A: ENVIROMENTAL AND SOCIAL MANAGEMENT PLAN	40
APPENDIX B MAPS, SITE PLANS AND STRUCTURAL LAYOUTS	41
APPENDIX: C : PUBLIC CONSULTATION TEMPLATES.....	42
APPENDIX: D LEAD EAP CV.....	43

LIST OF ACRONYMS

TERMS	DEFINITION
BID	Background Information Document
EAP	Environmental Assessment Practitioners
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA (R)	Environmental Impact Assessment (Report)
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EMPr	Environmental Management Plan Report
GHG	Greenhouse Gasses
ISO	International Organization for Standardization
I&APs	Interested and Affected Parties
MET: DEA	Ministry of Environment and Tourism's Directorate of Environmental Affairs
NEMA	Namibia Environmental Management Act
UNFCCC	United Nations Framework Convention on Climate Change

SUMMARY

Over the years Namibia has been witnessing a swift growth in mobile communication services, driving increased local demand for the expansion of telecommunications infrastructure. PowerCom (PTY) LTD, hereafter referred to as the proponent, has identified various areas in Namibia requiring enhanced communication solutions due to population growth and increased economic activities. To address this need for improved telecommunication connectivity, PowerCom has been commissioned by its sister company, Telecom Namibia, to establish telecommunication towers across multiple locations nationwide, including one at Divundu. This initiative aims to enhance connectivity, alleviate network congestion, and promote ICT development in rural and peri-urban areas. decongest connectivity and promote ICT in rural and peri-urban environments.

Telecommunication tower and related infrastructure developments are among listed activities that may not be undertaken without an Environmental Clearance Certificate (ECC) under the Environmental Management Act (EMA) (2007) and its 2012 Environmental Impact Assessment (EIA) Regulations. The relevant listed activities as per EIA regulations are:

10.1 (g) The construction of masts of any material or type and of any height, including those used for telecommunication, broadcasting, and radio transmission.

The ENVIRONMENTAL MANAGEMENT ACT works hand in glove with other environmental Conservative legislations detailed in chapter 3.0 as POLICY, LEGAL & ADMINISTRATIVE FRAMEWORK in this report to ensure a Sustainable Project Development in The Republic of Namibia.

Chapter one: Introduction

1.1. Background of the Study

In compliance with the Environmental Management Act and Environmental Impact Assessment policy project proponent is mandated to do an Environmental and Social Impact Assessment (ESIA) and develop an Environmental and Social Management Plan (ESMP). In compliance to the Act the project proponent should appoint a competent consultant to undertake an Environmental scoping assessment report and an ESMP to be submitted to the Ministry of Environment, Forestry and Tourism (MEFT) for review. MEFT will review the reports and decide whether the Environmental and Social Management plan as part of the Environmental Assessment scoping report is adequate or not. This Environmental Assessment scoping report is submitted as a fulfilment to the Environmental Management ACT of 2007 and its regulations.

1.2. The Environmental Assessment (EA) Process

With reference to the guide of the **Environmental Management Act No 7 of 2007**, no one (including private bodies and Government bodies) can carry out any listed activity without an environmental clearance certificate. If an environmental clearance certificate is required, the Environmental Commissioner may first require an environmental assessment. In some cases, an environmental clearance certificate can be issued without an environmental assessment depending on the minister's decision.

Environmental assessments serve the following purposes:

- *Ensure that activities which may have a significant effect on the environment follow the principles of environmental management planning and development process;*
- *Analyze the possible environmental impacts of activities, and look at ways to decrease negative impacts and increase positive ones;*
- *Make sure that the environmental effects of proposed activities are given adequate consideration before they are carried out and*
- *Provide an opportunity for public participation in considering the environmental impact of a project.*

These listed activities form part of the Scope of Works of the EA and are considered in all the phases of the project.

1.2.1 The Environmental Consultant

D&P Engineers and Environmental Consultants (Pty) Ltd have been appointed by **Powercom** as an independent environmental consultant to conduct the required Environmental Assessment (ESIA) study.

By submitting this report Powercom has also subscribed to sustainable business development and environmental sensitiveness to maintain a balance in social development, economic sustenance and bio-physical environment.

1.4. Approach to EA process

The EA process was executed following the Terms of reference as highlighted by the EMA of 2007. The screening phase was done by experienced assessment team.

Powercom has Occupational Safety and Health specifications bringing into practice the Occupational Health and Safety Act. Basing on the requirements of the *Environmental Management Act (Act 7 of 2007)*. The Environmental Assessment comprise of three phases, namely:

Phase 1: Screening Phase was initiated in September 2025 with the main objective to consult with the various affected parties or Ministries/Authorities to establish their concerns and recommendations regarding a strategy for implementation. After applying the screening process sensitive issues were identified across the proposed project site assessment namely:

- ❖ Identification of affected parties;
- ❖ Mapping and
- ❖ Identification of key sensitive issues like wetlands, cultural heritage and protected ecosystems, (in the case under study none of the listed issues were applicable).

Phase 2: Scoping Phase was launched in October 2025. A review of baseline information was included for the study including information about the legislative framework, the receiving biophysical and social environment and any other information that could be used to elaborate on or substantiate the current baseline conditions. The main objective of scoping is to identify

key issues of concern that should be addressed in the assessment of the Plan and the appropriate level of detail to which they should be considered. The scoping exercise should answer the following questions:

- ❖ What are the relevant significant issues to be addressed by the EA;
- ❖ Evaluation of potential Environmental Concerns and
- ❖ Reduction or mitigation measures for potential impacts/ Environmental concerns through ESMP design.

Phase 3: Detailed Assessment Phase requires an in-depth analysis of the impacts related to the moderate to highly sensitive issues. Using the information collected during the scoping report, other literature available of the area of study and after collecting information from key informants, the primary aim will be to perform a detailed EA.

Stakeholder Consultation will be undertaken during all phases of the project to ensure a focused and effective public consultation process as required by the EMA Act and its regulations. Stakeholder consultation will form the basis of the entire EA process ensuring that all Namibians are informed and have an opportunity to participate in the process.

1.5. Project Location

Divundu Village Town is under Mukwe Constituency, Kavango East Region. It is on the south-western banks of the Kavango River in the Kavango East Region of Namibia, 200 kilometers east of Rundu. Divundu has a population of around 5,430 inhabitants and is the homestead of the local Hambukushu kings. Table 1 below shows the project site coordinates.

Table 1: Project site coordinates

Site Name	Region	Geo Reference
Divundu	Kavango East	18°06'4.13"S 21°32'54.22"E



Figure 1: Locality Map

1.6. Project Desirability or Drivers

Over the years Namibia has been witnessing a swift growth in mobile communication services, driving increased local demand for the expansion of telecommunications infrastructure. PowerCom (PTY) LTD, hereafter referred to as the proponent, has identified various areas in Namibia requiring enhanced communication solutions due to population growth and increased economic activities. To address this, PowerCom has been commissioned by its sister company, Telecom Namibia, to establish telecommunication towers across multiple locations nationwide, including one at Divundu-Kavango East region of Namibia. This initiative aims to enhance connectivity, alleviate network congestion, and promote ICT development in rural and peri-urban areas. This will as well decongest connectivity.

Tapering down to regional level, according to the latest NSA report, the population of the Kavango East Region where Divundu is located as mentioned before, will increase from 90,596, as indicated by the 2011 census, to 183,000 by 2030, representing an increase of 91,000 people. It is further stated that the number of people living in rural areas is expected to gradually shrink while those living in urban areas are projected to increase sharply by 2041.

The population of Kavango East Region has been growing steadily since the 2001 Census and indicates a population increase and annual growth rates between 2001 and 2011. The annual growth rate for Kavango Region between 2001 and 2011 was 1.0 percent. Furthermore, the annual growth rate for urban areas was 2.5 percent, which is significantly higher than that of rural areas (0.8%). At constituency level, Kavango Urban has recorded the highest growth rate of (2.2%) between the 2001 and 2011 period. The continued increase in the number of people living in urban areas without corresponding infrastructural growth results in demand overstripping the supply of goods and services. In turn, this exerts pressure on the available goods and services.

1.7. Development and Site Specification

POWERCOM (Pty) Ltd, a subsidiary of TELECOM Namibia, is spearheading a nationwide initiative to construct telecommunication towers. This effort aims to enhance internet and voice connectivity, expand the company's footprint and asset base, while providing ready-to-use infrastructure for telecommunication service providers. By targeting underserved areas with weak or no network coverage, PowerCom plans to develop several telecommunication towers across the country, including a proposed site at Divundu Village town. Refer to Appendix B for locality Map and Layout of the towers).

The telecommunication tower development will include the following:

- Construction of a 48 meters lattice tower with a footprint size of a 14m x 14m area including network support structures;
- The site is to accommodate TN Mobile service and other service providers.
- The structure will be fenced to limit public access to it and it will be electrified to prevent vandalism.

- Access to the area will be strictly controlled through a locked gate as illustrated in the figure 2 below.



Figure 2: Illustration of the proposed tower

1.8. Terms of Reference (TOR) and Scope of Work

This Environmental Scoping Assessment (ESA) was conducted in accordance with the Environmental Management Act (EMA) (No. 7 of 2007) and its 2012 Environmental Impact Assessment (EIA) Regulations. Guided by the project's Terms of Reference, the scope of work included:

- Assessing the suitability of the proposed site for tower construction and identifying alternative sites if necessary.
- Conducting the required Environmental Scoping Assessment (ESA).
- Consulting all relevant interested and affected parties (I&APs).
- Preparing an ESA report and a draft Environmental Management Plan (EMP).
- Securing an Environmental Clearance Certificate for the proposed tower.

The primary objectives of the ESA are to:

- Identify, analyse, and assess the biophysical and socio-economic impacts of the proposed activity.
- Develop management action plans, detailed in the draft EMP, to help the Proponent and/or their contractors minimize negative impacts where avoidance is not possible and enhance positive outcomes.

1.9. Land Ownership

The village council agreed that a portion of ERF 492 Divundu Extension 1 be leased to Powercom at a prescribed fee for the period of five years.

1.10. TOWER ALTERNATIVES

The EAP took time to assess the project alternatives for this site. Both technical, economical, and environmental factors including the rationale for choosing the preferred tower were considered. For this very site a 47.9 m lattice tower was chosen considering both technical, economic and environmental factors. While there may be several other types of telecommunication towers design and forms, this particular tower was selected to make sure network connectivity in the Divundu area and its surroundings is good and does not overshoot.

Below were alternatives that were considered for the proposed project in Divundu:

1.10.1. The “No-go Alternative”

The “No-go” alternative is the option of not proceeding with the activity, which typically implies a continuation of the status quo. In this case, this would mean, the status quo of the proposed site remains unchanged with poor to no network/communication signal. Should the proposed project be disapproved, the poor to no network coverage in Divundu will continue and there will be no improvement in local socio-economic development, in terms of communications services in this area. It was reported that one can go for two weeks or more without receiving an email due to lack of internet services.

Taking this into account, and the anticipated benefits that the proposed project will have on the local communities, the no-go option is not a preferred option.

1.11. Tower Location

Prior to the EIA process consultations were made with the Interested and Affected Parties and the Village Council agreed to lease portion of ERF 492 of Divundu Extension 1 for tower erection. The sites were selected looking at the network coverage and how the tower would address any network coverage issues in Divundu. The Village Council expressed their approval of the tower through a consent letter directed to Telecom (**See Appendix C**). During the EA process, the local community expressed its gratitude on the location of the tower stating that it would serve the Rukonga Vision School and school and other key services including government departments in the area.

Taking the above factors into consideration, the Environmental consultant approves the project and the proponent will ensure maximum environmental and safety performance systems are enforced during all phases of the project.

CHAPTER TWO: ENVIRONMENTAL BASELINE

2.0. Introduction

In this chapter, the findings of the EIA Team on baseline surveys, public consultation, and desk reviews are undertaken with respect to the ecology, society, economy, and geo-political setup of the proposed project area. The geological makeup and meteorology of the project site will also be discussed in this chapter to give an in-depth understanding of the project area in question.

2.1. Socio-Economic status

The socio-economic status in Divundu and the entire Kavango East region where the proposed project site is situated is characterized by Agro Marketing and Tourism industry. Large numbers of tourists are recorded to visit Divundu and its neighboring tourist's attraction areas. Attraction features like wildlife national parks, Popa falls and Okavango River which favors aquatic ecosystems contribute to a socio-economic status of Divundu. It is also a transport networking village town from Angola, Bots and Zambia and apart from that it is also Kavango East regional second administrative village town. The village town is characterized by low-income earners, rapid population growth, under development and large vast tracts of land

2.1.1. Socio Economic benefits

Despite the unavailability of serviced land has a negative impact on the economic growth and socio-economic development of the village town council. The council is dependent on physical growth of the town and the expansion of land ownership for increased revenue flows through property tax and rates. Future housing projects has the potential to generate a number of employment opportunities directly and indirectly during and after the construction phase.

More so, infrastructural development is the source of livelihood (directors and employees) of the owner(s) and partners hence such honest sources of livelihood should be encouraged and supported.

2.1. Topography

The planning area is relatively flat and lies at about 1 000 -1 200 meters above the sea level. Divundu is relatively close to the Kavango River. There are no significant hills and *the area is* relatively flat making it easy and cost effective for development.

2.2. Geology and Soils

According to The Environmental Information service Namibia, Soils in the Kavango regions are completely dominated by sand, especially fine wind-blown sands deposited as a mantle across the region during much drier times long ago. The loose sands also known as the Kalahari sand are usually as deep as one (1) meter. Apart from the sand, which generally makes up than 70% of the body of the soil, the Kavango East region also consists of less than 10% of the soil consists of clay and silt. The sand texture allows for water to drain away rapidly, leaving very little moisture at depths to which most plant roots can reach. The porous sand also holds very few nutrients, and the loose structure of sand also holds very few nutrients, and the loose structure of the sand means there is very little run-off and soil erosion.

2.3. Fauna and Flora

Vegetation type of any area is influenced by both soil type and the climate conditions of the area. The Kavango East region is home to a more diverse community of plants and animals than most other areas in Namibia. Most of the diversity in the region is linked to the variety of habitats along and near the Kavango River. The plant and wildlife especially within the conservancies or parks along the Kavango is very abundant. Along the large flood plains of the Kavango impressive woodlands and individual baobabs can be found. Amongst the abundant wildlife consists of elephant, buffalo, zebra, giraffe, and hydrophilic antelopes like Rietbok and Letchwe, not to forget crocodiles and hippopotamus.

The proposed project site is less densely vegetated. Short sparse bushes of the *Acacia* type of vegetation are witnessed by figure 3 overleaf.



Figure 3: Existing flora on site

2.4. Climate

With an annual average of 500 – 600 mm and a semi-arid terrain, it receives adequate rains compared to the rest of the country. In the sand savanna of the Kalahari Basin south of the Kavango the rainfall seeps away quickly thus hardly any surface water is found.

During the summer it experiences warm to excessive temperatures.

The frequency of strong winds starts to increase in winter and usually peaks during November, prior to the onset of the rainy season making the winter season a bit drier. Dry spells are sometimes experienced over the past decade which can be linked to climatic change.

2.5. Hydrology (surface and ground water)

According to the survey done by NSN Earth & Science Works Namibia cc, the hydrogeology of the area is characterized by both alluvial and fractured aquifers. Alluvial aquifers are found along paleo-riverbeds draining north to the northeast towards the Kavango River and consist of mainly medium grained white sand. In the study area, these aquifers are found on both sides of the Kavango River, and south of the township development area. The fractured aquifer mainly consists of weathered schist and fractured quartzite of the undifferentiated formations of the Damara Sequence.

Information based on available maps and borehole drilling records indicate that the depth of the alluvial aquifer tends to increase eastward from a depth of 14 m at Andara to 35 m at Bagani.

2.6. Services and Infrastructure

Divundu has the following services: Potable water and water reticulation system, water borne sanitation (oxidation ponds sewerage system) as well as electricity. These bulk services will be extended to all new developments in the village town.

2.6.1 Infrastructure

The provision of bulk services will be the sole responsibility of Council. However, all bulk services will be designed and constructed up to the satisfaction of the Standard Engineering regulations of Council.

2.6.2 Roads

The project site will be connected to the existing road and street network. There is an existing service earth track for the water pipeline passing near project site.

2.6.3. Water

The proposed Portion on Extension 1 will be connected to the existing bulk water service network of the Council. There is an existing borehole Northern Eastern direction of the proposed project site.

2.6.4. Sewerage

Currently Divundu village town is well serviced with oxidation ponds at which during the visit the assessment team noted that the evaporation pond was $\frac{1}{4}$ full, well lined and the pump well serviced. The existence of invasive alien reeds was noted in one of the ponds at which advice was given to clear them out.

The proposed tower will make use of portable toilets during the construction phase.

2.6.5. Electricity

The proposed tower will easily be connected to the existing electrical networks in the area. It is also proposed that the project will make use of solar energy. The use of a renewable source of power (solar energy) will be used for lighting and back up during power outages. This will help to reduce the increased demand of electricity locally and nationally.

2.6.6. Solid Waste Management System

An existing dumpsite will service the proposed development in all phases. The existing dumping site is located south west of the proposed project site approximately *ten (10)* kilo meters (km) from the proposed site. The dumpsite is underutilized due to the absence of refuse collection schedules by the local authority. Only a small percentage of Divundu residents make use of the dumping area. The key factor being the dumping site cannot be reached with residents who don't have vehicles for transportation of waste. This is resulting in illegal dumping of refuse.

2.7. The potential impacts of the proposed development

The main potential impacts of the proposed project development in all phases include the following:

1. Air pollution (Noise, dust and Vibration)
2. Landscape and Visual changes (Soils, Geology, soil erosion)
3. Ecology disturbance (Introduction of alien or exotic species, existing Flora and Fauna)
4. Socio Economic and human geography (employment creation, traffic increase)
5. Littering/ Increased Solid waste generation during construction phase (general waste)
6. Urbanization (Culture dilution, population increase, illicit dealings)
7. Occupational Safety, Health and the Environmental related issues (for construction and general workers)

Possibilities are shown for the increase of positive characteristics and the neutralization of negative impacts of the project archived through Environmental and Social Management Plan (ESMP).

2.8. Planning Phase

The planning phase will be characterized with the planning of development activities which involves site identification and surveying, drawing of the site plan, site pegging, infrastructure designing.

2.8.1. Preliminary Plans and Specifications

Attached as appendix B is the proposed lattice tower designs has detailed.

2.8. Construction

During the initial phases of the tower erection, the engineers shall coordinate with a construction team during installation of utilities. Different personnel will help to install the tower and the related infrastructure. The construction team will comprise of a team of skilled professionals, including structural engineers, project managers, and tower technicians. Other roles include regulators, who ensure compliance with safety standards, and site surveyors, who assess the location for installation.

2.9. The Development Activities

Construction activities are currently planned to commence as soon as Environmental clearance is issued, and are anticipated to last on a continuous basis. The availability of resources and natural events like weather will determine the speed of development.

The construction process involves bush clearance, trenching at the project site. Construction involves land excavation thus disturbing soil physical and chemical properties.

1. Mapping
2. Excavations
3. Erecting of structure as per designs and specifications

3.0. Policy, Legal and Administrative Framework

3.1. Introduction

Combined, policy, legal and administrative frameworks, facilitates sustainable development. Mentioned below are acts and policies that have relevance to the establishment of a tower. These pieces of legislation include the environmental Management Act of 2007, Environmental Impact Assessment Policy, Water Act and many other Occupational Health, Safety and Environmental Management Statutory instruments and legislations.

The Environmental Management Act 7 of 2007 is the principal defender to the environment aiming to:

Promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment; to establish the Sustainable Development Advisory Council; to provide for the appointment of the Environmental Commissioner and environmental officers; to provide for a process of assessment and control of activities which may have significant effects on the environment; and to provide for incidental matters.

Section 56 of the Environmental Management Act, 2007 (Act No.7 of 2007), the Minister has made the protocols for Environmental Impact Assessment as set out in the Schedule of Government Notice No. 30 (2012).

These protocols necessitate that all developments/projects that have a detrimental effect on the environment must be accompanied by an EIA Under section 27 of the Environmental Management Act, 2007 (Act No. 7 of 2007), and after following the consultative process referred to in section 44 of that Act, the Minister lists in the Annexure to the above-mentioned Schedule, activities that may not be undertaken without an environmental clearance certificate. In both the Environmental Management Act and its guidelines, all activities that may not be undertaken without an environmental clearance are listed.

The fruits of sustainable development are conducted by a comprehensive statutory framework which was used in this section. All the relevant legal instruments and prescribed procedures have been acknowledged.

Table 2: Policy, Legal and Administrative Framework

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
The Constitution of the Republic of Namibia (1990)	The articles 91(c) and 95(i) commits the state to actively promote and sustain the environmental welfare of the nation by formulating and institutionalizing policies to accomplish the sustainable objectives which include: • Guarding against overutilization of biological natural resources, • Limiting over-exploitation of non-renewable resources, • Ensuring ecosystem functionality, • Maintain biological diversity.	Through the implementation of the environmental management plan, the proposed development will be conformant to the constitution in terms of environmental management and sustainability, by bringing development in an environmentally sensitive way.
Vision 2030 and National Development Plans	Namibia's overall Development ambitions are articulated in the Nations Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high and sustained economic growth; increased income equality; and employment creation.	The proposed project is an important element in the propelling and connectivity in the country.
Environmental Assessment Policy of Namibia 1994	The Environmental Assessment Policy of Namibia requires that all projects, policies, Programmes, and plans that have detrimental effect on the environment must be accompanied by an EIA. The policy provides a definition to the term "Environment" broadly interpreted to include biophysical, social, economic, cultural, historical and political components and provides reference to the inclusion of alternatives in all projects, policies, programmes and plans.	The construction and operation of the tower will only commence after being awarded an environmental clearance certificate, thus by abiding to the requirements of the Environmental Assessment Policy of Namibia. The EIA and EMP will cater for the sustainable management of biophysical environment.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
Environmental Management Act No. 07 of 2007	The Act aims at - Promoting the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; - To provide for a process of assessment and control of projects which may have significant effects on the environment; - The Act gives legislative effect to the Environmental Impact Assessment Policy. Moreover, the act also provides procedure for adequate public participation during the environmental assessment process.	This document is compiled in a nature that project implementation is in line with the objectives of the EMA. EIA guiding procedures developed by MEFT were also used in the course of this project.
Electricity Act 4 of 2007	- Requires that any generation and or distribution complies with laws relating to health, safety and environmental standards (s 18(4)(b)) - In the event that exemption from acquiring a license is granted, the Minister may impose conditions relating to public health safety or the protection of the environment.	Obliges PowerCom to comply with all relevant provisions of the Act and its regulations when installing electrical connections to the tower.
The Atomic Energy and Radiation Protection Act, Act 5 of 2005:	Provides for the adequate protection of the environment and of people against the harmful effects of radiation by controlling and regulating the production, processing, handling, use, holding, storage, transport and disposal of radiation sources and radioactive materials, and controlling and regulating prescribed non-ionising radiation sources according to the standards set out by the ICNIRP.	To determine the “safe distance” around the site. Installation of the network transmitter will be done in accordance with the safety protocols required for non-ionizing radiation protection.
Hazardous Substances Ordinance 14 of 1974 Regulations Made In Terms Of Hazardous Substances Ordinance 14 of 1974 sections 3 and 27	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the	PowerCom will have to conform to this Act and its regulations through application for relevant licenses with the relevant bodies highlighted thereto.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
	degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith.	
Civil Aviation Act No. 74 of 1962	Gives effect to certain International Aviation Conventions and makes provision for the control, regulation, and encouragement of flying within the Republic of Namibia and for other matters incidental thereto.	Provides the regulations for setting up cellular as well as other masts structures in Namibia.
Convention on International Civil Aviation, Annex 14	Annex 14 to the Convention on International Civil Aviation. Chapter 4: Obstacle restrictions and removal Chapter 6: Visual aids and donating of obstacles	The proposed new structures may be obstacles to some aerodromes in Namibia. Those that are close to existing aerodromes need to be assessed in accordance with the document. Visual aids to the new structures to make them visible to aircraft need to be applied in accordance with this Convention.
“Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300GHz)” (April 1998 developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP))	Provides international standards and guidelines for limiting the adverse effects of non-ionising radiation on human health and well-being, and, where appropriate, provides scientifically based advice on non-ionising radiation protection including the provision of guidelines on limiting exposure.	Cell phone towers and other antenna installations are usually located on rooftops, towers, and utility poles. Cell phone towers operate at a higher power than cell phones but the radiofrequency EMF they emit is much further away from your body. This means your exposure from such antennas is usually much lower than the exposure level from using a cell phone.
Soil Conservation Act 76 of 1969	The objectives of this Act are to: • Make provisions for the combating and prevention of soil erosion, • Promote the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic.	The project will have a rather localized impact on soils and the soil through clearance for the tower platform. Soil protection measures will be employed and preservation of trees as much as possible.
Protected Areas and Wildlife Management Bill	This bill, when it comes into force, will replace the Nature Conservation Ordinance 4 of 1975. The bill recognizes that biological diversity must be maintained, and where necessary, rehabilitated and that essential ecological processes and life support systems be maintained. It protects all indigenous species and control the	Environmental recommendations and considerations on this project have ensured that the proposed activities will not fall within the boundaries of any protected area and that the project will not affect heavily endangered vegetation and animals on its site.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
	exploitation of all plants and wildlife.	
Forest Act, 2001 (Act No. 12 of 2001)	The Act gives provision for the protection of various plant species through the Ministry of Agriculture, Water and Forestry (MAWF), Directorate of Forestry).	The site has a No matured trees which will be removed to pave way for development. There is only sparsely distributed shrubs.
National Rangeland Policy and Strategy, 2012	The policy aims at enabling resource users (farmers and managers) to manage their rangeland resources in a sustainable manner and sustainable in that they are economically viable, socially acceptable, environmentally friendly and politically conducive.	This proposed project will ensure that the local community benefits both economically and socially from the project, this in line with the recently declared Harambee Prosperity Plan and NDP 4&5.
National Biodiversity Strategy and Action Plan (NBSAP2)	The action plan was operationalised in a bid to make aware the critical importance of biodiversity conservation in Namibia putting together management of matters to do with ecosystems protection, biosafety, biosystematics protection on both terrestrial and aquatic systems.	The project proponent has been advised by DPEE and recognises the need for ecosystem protection to manage the changing climatic environment.
Wetland Policy, 2004	The policy provides a platform for the conservation and wise use of wetlands, thus promoting inter-generational equity regarding wetland resource utilization. Furthermore, it facilitates the Nation's efforts to meet its commitments as a signatory to the International Convention on Wetlands (Ramsar) and other Multinational Environmental Agreements (MEA's).	In compliance to this Policy, the development will ensure a standard environmental planning such that it does not affect any wetlands within its locale through recognition of wetlands to promote the conservation and wise utilization of wetlands resources. There no wetland around the project area.
Water Resources Management Act, 2013 (Act No. 11 of 2013)	This Act provides for the management, protection, development, use and conservation of water resources. This also forms the regulation and monitoring of water resources.	The proposed development will get water from the existing water infrastructure during the construction phase.
National Heritage Act 27 of 2004	Heritage resources to be conserved in development.	During the project implementation as soon as objects of cultural and heritage interests are observed such as graves, artefacts and any other object believed to be older than 50 years, all measures will be taken to protect these objects until the National Heritage Council of Namibia have been informed, and approval to proceed with the operations granted accordingly by the Council.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979	“No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia: (a) any meteorite or fossil; or (b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any people who inhabited or visited Namibia before the year 1900 AD; or (c) any implement, ornament or structure known or commonly believed to have been used as a mace, used or erected by people referred to in paragraph (b); or (d) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or (e) any other archaeological or palaeontological finds, material or object; except under the authority of and in accordance with a permit issued under this section.	The proposed site of development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites or archeologic importance are identified, it will be the responsibility of the developer to take the required route and notify the relevant commission.
Pollution Control and Waste Management Bill	This bill has not come into force. Amongst others, the bill aims to “prevent and regulate the discharge of pollutants to the air, water and land” Of particular reference to the Project is: Section 21 “(1) Subject to sub-section (4) and section 22, no person shall cause or permit the discharge of pollutants or waste into any water or watercourse.” Section 55 “(1) No person may produce, collect, transport, sort, recover, treat, store, dispose of or otherwise manage waste in a manner that results in or creates a significant risk of harm to human health or the environment.”	To control air, water and land pollution as agitated by the Act the project proponent will ensure that the development will prevent pollution in all forms during construction and operation phases.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
Public Health Act (No. 36 of 1919)	Section 119 states that “no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	The Proponent and all its employees or contractors should ensure compliance with the provisions of these legal instruments.
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers.	
Public and Environmental Health Act No. 1 of 2015	The Act serves to protect the public from nuisance and states that no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.	The Proponent and their contractors should ensure that the project infrastructure, vehicles, equipment, and machinery are designed and operated in a way that is safe, or not injurious or dangerous to public health and that the noise which could be considered a nuisance remain at acceptable levels. The Proponent should ensure that the public as well as the environmental health is preserved and remain uncompromised.
Communications Act, 2009 (Act No. 8 of 2009)	• (10) The Authority may impose specific obligations and requirements on a licensee	As a pre requisite, telecommunication towers would require environmental clearance certificates and, in this respect, Powercom authorised this EIA to obtain such.
	• regarding to masts, towers or other facilities including requirements relating to the • environmental or aesthetic impact of such facilities;	
Communication Bill 2009	• Provide for the regulation of telecommunication activities. The bill provides licencing and enforcement of conditions, and the approval or equipment and technical standards to ensure public health and safety.	As per relevant spectrum, network equipment should be as per licenses.
Convention on Biological Diversity (CBD)	• Namibia is a signatory of the Convention on Biological Diversity and thus is obliged to conserve its biodiversity.	The project will preserve tree species on as part of their plans for greed and sustainable development.
United Nations Convection to combat Desertification	Namibia is bound to prevent excessive land degradation that may threaten livelihoods.	It will be the responsibility of the proponent to conserve vegetation on and around the area, to avoid encroachment of the desert environs in the area.

LEGISLATION/POLICY/GUIDING DOCUMENT	RELEVANT PROVISION	PROJECT IMPLICATION
Local Authorities Act No. 23 of 1992	To provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters.	Divundu Village council is the Local Authority responsible for the project site. Therefore, the council will ensure that the network tower establishment activities are in compliance with the Act and its Regulations, as relevant to the proposed project
Road Traffic and Transport Act, No. 22 of 1999	The Act provides for the establishment of the Transportation Commission of Namibia; for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, the control and regulation of road transport across Namibia's borders; and for matters incidental thereto. Should the Proponent wish to undertake activities involving road transportation or access onto existing roads, the relevant permits will be required.	Mitigation measures should be provided for since the project activities will make use of the public roads during construction phase.

3.2. Conclusion

These pieces of regulations should be observed throughout the project's life cycle. Any deviations from these policies, regulations and administrative frameworks may have catastrophic results to the environment (including man power) and the work environment. These laws bring about rational work ethics that support the protection of the environment. Strict monitoring by relevant authorities will bring about sound environmental practices. Divundu Village Council shall enforce these regulations on its area of jurisdiction and constant monitoring will be done in form of inspections and audits.

4.0. PUBLIC AND STAKEHOLDER CONSULTATIONS

4.1. Introduction

This chapter gives a brief summary of the interested, affected and stakeholders reached by the EIA team. A background Information document and the layout plans were made accessible upon request.

4.2. Public Participation for EIA

The public participation process was undertaken in accordance with the requirements of the Environmental Management Act of 2007 and its guidelines. The process is mandatory and it is very important as it serves various purposes. It helps in sustainable project implementation and decision-making processes giving equitable contributions towards project design.

4.3. Notification of Public and Stakeholders

The involvement of the public was done prior to the fulfillment of the EMAct and the comments were recorded electronically and manually.

4.3.1. Background Information Document

A background Information Document (BID) for the proposed developments was made available during the public consultations. It was distributed upon request by interested parties. Appendix C has a final BID made available to the interested and affected parties.

4.3.2. Newspaper adverts

Notification of interested and affected parties was done through the newspapers twice in the Confidente and Windhoek Observer. This was done prior to the fulfillment of the EMAct. Public notices were placed on the weekly newspapers dated 19th to 26th September 27th of September to 3rd of October 2025 in both Newspapers.

4.3.3. Site and Public notices

Site notices were placed all around Divundu notice boards and public places calling interested and affected members to attend a public meeting which was scheduled on the 06th of October 2025 at 10:00 Hrs on site. Figure 4 (A) and (B) overleaf shows one of the public notices placed on a police station s well as shopping complex.

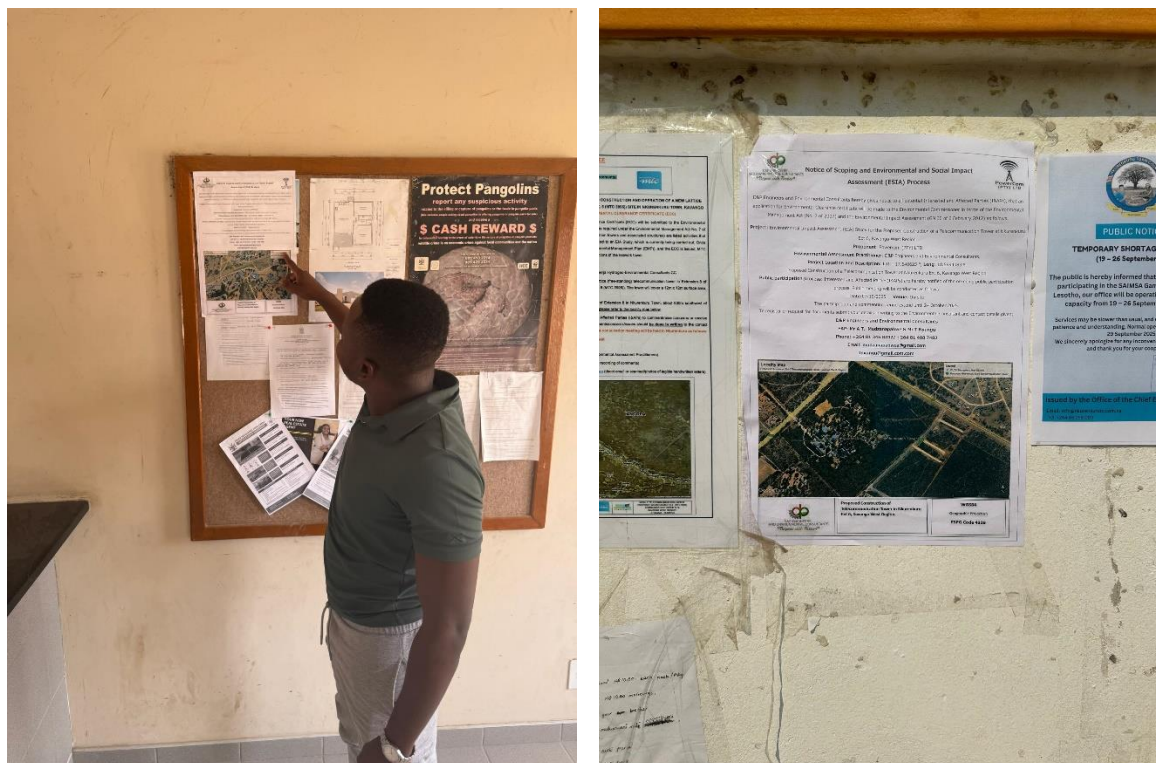


Figure 4(A) and (B) Public Notice at Divundu Police station

4.4. Public meeting

A public meeting was scheduled to held on the 6th of October 2025 on site but the gathering was not successfully done.

The EIA team decided to do interview to residents who are opposite, adjacent and close to the proposed site. This included schools, shops, business areas and police station. All responses were captured and forms part of Appendix C of the scoping report.

4.5. Public and Stakeholders comments

Key stakeholder to the proposed projects were consulted via emails. Listed were, National Radiation Protection Authority, CRAN, MICT and Namibia Civil Aviation Authority (NCAA).

Some of the concerns which arouse from interested and affected residents include employment issues, dust and noise concerns. This was recorded and all encompassed in the ESMP accompanying this Environmental Assessment Scoping report.

Deadline for the submission of comments was set on the 24th of October 2025.

4.6. Conclusion

The public and stakeholder consultations were done in respect to the EMAAct and the outcomes gave a green light for the project implementation that is if the ESMP designed by D&P consultants is instrumental.

5.0 ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT IMPLEMENTATION

5.1. Introduction

The **key environmental and socio-economic issues** associated and identified with the proposed tower erecting includes air pollution (Noise, dust and Vibration), landscape and Visual changes (Soils, Geology, soil erosion), ecology disturbance (Introduction of alien or exotic species, Flora and Fauna), socio Economic and human geography (employment creation, traffic increase), increased Solid waste generation (general waste), Culture dilution, population increase, illicit dealings, occupational Safety, Health and the Environmental related issues (for construction and general workers).

5.2. Impact Assessment Methodologies

To identify probable impacts this EIA study used different methodologies which include but not limited to:

- ❖ Desktop studies involving comparative analysis of similar projects within and around Namibia;
- ❖ Geographic Information Systems (GIS) and remote sensed data;
- ❖ Checklists and approved standards and relevant legislature;
- ❖ Desk reviews of secondary sources to determine specialized biodiversity or habitat suitability models;
- ❖ Networking and with stakeholder consultation methodologies including questioners, semi-public meetings and interviews with different stakeholders;
- ❖ Matrices done through scientific analysis and field observations;
- ❖ Other computer aided methods.

5.2.1. Checklists

Because of their advantage of simplicity, the assessment team used checklist approach. They bring structure to gathering and classifying information, to identifying potential environmental impacts, and to thinking about possible mitigation options. They also help in reaching tentative

conclusions on the extent of environmental impact. It is important to note that, no matter what the structure of checklists, a variety of sources can be used to develop them; local individuals, experts, and other concerned parties.

Checklists are widely used in EIA processes to guide decision-making, especially during the pre-feasibility and planning phases of the project lifecycle, when it is most critical to anticipate adverse impacts and to include mitigating measures in projects. Checklists are designed:

- ❖ To help **identify significant negative impacts** by providing the right questions to ask regarding the various project activities and the respective environmental components that may be affected. Checklists can be used to determine environmental impact thresholds, thus indicating whether a full-scale EIA is needed for a particular project;
- ❖ To provide a **systematic approach** to the environmental screening of development projects. A checklist forces the assessment to consider a standardized set of activities or effects for each proposed action, thus bringing uniformity to the assessment process;
- ❖ To indicate **how and why certain project activities have environmental impacts** which will allow planners to transfer those principles to the screening of projects not specifically addressed by the checklists;
- ❖ To assist in **identifying appropriate mitigation measures** to be incorporated into the project design; and,
- ❖ To **increase environmental awareness and understanding** of the relationship between environmentally sound practices and sustainable development.

Checklists provide variety of methods varying in complexity and characteristics and all share the common basis of an index of environmental factors or development activities as follows:

- ❖ *Simple checklists*
- ❖ *Descriptive checklists*
- ❖ *Questionnaire checklists*
- ❖ *Weighting-scaling checklists*

Advantages of Simple Checklists

- ✓ Used as 'aide memoir' to identify impacts
- ✓ Can provide structure to initial part of scoping stage
- ✓ Used as 'aide memoir' to identify impacts
- ✓ Can provide structure to initial part of scoping stage

Limitations when using Simple Checklists

Provide assessor with a list of factors to be considered, but no information provided on:

- ✓ Specific data needs
- ✓ Methods of assessing importance of impacts
- ✓ Ways of measuring change to environmental factors

Table 3 overleaf showing Potential Impacts of the construction and operation phases of the proposed project obtained as *simple checklists*.

Table 3: Anticipated Impacts

IMPACT		CONSTRUCTION PHASE RATING	OPERATION PHASE
ECOLOGICAL IMPACTS	Flora	2	1
	Fauna (other than humans)	1	1
QUALITY ASPECTS	Air Quality	2	1
	Solid waste	3	1
	Surface and ground Water Quality	1	1
	Landscape and Visual changes	3	3
SOCIO ECONOMIC AND HUMAN GEOGRAPHY	Traffic Increase	2	1
	Employment	3	1
	Illicity dealings	2	3
OCCUPATIONAL SAFETY, HEALTH AND THE ENVIRONMENTAL RELATED ISSUE		3	2
KEY Impact Likelihood occurrence (1-5) where 1 is very low likelihood and 5 is very high.			

A *descriptive checklist* was used to access the potential or anticipated impacts of establishing a new township on portion no 1362, remainder of Divundu Farm townlands. Table 4 below summarizes how environmental aspects were analyzed.

Table 4 overleaf showing analysis of potential Impacts during Construction and Operation phases of the proposed project development using a descriptive checklist.

Table 4: Analysis of potential Impacts

Environmental Aspects	No effects	Positive Impact	Negative Impact	Beneficial	Adverse	Problematic	Short term	Long term	Reversible	Irreversible
Land Pollution			x			x	x		x	
Land Degradation			x			x	x		x	
Natural Drainage (Soil Characteristics)			x			x		x		x
Wildlife	x									
Endangered Species	x									
Exotic Vegetation			x			x		x	x	
Bio diversity loss			x			x		x	x	
Air Quality (dust)			x			x	x		x	
Health and Safety			x		x	x	x	x	x	x
Economic Values (GDP, jobs, urban development)		x		x			x	x		
Noise			x				x		x	

Limitations when using Descriptive checklists

- ✓ It only recognizes impact
- ✓ Does not offer quantitative information

Questionnaire checklists

The assessment team also utilized *Questionnaire checklist* to gather all likely impacts. Attached to this report are a bunch of questionnaires which were distributed to the local residents during a public consultation period. The questionnaires were distributed on a random sampling technique. Founding on random sampling seven (7) responses (questionnaires) were recorded from the immediate neighbors to the site and attached as appendix B of the scoping report.

5.2.2 Benefits of checklists

- ✓ Comparatively simple method,
- ✓ Not necessarily project specific;
- ✓ Once established, can be used in many different situations

5.2.3. Limitations of checklists

- ✓ It only recognizes impact and provides no quantitative information
- ✓ Can never be considered as definite or complete
- ✓ Do not help to identify secondary or higher order impacts
- ✓ Tend to compartmentalize

5.3. Overview of Impacts Associated with the Project

Table 5 overleaf summarizes the potential impacts that are related to establishing a new Telecommunication tower and supporting infrastructure during operational phases.

5.3.1. Assessment of Potential Negative Impacts

Table 5: Environmental Impacts and Aspects Assessment

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance	Infrastructure/ Activity
TOPOGRAPHY	Landscape Scenery	Visual aesthetic impact	Construction and Operation	Moderate	Moderate	Local	Direct	Medium 25 - 75%	Minor	Tower construction
SOIL DISTURBANCE AND POLLUTION	Soil	Contamination to soil from paints and other potentially hazardous substances	Construction and Operations	Moderate	Small	Local	Direct	Low <25%	Minor	Tower construction
	Soil	Spillages of fuel, oil and lubricants.	Construction	Short	Small	Local	Direct	Low <25%	Minor	Tower construction
	Soil	Erosion	Construction	Moderate	Small	Local	Direct	Low <25%	Minor	Tower construction
LAND CAPABILITY	Terrestrial ecology	Change in land use	Construction and Operations	Permanent	Great	Local	Direct	Low <25%	Moderate	Tower
	Carrying capacity	Increase in human activities in the environment	Construction and Operations	Moderate	Moderate	Regional	Direct	Low <25%	Minor	Tower
WATER	Surface water quality	Water pollution from potential oils, lubricants and chemicals spillages.	Construction and Operations	Moderate	Small	Local	Direct	Medium 25 - 75%	Moderate	Construction hydrocarbons
AIR QUALITY	Air Quality	Construction phase dust	Construction	Short	Small	Local	Direct	Low <25%	Minor	Tower construction
WASTE	Groundwater quality	Hazardous waste such as waste lubricants and stored chemicals may be release into the environment.	Construction and Operations	Short	Small	Local	Direct	Low <25%	Minor	Tower construction
	Surface water quality	Threatened from chemicals being washed into nearby water bodies	Construction and operations	Moderate	Moderate	Regional	Direct	Medium 25 - 75%	Moderate	Tower construction
	Surface water quality	Construction and Operational solid waste	Construction and operations	Moderate	Moderate	Regional	Direct	Medium 25 - 75%	Moderate	Tower construction and maintenance
FAUNA	Terrestrial ecology and biodiversity	Loss of habitat and driving away of local animals	Construction and Operations	Short	Small	Local	Direct	Low <25%	Minor	Tower construction

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance	Infrastructure/ Activity
	Terrestrial ecology and biodiversity	Destruction of vertebrate fauna (e.g. road kills; and fence)	Construction and Operations	Short	Small	Local	Direct	Low <25%	Minor	Tower
SOCIAL	Noise Pollution	Increased noise levels	Construction	Moderate	Small	Local	Direct	Low <25%	Minor	Tower
	Socio Economic Activities	Temporary and permanent employment prospects.	Construction and operations	Long	Moderate	Regional	Direct	Medium 25 – 75%	Positive	Tower
	Socio Economic Activities	Climate change impacts	Operations	Long	Moderate	Regional / National	Direct	High >75%	Positive	Tower
	Contribution to National Economy	Employment, local procurement, duties and taxes.	Construction and Operations	Short	None	Regional / National	Direct	Low <25%	Positive	Tower
HERITAGE	Artefacts, archaeological high value components	Destruction or affecting paleontological and archaeological artefacts	Construction and Operation	Moderate	Small	Local	Direct	Low <25%	Minor	Tower
HEALTH AND SAFETY	Health Sanitation	Poor ablution and waste management facilities may be detrimental to human health.	Construction	Moderate	Moderate	Local	Direct	Medium 25 – 75%	Moderate	Tower
	Property and human life	Electrocution, fires resulting in fatalities, damage to properties, veld fires and power surges.	Construction and Operation	Moderate	Great	Local	Direct	Medium 25 – 75%	Major	Tower housing and maintenance
	Natural Environment	Spillage/ release of chemicals into the environment	Operation	Moderate	Great	Local	Direct	Medium 25 – 75%	Major	Tower
	Humans, Vegetation, Animals	Potential impacts from non-ionizing radiation propagated by masts.	Operation	Moderate	Small	Local	Direct	Low <25%	Minor	Tower
AVIAN IMPACTS	Air traffic	Air Traffic disturbances	Operation	Moderate	Great	Local	Direct	Medium 25 – 75%	Major	Tower
	Avifauna	Bird fatalities	Operation	Moderate	Moderate	Local	Direct	Medium 25 – 75%	Moderate	Tower

Environmental Impact	Valued Ecosystem Component	Impact	Project Phase	Duration	Magnitude	Extent	Type	Probability	Significance	Infrastructure/ Activity
TRAFFIC	Access roads	Vehicular accidents	Construction and Operation	Moderate	Great	Local	Direct	Medium 25 – 75%	Major	Tower

5.4. Overall Site Sensitivity

This assessment report came up with an overall site sensitivity matrix, considering the preliminary site visits, public consultations and experience. Anticipated impacts (positive and negative) can therefore be monitored and moderated to ensure a sustainable project implementation. In general, the proposed project can bring modifications to the environment at which if the Environmental management Plan, specialist surveys drafted for the assessments is practically taken into practice, a sound sustainable project development can be archived with much respect to the environment. Table 6 overleaf provides a significance rating for each impact before and after mitigation.

TABLE 6: *Overall Site sensitivity*

Impact	Unmitigated	Overall Significance	Mitigated	Overall Significance
CONSTRUCTION PHASE				
Dust	7	Moderate	4	Low
Noise	5	Low	3	Very Low
Biodiversity loss	4	Low	4	Low
Effects on Groundwater	7	High	5	Moderate
Impact on soil	7	High	5	Low
Generation of waste	6	Moderate	4	Low
Occupational Health and Safety	6	Moderate	4	Low
Spread and risk of HIV /AIDS	7	High	5	Low
Traffic impact	5	Low	3	Very Low
Heritage impact	4	Low	3	Low
OPERATION PHASE				
Traffic impact	6	Moderate	5	Low
Population Increase (Spread and risk of HIV /AIDS)	6	Moderate	4	Low
Economic Values (GDP, jobs, urban development)	8	High	8	High
Occupational Health and Safety	6	Moderate	5	Low
Solid waste generation	8	High	5	Low

Effluent waste (blockages and leakages)	5	Low	3	Low
Underground water extraction	6	Moderate	4	Low
Increased surface runoff	6	Moderate	4	Low

KEY: SCORES RATING FROM (0 TO 10)

5.5. Risk Analysis

Based on the impacts identified by this study as from site visit, process analysis, desk study and stakeholder consultations conducted, an integrated (environmental) risk analysis was carried using a Sustainable Project Implementation approach, as well as the international Procedures. The risk analysis showed generally life over the entire lifespan of the whole project the public and the workers are at a very low risk to the impact and hazards associated with the project is compliance with the ESMP is observed. However, compliance inspections should be always done to guarantee the protection of the environment.

6.0. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion and Recommendations

In conclusion, this Environmental Impact Assessment (EIA) has been conducted to comprehensively evaluate the potential environmental, social, and economic impacts associated with the proposed Construction and Operation of the Divundu Telecommunication Tower. The assessment considered the baseline environmental conditions, anticipated project activities, and input from stakeholders to identify and address key concerns and opportunities for mitigation.

The findings indicate that while the project presents certain environmental and social challenges, these can be effectively managed through the implementation of the recommended mitigation measures outlined in the Adherence to the Environmental and Social Management Plan. Adherence to the ESMP will ensure compliance with relevant legislation, minimize adverse impacts, and enhance positive outcomes for the environment and affected communities.

We emphasize the importance of regular monitoring, stakeholder engagement, and adaptive management throughout the lifecycle of the project. These steps will not only ensure compliance with environmental standards but also foster a collaborative approach toward sustainable development.

Based on this assessment, we recommend that the project proceed, subject to the adoption of the mitigation measures and commitments outlined in this report and ESMP. We trust that this Assessment report provides a robust framework for informed decision-making by the relevant authorities.

Reference

Allison, Ian. **The science of climate change: questions and answers**. Canberra: Australian Academy of Science, 2010.

Divundu Village Council appoints CEO". **New Era Newspaper Namibia**. 2016-07-27

Directorate of Environmental Affairs. (2002). **Ministry of Environment and Tourism**, Atlas of Namibia Project.

Kimberly E, and Wylie T,(2004). **The environment: a revolution in attitudes**. Ed by (2005) ed. Detroit T. G.

Rhodes. F, (2012). **All Africa: Woodcarvers of the Kavango Journal Retrieved** 2017-12-20.

Republic of Namibia, Ministry of Environment and Tourism. (1994) **National Environmental Assessment Policy**.

Republic of Namibia, Ministry of Environment and Tourism. (2002) **National Environmental Management Bill**.

Ruppel and Ruppel schlichting (eds) (2011). Environmental Law and Policy in Namibia.

APPENDIX A: ENVIROMENTAL AND SOCIAL MANAGEMENT PLAN

APPENDIX B MAPS, SITE PLANS AND STRUCTURAL LAYOUTS

APPENDIX: C : PUBLIC CONSULTATION TEMPLATES

APPENDIX: D LEAD EAP CV