Application No. APP-002872

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED TOWNSHIP ESTABLISHMENT OF OKONGO EXTENSION 3 & 4, IN OKONGO, OHANGWENA REGION.

ENVIRONMENTAL SCOPING REPORT

Prepared For

Okongo Village Council

Private Bag 66003

Okongo

Prepared by

Green Gain Consultants

+264 81 142 2927

info@greegain.com.na

https://www.greengain.com.na

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DOCUMENT INFORMATION

Project Name	**Townships establishments of Extension 3 & 4, Okongo, Ohangwena region.**
Proponent	**Okongo Village Council** Address: Private Bag 66003 Tel: 065-288510/511
EAP	**Green Gain Consultants cc** Address: P. O. Box 5303, Walvis Bay Contact: Mr. Joseph K Amushila Cell: 0811422927 Email: info@greegain.com.na
Report Type	Environmental scoping Report
Application No.	APP02872
Assessment Period	June to August 2021

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LIST OF ACRONYMS

CEB: Cuvelai-Etosha Basin

DEAF: Directorate of Environmental Affairs and Forestry

EAP: Environmental Assessment Policy

EIA: Environmental Impact Assessments

EMA: Environmental Management Act

EMP: Environmental Management Plan

I&APs: Interested and Affected Parties

LNAPL:Light Non-Aqueous Phase Liquids

MAWLR Ministry of Agriculture, Water, and land Reform

MEFT: Ministry of Environment, Forestry and Tourism

MSDS: Material Safety Data Sheet

MURD: Ministry of Urban and Rural Development

NORED Northern Regional Electricity Distributor

PPE: Personal Protective Equipment

MGCW: Ministry of Gender and Child Welfare

NSA: Namibia Statistic Agency

EXECUTIVE SUMMARY

The rapid urbanization has created a growing demand for serviced land for social and economic development such as housing, businesses, institution etc in Okongo. In orer to address these challenges, the Okongo Village Council has decided to subdivide available and developable land surrounding the town area to provide serviced land. As such the Council intends to establish new townships establishments to be known as Okongo extension 3& 4.

In terms of the Environmental Management Act, No. 07 of 2007 and its Regulations (No. 03 of February 2012) "land use and development activities" and associated township establishment activities may not be undertaken without an Environmental Impact Assessment study being undertaken and Environmental Clearance Certificate being obtained.

Green Gain Consultants cc was appointed to conduct an Environmental Impacts Assessment (EIA) study and apply for the ECC for the proposed activities. This study was carried out in line with the requirements of the Environment and Management Act (Act No. 07 of 2007) and its Regulations (GN No. 30 of February 2012). A multidisciplinary approach was used which include collection of baseline information both biophysical environment and socio-economic as well as consultation with potential Interested and Affected Parties (I&APs) and relevant stakeholders.

This Scoping Report presents an assessment of potential environmental and socio-economic impacts. Also attached is an Environmental Management Plan (EMP) which detail a list of mitigation measures to avoid and minimize potential negative impacts and optimize the potential positive impacts. It also outlines roles and responsibilities of the proponent and other different role players. The EMP, upon approval by the Ministry of Environment and Tourism (MEFT) will be a legally binding document to which the proponent will be needed to adhere to.

1. INTRODUCTION AND BACKGROUND

1.1 Background

The intended development entails township establishments of Okongo Extension 3 and Okongo Extension 4. Extension 3 is located on Erf 810 of Okongo extension 2 north-east of town while Extension 4 is located on farm 1282 of Okongo townlands. Both extensions are located adjacent to each other on the eastern to northeast of the town.

Town Planning procedure will be applied in terms of the Townships and Division of Land Ordinance 11 of 1963, as amended and approval will be obtained from the Urban and Rural Planning Board (URPB) under the Ministry of Urban and Rural Development (MURD) for the intended subdivision.

1.2 Scope of the study

The environmental scoping study was conducted in line with the Namibia's Environmental Impact Assessment Regulations (GN No. 30 of 2012). It indicates a description of the affected environment and the way the proposed activities may affect the environment.

A multidisciplinary approach was used to collect baseline information. Information pertaining to the receiving environment and its social surroundings has been sourced through site investigations, Council documents and the use of Geographic Information Systems (GIS) mapping. The study also benefited a great deal from Interested and Affected Parties contributions.

1.3 Purpose of the study

The aims of this Scoping process are.

- Evaluate the suitability of the proposed activities against the biophysical and socio-economic of the area.
- Propose the appropriate mitigation measures to avoid, mitigate or lessen the negative impacts.
- Obtain inputs from I&AP's and relevant stakeholders.
- Above all, comply with the EMA, No. 07 of 2007.

1.4 Environmental Assessment Practitioner (EAP)

Green Gain Consultants cc is a Namibian based professional environmental and natural resources consulting firm established and driven through belief, passion, and dedication to sustainable development. Established in 2012, Green Gain has grown into a substantial team of environmental practitioner in Namibia providing innovative and cost-effective solutions to environmental challenges and help our clients meet regulatory and stakeholder expectations for environmental performances. The table below presents detailed information about Green Gain Consultants cc.

Table 1: Details of the EAP

Environmental Assessment Practitioner (EAP): Green Gain Consultants cc	
Physical address	Cnr. Joe Davis and Paul van Harte, Narraville, Walvis Bay
Postal address	P.O. Box 5303, Walvis Bay
Contact numbers	0813380114 or 0811422927
Email address	info@greengain.com.na
Expertise	**Name: Mr. J.K. Amushila** **Qualifications:** *M. Sc. Environmental Management, B. Honors Agriculture, B. Degree Agriculture, National Diploma in Agriculture.* **Experience:** He is a registered EAPAN member (No.165) He has worked on several EIA and SEA projects. Through his consulting work he gained experience of not only EIA project management, but also environmental specialist experience as well as public consultations.

2. APPROACH TO THE STUDY

Given the nature of the proposed activities, a combined scoping assessment and EMP approach was followed, this includes the following methods.

- **Site visits to collect primary data.**
- **Legal and policy review**
- **Gleaning over existing information pertaining to similar developments and issues**
- **Discussions, meetings, and site visits with the Authority and in this case the proponent**
- **Incorporate opinions and concerns raised by interested and affected parties.**
- **Make professional judgment and recommendations.**

2.1 Baseline study

a). Site Visits:

Sites visit was conducted to collect biophysical data such as.

- Flora and Fauna of the area
- Roads and traffic information
- Land use and adjacent areas
- Hydrological features
- Soil and Geology
- Topographic features, etc.

b). Review of Policy and Relevant Documents/Literatures

Some of the Literatures that were reviewed are as follow.

- Legislations i.e., Townships and Division of Land Ordinance 11 of 1963, Local Authorities Act, (Act 23 of 1992), Environmental Management Act 07 of 2007 etc.
- National Housing Census of 2011
- State of Environmental reports and Atlas of Namibia

2.2 Public participation process

The environmental assessment regulations specifies that a public participation process must be conducted as an integral part of the EIA study. This was adhered to, as potential I& AP and relevant stakeholders were invited to register and forward concerns / comments to the EAP to ensure an equitable and effective participation.

2.2.1 Notification of I&APs and Stakeholders

Potential interested and affected parties (I&APs) were notified through newspaper advertisements and public notices which provided brief information about the proposed project and the EIA process. Public notices were advertised twice in two local newspapers New Era 28 May and 04 of June 2021 and the Confidante newspaper for 27 May and 03 of June 2021. Some public notices were also displayed at the Council offices and other public notice boards within Okongo. Residents were also invited through the local radio station.

Figure 1: Public notices

2.2.2 Public meeting

A public meeting was held on the 07th of June 2021 at the Ministry of Gender and Social Welfare Hall 16:30. During the meeting, the EAP made a presentation on the intended development and the EIA study being undertaken. He also presented the locality map of the proposed development site. Attendees were requested to ask questions and give their inputs on the proposed development. These inputs were compiled and will be incorporated in the Scoping report.

Figure 2:Public meeting

2.2.3 Summary of issues raised during consultations

Issues raised	Remarks
We have noticed that in most cases, trees that have been affected by developments are often cleared in irresponsible way as most it goes to waste. Why can't the Council use such vegetation as timber or firewood to generate income for Council and create employment opportunities for local people?	Council has taken note of this proposal and will take it up further. It is really a good idea and an eye opener.
Council must investigate the issue of businesses located next to residential area and schools. Some businesses such as sheebens causes a lot of noise. The planning for new townships must also make sure businesses are far from residential and institutional.	This issue is mostly found in informal or unplanned townships where most business are operating illegally. Council is in the process of formalizing some of these areas and will make sure no business is located next to schools or residential areas.
Council must first inform residents before sending any official or consultants onsite during the planning process. We just found pegs/marks on our properties; we do not know what is going on or who put it there.	Council ahs taken note.
Council must make provision for sleeves for service lines to avoid damaging the roads when installing service lines at later stage.	Noted and will be considered during construction phase
The proposed extension 4 has few institutional erven. Please add one or two more so that it can accommodate new clinics because the current one is far from the people.	Input to be submitted to the Town Planner
The streets must be wide enough to ensure the safety of pedestrians	Input to be submitted to the Town Planner

3. DESCRIPTION OF THE PROPOSED ACTIVITIES

3.1 Locality

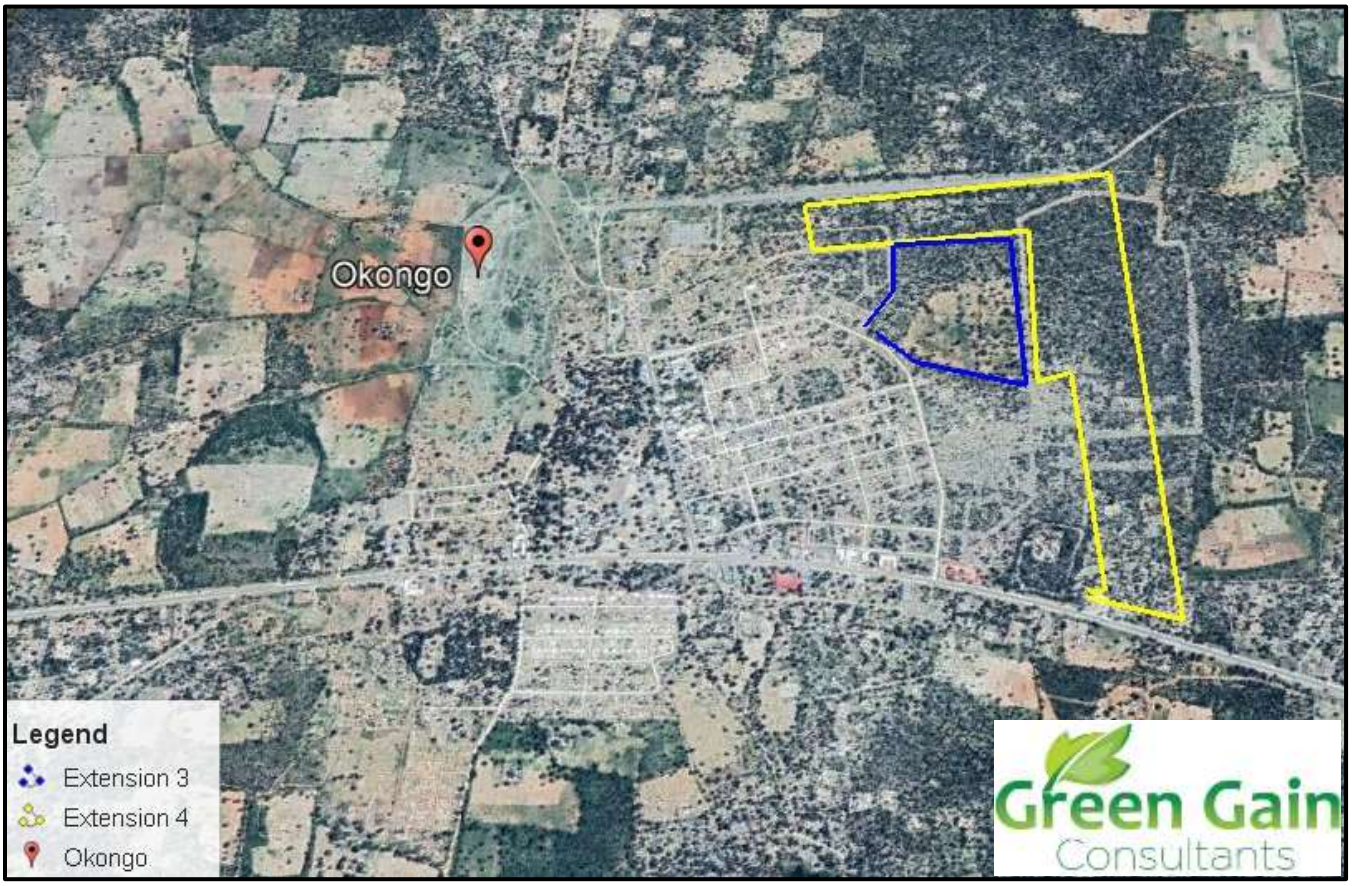


Figure 3:Locality map

Extension 3 is located on Erf 810 which is a remainder of Okongo extension 2 north-east of town and can be located on the following coordinates -17.565361" S, 17.232614" E while Extension 4 is located on farm 1282 of Okongo townlands and can be located on the following coordinates -17.565361" S, 17.232614" E.

3.2 Site descriptions

a). Extension 3

The area earmarked for Extension 3 development measures 29.6547 hectares in size. The larger part of the site is still vacant and is covered by thick vegetation of the typical northern eastern woodland. There are also few informal houses found within the proposed development site.

Figure 4: Overview of Extension 3

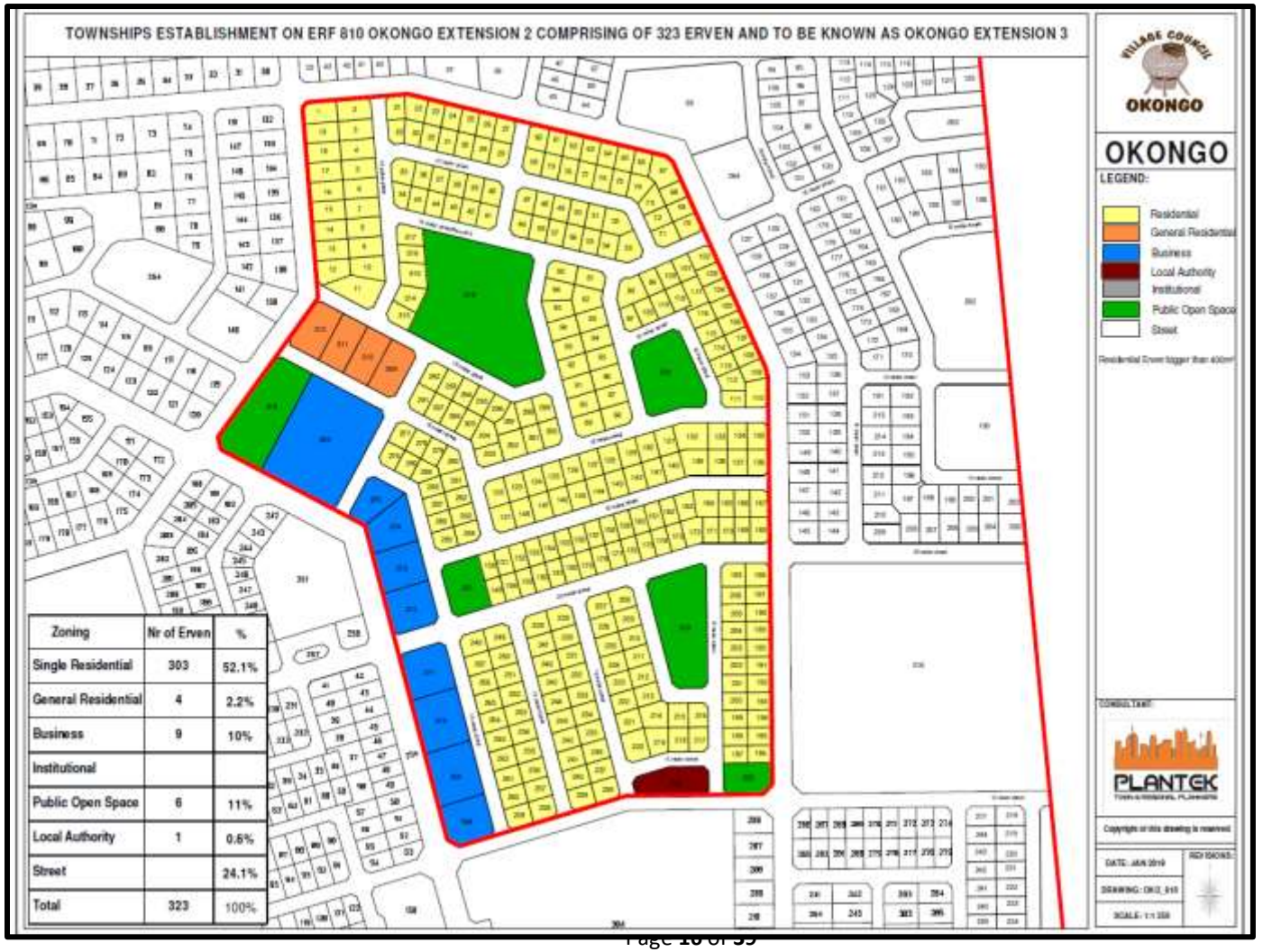
b). Extension 4

The area earmarked for Extension 4 development measures approximately 41.1504 hectares in size. The site lies behind the proposed extension 3 and covers the eastern boundary of Okongo town. The larger part of the site is still vacant and is covered with thick woodland. The site is somehow disturbed due to its proximity to the town, hence local people collect wood for fencing and firewood. The site is boarded on the north by the Okongo air strip which was previously used for military purposes by the South Africa Defense Force (SDF) during the war of liberation struggle. The air striped is currently utilized by private chartered flights. The site was also feared to have contain from previous military activities in the area. According to the Okongo Village Council, the site was demined by the Namibia Police in collaboration with the Namibian Defense Force and can be considered safe for possible occupation.

3.3 Proposed township layouts

a). Okongo Extension 3

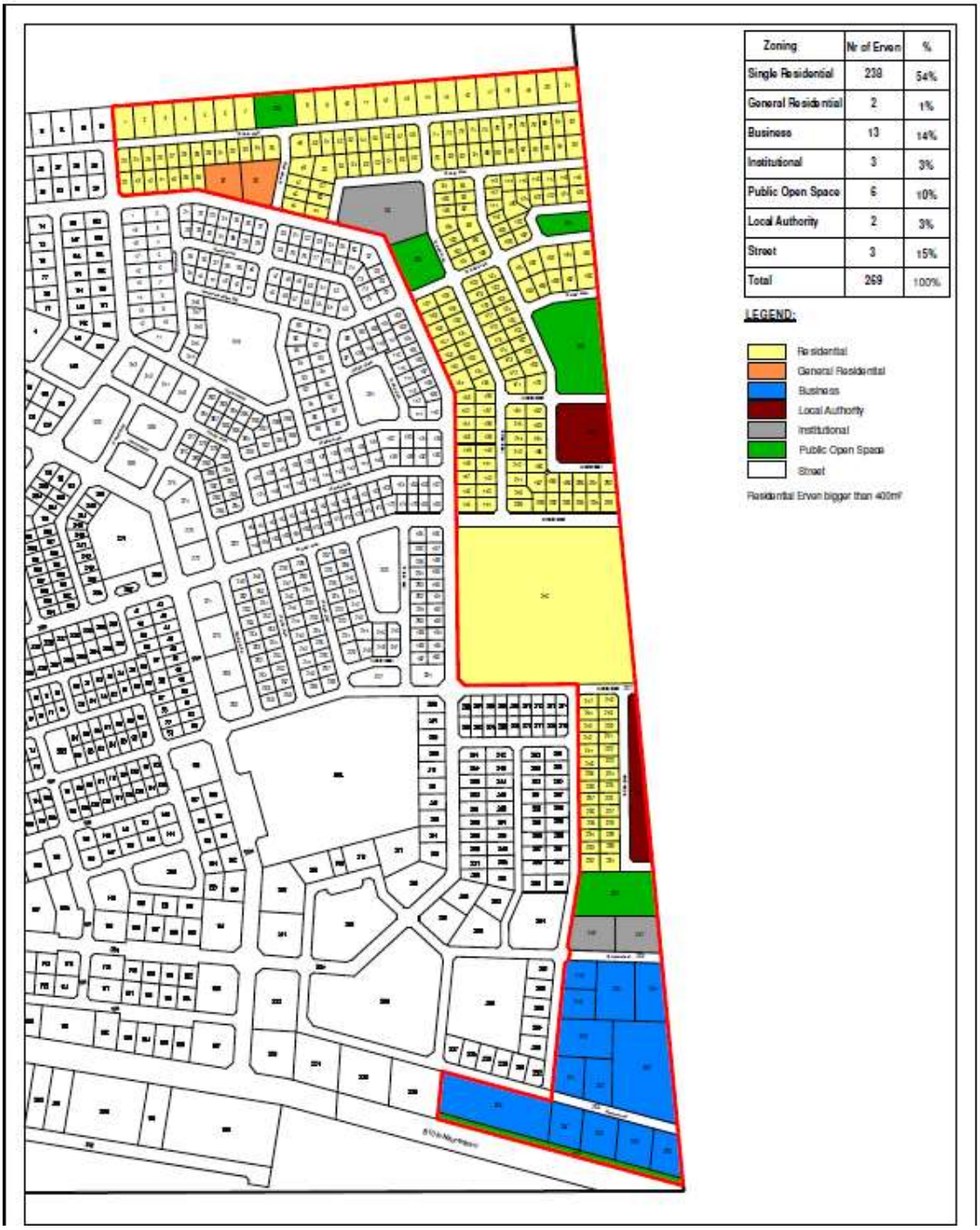
Extension 3 will be subdivided into 323 erven of which 303 are for residential, 9 is business, 6 Public Open Spaces (POS), 4 General residential, 1 local authority and remainder as streets.



Zoning	Nr of Erven	%
Single Residential	303	52.1%
General Residential	4	2.2%
Business	9	10%
Institutional		
Public Open Space	6	11%
Local Authority	1	0.6%
Street		24.1%
Total	323	100%

a). Okongo Extension 4

The site will be subdivided into 269 Erf as follows: 238 single residential, 13 business, 6 POS, 3 institutional, 2 General residential, 2 local authority and remainder as streets.



3.4 Project alternatives

The EIA Regulations stipulates that the Scoping process should investigate alternative development options to any proposed developments/activities. The following alternatives were considered.

- **Land use alternatives:** The proposed development sites is within the townlands and thus are expected to be developed at any time to accommodate the growth of town. Moreover, the site is somehow disturbed due to its proximity to the existing development. If these sites is not developed, it will soon be occupied by illegal settlers. Hence, the site is considered suitable for the proposed development and no alternative site is required.

- Do-Nothing - The do-nothing ("no go") option would entail not using the site and maintaining the site as is. From certain perspectives this is not a viable option as the site is situated within a proclaimed area planned for urban use and surrounded by either upcoming or already existing residential communities. By not developing the site, the site will be anomalous in the context of the surrounding urban residential land-uses, and some of the direct and indirect socio-economic benefits (i.e., job creation, housing shortages, provision of further housing aimed at the mature living market, etc.) will not be realized.

3.5 Need and desirability

The need and desirability of the proposed development is based on the following aspects.

The "need" for the project:

- The provision of low-income housing has become a national concern. With the growing demand for serviced land due to rapid urbanization, it is of high priority that the Council subdivide available and developable land surrounding the town area to provide land especially for housing and businesses.
- The project is planned at a time and place in a developing sector of the town and can be a natural opportunity associated with the growth of the town.
- The activities will enable Council to ensure timely and adequate municipal service to the local community.

The "desirability" of the project:

- As the site is located in an "expansion zone", the approval of this application would not compromise the integrity of the proposed town urban Structure Plan.
- The approval of this application would not compromise the integrity of the existing environmental management priorities for the area.
- The location factors favour this land-use (associated with the activity applied for) as it is located within a developing orientated area with much potential for growth.
- It is not anticipated that the activity will result in unacceptable opportunity costs as it will be integrated with the existing developments.
- The proposed development will ensure service delivery is provided while creating business opportunities for developers and also creation of local employment.

4. THE AFFECTED ENVIRONMENT

This section provides a brief description of the existing biophysical and built/social environments. It draws on information from site visits, the study team and member's experiences, background literature as well as maps and photographs. It also presents a background against which the positive and negative impacts of the proposed options can be assessed.

4.1 Socio-economic

- About Okongo

Okongo is a village town situated in the far north of Namibia in Ohangwena region, about 120 kilometres east of Eenhana on the B10 main road to Nkurenkuru. The town is the district capital of Okongo Constituency and is governed by a village council that has five seats.

Figure 5: Locality of Okongo town

According to NSA (2011), the population of Ohangwena region is estimated at about 245,100, with a population density of more than 11 persons per km^2 while the town of Okongo had an urban population of about 5528 inhabitants.

- Social and economic development

Okongo forms a gateway between the Ohangwena region and the Kavango west region and the main road passes through the town. The town has basic amenities such as electricity, water, and sanitation as well as local businesses such as furniture, building equipment & clothing outlets and supermarkets. There are also basic public& private services available such as pharmacy, private doctors, post office, and banking facilities. Many government Ministries and parastatals have offices in the town such as MAWLR, AMTA, NATIS, MGCW, MEFT etc.

Figure 6: Development overview

The town is served with a District Hospital with a 62-bed capacity which serves town and the surrounding villages. There are two pre-primary schools, one primary school (Okongo Primary School), a combined school (Elia Weyulu Combined School) and a secondary school (Oshela Senior Secondary School).

- Investment and opportunities

Okongo is also known for its residential neighbourhoods consisting of low-, middle- and high-income groups. Given its central location between Eenhana and Nkurenkuru and its proximity to the main road, the town is considered favourable for investment by many investors because of large volumes of vehicles and commuters passing through the town. The town also organise annual Omalundi festival which attracts a lot of people.

4.2 Biophysical

- Climatic conditions

The prevailing climate in the area is classified as a local steppe climate, classified as hot semi-arid climate (BSh) by Köppen and Geiger (1954, 1961). The temperature condition is mainly hot for most part of the year, with an average maximum temperature ranging between 24 °C-36 °C during summer. While during winter, the temperature is mainly cold ranging between 7 °C - 21°C. October is the hottest month while June/July is normally the coldest month.

- Topography and surface drainage

Ohangwena is situated on a flat plain and extends east to west along the Angolan border. The area has a flat topography with drainage highly influenced by the Cuvelai-Etosha-Basin (CEB). Its drainages are made up of networks of shallow watercourses locally known as iishanas.

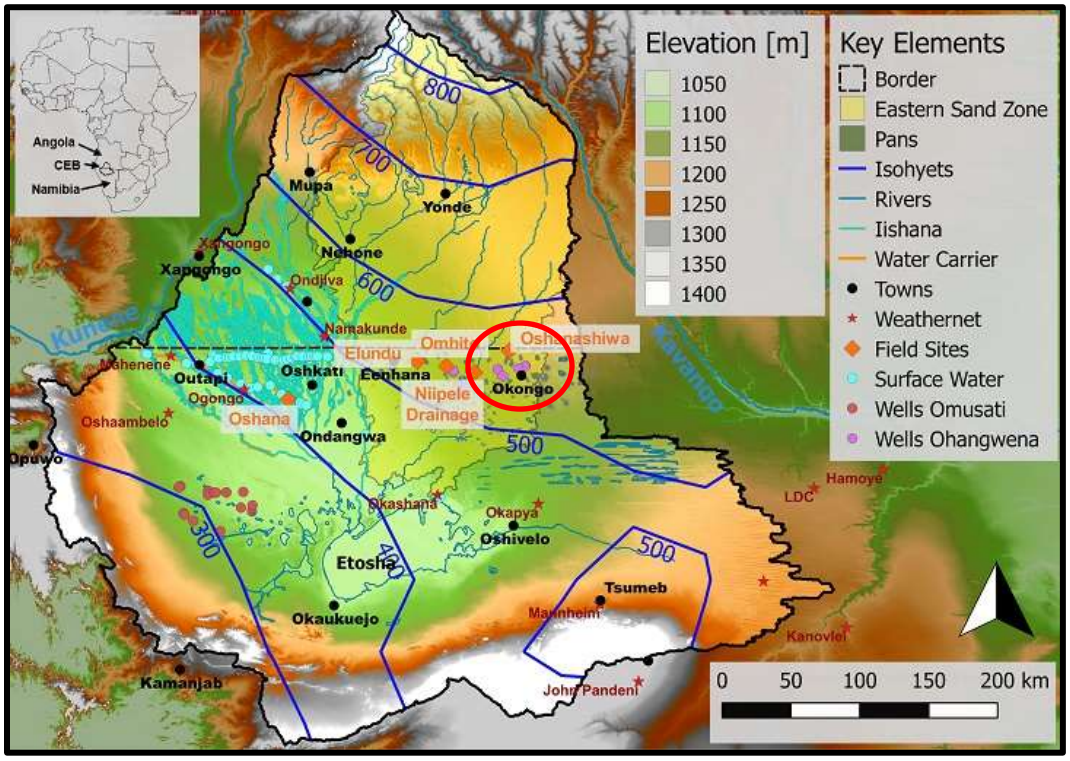


Figure 7: surface drainage of CEB

- Groundwater

Ground water is the main source of water supply in the region. Surface water in the area is found in the Iishanas during rainfall season and the end of the rainfall season, water is found in natural ponds (Omadhiya). Surface water that normally last between rainfalls seasons are found in manmade lakes (Marsh, A., & Seely, M. (1992).

- Flood risk

The Ohangwena region is affected seriously by floods, especially in the western part of the territory, due to the presence of many iishanas associated to the Cuvelai basin. The Eenhana area is part of the Central area of the region, hence the flood risk is considered a moderate risk zone.

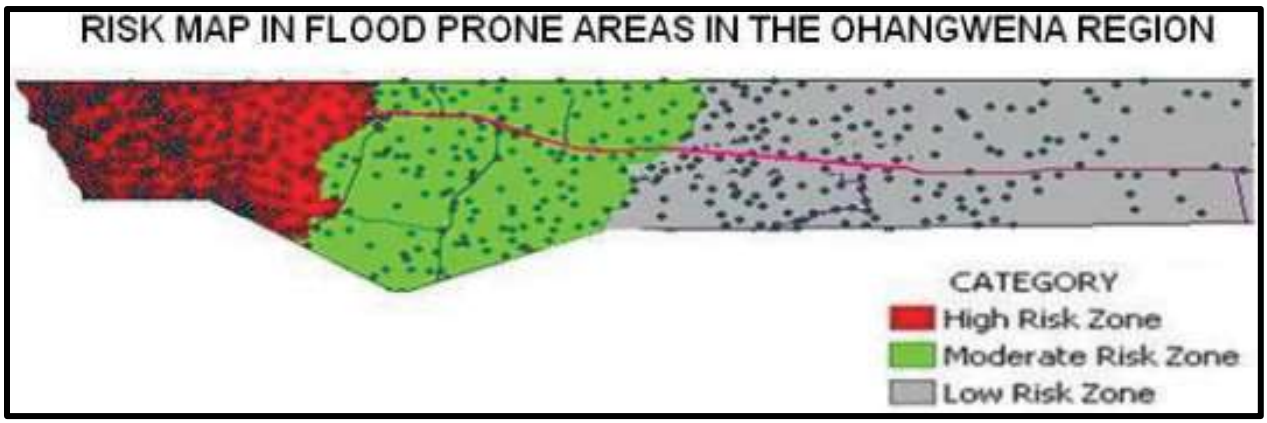


Figure 8: Flood risk map for north-east Namibia (Source: MURD)

- Soil

Namibian's northern part, commonly known as the "Cuvelai-Etosha-Basin" is formed by sand deposit from water borne deposit millions of years ago. These deposit of sand and water borne deposits formed the Kalahari Basin. The deposits of sands, clay and calcretes makes up the Kalahari Group. Eenhana is part of an extensive sedimentary basin which is part of the much larger Kalahari Basin covering parts of Angola, Namibia, Zambia, Botswana, and South Africa.

- Flora and fauna

The vegetation of Okongo and its surrounding is almost homogenous and is part of the North-eastern Kalahari Woodland which is composed of broadleaved trees and shrubland. All proposed development sites are somehow disturbed due to their proximity to the town's CBD. The vegetation that can be found onsite is mainly characterized by large trees, shrubs, and grass species such as *Burkea Africana, Terminalia species, Combretum species and a few Acacia erioloba*, whereas the local occurring grass species consist mainly of sub-climax species such as *Panicum maximum, Digitaria sericia, Brachiaria, Erasgrostis* species etc.

Figure 9: Vegetation of Erf 103, 345 and 329

5. LEGAL REQUIREMENTS

The following is a brief overview of all pertinent Acts, bills, laws, policies, and standards regarding the environment which were considered while conducting the Scoping study for the intended activity.

Table 2: Applicable National Laws

LEGISLATION	PROVISION	PROJECT IMPLICATION
Constitution of the Republic of Namibia (1990)	The articles 91(c) and 95 (i) commits the state to actively promote and sustain environmental welfare of the nation by formulating and 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.	The proposed development must be of sound environmental management objectives.
Environmental Management Act No. 07 of 2007	The purpose of this Act is 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 provide for a process of assessment and control of projects which may have significant effects on the environment; and to provide for incidental matters. 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 for the interested and affected parties to voice and register their opinions and concern about the proposed project.	This has been complied with; thus, an EIA has been carried out and an ECC will be applied for prior to the creation of the proposed roads.
Water Resources Management Act 2004	The Water Resources Management Act (No 11 of 2013) stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of	The protection of ground and surface water resources should be a priority. Obligation not to pollute surface water bodies.

	sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.	
Pollution Control and Waste Management Bill	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. This Bill will license discharge into watercourses and emissions into the air.	All activities shall be conducted in an environmental sustainably manner.
Labour Act (No 11 of 2007)	135 (f): "the steps to be taken by the owners of premises used or intended for use as factories or places where machinery is used, or by occupiers of such premises or by users of machinery in connection with the structure of such buildings of otherwise in order to prevent or extinguish fires, and to ensure the safety in the event of fire, of persons in such building;" (Ministry of Labour and Employment Creation)	Contractors, Sub-contractor shall be guided by this Act when recruiting or handling employment related issues.
Noise Control Regulations (Labour Act)	It is essential to ensure that before any development project is approved and undertaken, an assessment or evaluation of expected noise level is done.	Noise generation during construction/development should be minimized to the satisfactory of neighboring residents and the town Council.
Town and Regional Planners Act, 1996 (Act No. 9 of 1996)	This Act establishes the Namibian Council for Town and Regional Planners, defines functions, and powers of the Council and provides for the registration of town and regional planners and the supervision over their conduct. The Minister may, on recommendation of the Council prescribe the kinds of work of a town and regional planning nature which shall be reserved for town and regional planners. The Act also defines improper conduct and defines disciplinary powers of the Council. Furthermore, the Act provides for the establishment of national, regional, and urban structure plans, and the development of zoning schemes. It also deals with a variety of related land use control issues such as	A registered Town Planner has been appointed for this project.

	the subdivision and consolidation of land and the establishment and extension or urban areas.	
Town Planning Ordinance (No. 18 of 1954)	Subdivision of land situated in any area to which an approved Town Planning Scheme applies must be consistent with that scheme (S31).	Town Planning Procedures will be registered through the URPB
Townships and Division of Land Ordinance 11 of 1963, as amended	The objective of this Ordinance is to consolidate and amend the laws relating to the establishment of townships and to provide for the regulation and control of the development and subdivision of land and for matters incidental thereto.	Subdivision of land situated in any area to which an approved Town Planning Scheme applies must be consistent with that scheme (S31).
Land Survey Act 33 of 1993	To regulate the survey of land; and to provide for matters incidental thereto.	Surveying procedures must be applied accordingly
Local Authorities Act (No. 23 of 1992)	The purpose of the Local Authorities Act is 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.	The proponent is a Local Authority. The need and desirability for the proposed subdivision has been approved.
Soil Conservation Act 76 of 1969	The Soil Conservation Act stipulates that the combating and preventing of soil erosion should take place; the soil should also be conserved, protected, and improved, vegetation and water sources and resources should also be preserved and maintained. When proper mitigation measures are followed along the construction and implementation phase of the project, the natural characteristic of the property is expected to have a moderate to low impact on the environment.	This should be complied with during the construction phase as outlined in the EMP for this project.

6. ASSESSMENT OF PROJECT IMPACTS

The scoping process has identified potential project impacts during its planning and operation phase and examined each of these issues. In assessing the impact of the proposed development, four rating scales were considered. Each issue identified was evaluated in terms of the most important parameter applicable to environmental management. These include the ***extent, intensity, probability, and significance*** of the possible impact on the environment. The rating scales used are as follows.

Table 3: Significance assessment

CRITERIA	DESCRIPTION			
EXTENT	**National (4)** The whole country	**Regional (3)** Ohangwena region and neighbouring regions	**Local (2)** Within a radius of 2 km of the proposed site	**Site (1)** Within the proposed site
DURATION	**Permanent (4)** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term (3)** The impact will continue/last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter.	**Medium-term (2)** The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
INTENSITY	**Very High (4)** Natural, cultural, and social functions and processes are altered to extent that they permanently cease	**High (3)** Natural, cultural, and social functions and processes are altered to extent that they temporarily cease	**Moderate (2)** Affected environment is altered, but natural, cultural, and social functions and processes continue albeit in a modified way	**Low (1)** Impact affects the environment in such a way that natural, cultural, and social functions and processes are not affected
PROBABILITY	**Definite (4)** Impact will certainly occur	**Highly Probable (3)** Most likely that the impact will occur	**Possible (2)** The impact may occur	**Improbable (1)** Likelihood of the impact materialising is very low
SIGNIFICANCE	Is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.			

Table 4: Color coding meaning

Low impact **1-4**	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction, or operating procedure.
Medium impact **5-8**	Mitigation is possible with additional design and construction inputs.
High impact **9-12**	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact **13-16**	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse
It is important to note that the status of an impact is assigned based on the status quo – i.e., should the project not proceed. Therefore, not all negative impacts are equally significant.	

7. ANTICIPATED PROJECT IMPACTS AND MITIGATION MEASURES

Table 5: Potential negative impacts associated with the proposed activities: Construction Phase.

ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION					MITIGATION MEASURE
		Extent	Duration	Intensity	Probability	Significance	
BIOPHYSICAL IMPACTS	Loss of vegetation during construction	1	3	2	2	Moderate	-Only plants affected by the activities must be cleared. -Large trees that are not directly affected by the construction activities can be left out and incorporated the development.
	Alteration of existing visual perspective	1	4	2	2	High	-Leave some trees to enhance the view
	Possible surface water and groundwater pollution from oil leaks, spills from machineries etc.	2	3	3	2	moderate	-No pollutant must be discharged in the soil. -All spillage or leaks must be cleaned up
	Impact on the natural watercourse and natural flow of storm water and flood water	1	3	2	3	Moderate	-Ensure there is enough drainage for storm water by placing culverts and drainage channels when constructing access roads and other facilities.
	Loss of topsoil during construction	1	1	2	2	Moderate	-Soil conservation measures should be used on-site to help reduce erosion. -Prevent silting of watercourses by use of silt traps and re-vegetation of disturbed areas

							-Topsoil must be stockpiled and protected for later use.
	Land disturbances due to construction activities	**1**	**1**	**1**	**2**	**Moderate**	-Avoid soil compaction and limit excavation to the area to be developed -All open trenches must be filled, and area must be properly rehabilitated
	Geotechnical disturbance during construction	**1**	**1**	**1**	**1**	**Low**	-Conduct the geotechnical investigation during the construction stage and follow the contour map correctly.
	Potential damage or destruction to undiscovered heritage or cultural sites in the area	**1**	**1**	**1**	**1**	**Low**	There are no known archaeological or Paleontological grounds to suspend the proposed development. In case of any material of archaeological heritage importance observed during construction/operation phase, it must be reported to the National Heritage Council.
	Spillage, stockpiles, and other construction related activities	**1**	**1**	**1**	**2**	**Moderate**	-Concrete mixing should be done on a pre-designed slabs underlined by PVC lining or previously disturbed areas -Any spillage (fuel, oil, chemical etc.). must be cleaned immediately -All construction material must be sourced off-site from commercial sources
	Impacts of temporary construction camps	**1**	**1**	**2**	**2**	**Moderate**	-Construction camps (if allowed) should be properly located away from watercourses -Provide potable ablution facilities during construction -The site used for construction camps should be rehabilitated after construction phase

SOCIO-ECONOMIC	Increase in traffic within the area is expected due to construction activities and establishment of a township.	**2**	**1**	**1**	**2**	**Moderate**	-Identify new access road to avoid congestion. -Flagmen and traffic controls should be appointed to regulate traffic flow of construction vehicles. -Appropriate road signs & markings, sidewalks for pedestrians and taxi ranks should be provided throughout the layout.
	Generation of dust	**1**	**1**	**1**	**2**	**Moderate**	-Use dust-suppressing agents -Limit Construction Vehicle speed -Avoid dust generating activities during strong wind.
	Noise created by construction activities, which might be a nuisance to residents and employees.	**1**	**1**	**1**	**1**	**Low**	-Construction should be limited to normal working days and office hours (08h00-17h00). -All employees must have PPE. -Watering of all construction haulage signage should be place at the entrance of the construction.
	Loss of Forest land	**2**	**4**	**3**	**3**	**High**	-Leave some trees -Affected vegetation should be used as firewood or timber in order to generate income for the Village Council

	New development will attract criminal activities in the area	**1**	**1**	**1**	**1**	**Low**	-All items should be stored away from the sites -Ensure that are properties are secured
	Economic development (+ve)	**4**	**2**	**1**	**3**	**High**	-Contractors should source materials from local supplier to enhance the local economy
	Employment of the local community	**4**	**4**	**2**	**3**	**Very high**	-Local laborers (especially the ones from the affected & neighboring village/residents) and local contractors (especially SMME's) should be utilized at greater extent. This should also include the youth, women, and people with disability.
	New development will increase demand water	**4**	**4**	**4**	**4**	**Very high**	-Ensure water recycling measures and provided alternative source of water i.e., rainwater harvesting.

Table 6 Potential impacts during Operation phase

ASPECT	POTENTIAL IMPACT	SIGNIFICANCE BEFORE MITIGATION					MITIGATION MEASURE
		Extent	Duration	Intensity	Probability	Significance	
BIOPHYSICAL	Alteration of existing visual perspective	**1**	**4**	**1**	**1**	**Moderate**	-plant more trees in in and around the development to enhance greenery view
	Possible surface water and groundwater pollution from leaking sewage lines or underground storage of dangerous goods.	**2**	**1**	**2**	**2**	**Moderate**	-No pollutant must be discharged directly into watercourse or underground. -Underground storage of hazardous goods should not be permitted in the proposed -Sewage lines must be maintained frequently to prevent leakages
	Impact on the natural flow of storm water and flood water	**2**	**1**	**1**	**1**	**Moderate**	-Re-strict development in the watercourse that marked: Public Open Spaces" -Maintain open space networks
SOCIO-ECONOMIC	Increase in traffic within the area and diversion of existing access roads for the community due to the new development	**2**	**4**	**1**	**1**	**Moderate**	-Ensure enough access roads and provide regular maintenance -Provide appropriate road signs & markings, sidewalks for pedestrians and taxi ranks should be provided
	Possible conflicts between the Council and adjacent farmers due to movement of livestock in town.	**2**	**4**	**4**	**3**	**Very High**	-Sensitize the local people about the animal Control Regulation/Policy.
	Increase demand of water and electricity	**2**	**4**	**4**	**4**	**Very high**	-The proposed can be considered as natural growth of the town

	Provision of housing delivery (+ve)	**4**	**4**	**4**	**4**	**Very high**	-Local people must be given the first priority.
	Employment of the local community (+ve)						Local laborers (especially the ones from the affected & neighboring village/residents) and local contractors (especially SMME's) should be utilized at greater extent. This should also include the youth, women and people with disability.
	-Provision of services next to the people (sewage, communication, etc)	**4**	**4**	**4**	**4**	**Very high**	-Consider inputs from locals

8. CONCLUSION AND RECOMMENDATIONS

The objective of the Scoping Phase was to define the range of the impact assessment and determine the need to conduct any specialist study. It is believed that these objectives have been achieved and adequately documented in the Scoping Report. All possible environment aspects have been adequately assessed and necessary control measures have been formulated to meet statutory requirements.

1.1 Assumptions and Conclusions:

- All proposed road networks will not compromise the environmental integrity of the surrounding environment.
- There are no objections or critical issues to the proposed activities.
- The findings of the Scoping Assessment are considered sufficient, and no additional specialist study is required.
- No major fatal flaws have been identified, thus, implementing this project will not have any appreciable negative impacts.

It is therefore recommended that the Environmental Commissioner do consider the findings and recommendations of this Scoping process with mitigation measures outlined in the Environmental Management Plan and subsequently, consider issuing an Environmental Clearance Certificate to authorize for the **"Township establishment of Okongo Exetnsion 3 & 4 in Okongo, Ohangwena region.**

9. REFERENCES

- GRN. (2014). 2011 Housing and Population Census Regional Profile, Ohangwena Region. Windhoek: Namibia Statistics Agency.
- GRN. (2013). 2011 Population and Housing Census Main Report. Windhoek: National Statistics Agency
- Mendelsohn, J., Jarvis, A., Roberts, C., & Robertson, T. 2002. Atlas of Namibia. New Africa Books (Pty) Ltd: Cape Town.
- Republic of Namibia: Ministry of Environment and Tourism, (2012). Environmental Impact Assessment Regulations, GG 4878, GN 29, Windhoek: MET.
- Ruppel O.C. & Ruppel-Schlichting K. 2013, Environmental Law and Policy in Namibia. OrumbondePress.na & Welwitschia Verlag Dr. A. Eckl, Essen, Windhoek, Namibia.

10. REFERENCES

APPENDIX A: List of I&APs

APPENDIX B: Proof of Consultations

APPENDIX C: Council Resolution

APPENDIX D: EMP

Appendix A: List of IAPs consulted

ORGANIZATION	CONTACT PERSON	CONTACT DETAILS
Okongo Village Council	Mr. W. Haulofu	**065288510**
	Ms. Ana Amwele	**065288510**
	Ms. Selma Nuugulu	**065288510** snuugulu@okongovc.com.na
	Ms. Frienda David	**065288510**
	Mr. Victor Nathile	**065288510**
	Ms. Maria Kaluvi	**065288510**
Town Planner	Plantek Town and Regional Planners Mr. Jan Britz	0813509810 plantek@africaonline.com.na
Ministry of Gender	Ms. Ndapewa Nghindinwa	0814952017 ndapewanghindinwa@gmail.com
Ministry of Environment, Forestry and Tourism	DoF -Okongo Mr. a. Aushona	0817590101
Roads Authority	Mr. Ashipala	0818797023
NORED	Mr. Shinana	0812525711
Residents	Matias Immanuel	mattynaukushu@gmail.com

Also see the attendance Register as part of the Proof of Consultation