

## Environmental Impact Assessment (EIA) Study

**The Proposed Construction and Operation of Iputu Private Academy in Iputu YAmungenga Village of Etayi Constituency in the Omusati Region, Namibia - Application for Environmental Clearance Certificate (ECC)**



**ECC Application No.:**

**APP-002862**

**Document Type:**

**Scoping Report**

**Version:**

**Final for Submission**

**Proponent:**

**Martha Namufhamba**

**P.O Box 55 Oshakati, Namibia**




**April 2024**

**DOCUMENT INFORMATION**

Title: Environmental Impact Assessment (EIA) Study for the Proposed Construction and Operation of liputu Private Academy in liputu YAmungenga Village of Etayi Constituency in the Omusati Region, Namibia – Application for Environmental Clearance Certificate (ECC)

**Prepared by:**

<b>Author:</b>	<b>Fredrika N. Shagama (Hydrogeologist &amp; Environmental Consultant / EAP*)</b>
<b>Qualifications:</b>	<p><b>PhD. Student: Civil Engineering (Geotechnics &amp; Hydrogeology)</b>, VSB - Technical University of Ostrava, Czech Republic</p> <p><b>MSc. Geological Engineering (<i>cum laude</i>)</b> with primary focus in Hydrogeology, VSB - Technical University of Ostrava, Czech Republic</p> <p><b>BSc. Geological Engineering</b>, VSB - Technical University of Ostrava, Czech Republic</p>
<b>Professional Affiliations:</b>	<p>International Association of Hydrogeologists (IAH) - Full Member, Membership No.139790</p> <p>Namibian Hydrogeological Association (NHA) – Member</p> <p>Environmental Assessment Professionals of Namibia (EAPAN) - Ordinary Member Practitioner (Membership No. 183)</p>
<b>Contact Details:</b>	<p>Mobile: +264 81 749 9223</p> <p>Email: <a href="mailto:eias.public@serjaconsultants.com">eias.public@serjaconsultants.com</a></p> <p>Postal Address: P. O. Box 27318 Windhoek, Namibia</p>
<b>Signature:</b>	
<b>Date:</b>	29 April 2024

**EAP\* - Environmental Assessment Practitioner**

**SERJA' STATEMENT OF INDEPENDENCE**

As the Appointed Environmental Consultant to undertake the EIA Study for the proposed construction and operation of liputu Private Academy and associated activities in liputu YAmungenga Village, Serja Hydrogeo-Environmental Consultants cc declare that we:

- do not have, to our knowledge, any information or relationship with Ms. Martha Namufohamba (the Project Proponent) or the Ministry of Environment, Forestry and Tourism (MEFT)'s Department of Environmental Affairs and Forestry (DEAF) that may reasonably have potential of influencing the outcome of this EIA Study and the subsequent Environmental Clearance Certificate (ECC) applied for.
- have knowledge of and experience in conducting environmental assessments, the Environmental Management Act (EMA) No. 7 of 2007 and its 2012 Environmental Impact Assessment (EIA) Regulation as well as other relevant national and international legislation, guidelines, policies, and standards that govern the proposed project as presented herein.
- have performed work related to the ECC application in an objective manner, even if the results in views and findings or some of these may not be favorable to the Proponent.
- have complied with the EMA and other relevant regulations, guidelines and other applicable laws as listed in this document.
- declare that we do not have and will not have any involvement or financial interest in the undertaking/implementation of the proposed project, other than remuneration (professional fees) for work performed to conduct the EIA and apply for the ECC in terms of the EIA Regulations' requirement as an Environmental Assessment Practitioner (EAP).

**Disclaimer:** Serja Hydrogeo-Environmental Consultants will not be held responsible for any omissions and inconsistencies that may result from information that was not available at the time this document was prepared and submitted for evaluation.



.....

**Signature:**

Fredrika N. Shagama: Principal Environmental Assessment Practitioner & Hydrogeologist

**Date:** 29 April 2024

**EXECUTIVE SUMMARY**

Martha Namufohamba (hereto referred to as the Proponent) proposes to construct and operate a school (liputu Private Academy (the School)) in liputu yAmungenga Village of the Etayi Constituency in the Omusati Region. The proposed School will cater for about 200 learners from Grade zero (0) to Grade seven (7) and the School will have boarding (hostel) facilities. The proposed private School will be situated about 20km northeast of Oshikuku Town, along the Oshakati - Omungwelume road at these coordinates - 17.627881, 15.622871. The proposed school and its associated facilities will cover an area of about 2,193m<sup>2</sup>.

The construction of the school and its associated infrastructure form part of the listed activities that may not be undertaken without an ECC under the Environmental Impact Assessment (EIA) Regulations, To ensure that the proposed activity is in compliant with the national environmental legislation, the project Proponent, appointed an independent environmental consultant, Serja Environment Ltd to undertake the required Environmental Assessment (EA) process and apply for the ECC on their behalf.

The application for the ECC was compiled and submitted to the competent Authority (Ministry of Environment, Forestry and Tourism (MEFT)). Upon submission of an Environmental Scoping Assessment (ESA) Report and Draft Environmental Management Plan (EMP), an ECC for the proposed project will be considered by the Environmental Commissioner at the MEFT's Department of Environmental Affairs and Forestry (DEAF).

**Proposed Project Activities**

The project will be implemented in the following phases:

- Planning and Design: The Proponent ensured that the site is legally acquired from the relevant authorities (Headman of liputu Village and Uukwambi Traditional Authority), and the land has been serviced and appropriately prepared for construction.
- Site Preparation and Construction: This phase involves the site preparation and construction of the proposed School and its associated infrastructures by a construction contractor appointed by the Proponent. The School will need classrooms, administration buildings, dining hall, ablution facilities. Construction will also include the installation of services such as water, electricity supply and sewage lines. Construction works are anticipated to take 6 to 9 months and will be limited to weekdays and normal working hours (08am and 5pm).

- Operations and Maintenance Phase: This is the phase when the School is operational with boarding students residing onsite, and educational activities occurring onsite. Maintenance of the School and its associated facilities will be done internally or outsourced to an external specialist contractor, when needed.

### **Communication with I&APs, and Means of Consultation Employed**

Communication with I&APs with regards to the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing brief information about the proposed project was compiled and hand delivered to the Ministry of Environment, Forestry and Tourism (MEFT) accompanying the ECC application, and uploaded on the MEFT (ECC) Portal for project registration and shared with registered Interested and Affected parties (I&APs).
- The EIA Study notices were published for two consecutive weeks in the *New Era* and Windhoek Observer on the 13<sup>th</sup> and 20<sup>th</sup> of September 2023. The consultation period ran from the 13<sup>th</sup> of September 2023 to the 20<sup>th</sup> of October 2023.
- The A3 size poster for public notice was compiled and pasted in liputu Village at Etenda and Rejoice bar (nearby location called liputu).
- A consultation meeting was scheduled to be held in liputu Village on the 14<sup>th</sup> of October 2023 -. Invitations was sent to stakeholders and community members including the neighbors to the site. The meeting was well attended by forty-one (41) people. Meeting minutes were taken.

**Impact identification and assessment:** Some key potential positive and negative impacts were identified by the Environmental Consultant based on project experience and comments as well as issues raised by I&APs during the consultation meeting.

The potential impacts were described and assessed in this Report and mainly have a medium rating significance pre-implementation of mitigation measures. The management and mitigation measures to the impacts have been provided in the Draft EMP (in a form of action measure) for implementation by the Proponent, their contractors, and workers to avoid and/or minimize their significance on the environmental and social components. The effective implementation of the recommended management and mitigation measures accompanied by monitoring will particularly see the reduction in the significance of adverse impacts that cannot be avoided completely (from slightly high to medium rating and then low rating until negligible level) as follows:

- Physical disturbance to the site soils (during construction): pre-mitigation – medium and post-mitigation – low,
- Environmental pollution (littering): *pre-mitigation – medium rating and post-mitigation – low rating,*

- Occupational and community health and safety risks (during construction and maintenance): *pre-mitigation – medium rating and post-mitigation – low rating,*
- Visual and aesthetic: *pre-mitigation – medium rating and post-mitigation – low rating,*
- Noise from construction activities: *pre-mitigation – medium rating and post-mitigation – low rating,* and
- Archaeological and Heritage resources: *pre-mitigation – medium rating and post-mitigation – low rating.*

The Scoping assessment of the EIA Study was deemed sufficient and concluded that no further detailed assessments are required to the ECC application for the proposed School establishment.

Serja Consultants are confident that the potential negative impacts associated with the proposed project can be managed and mitigated by the effective implementation of the recommended management and mitigation measures and with more effort and commitment put on monitoring the implementation of these measures.

It is therefore, recommended that the proposed School be granted an ECC, and provided that:

- All the management and mitigation measures provided herein are effectively and progressively implemented.
- All required permits, licenses and approvals for the proposed activities should be obtained as required and ensuring compliance with associated specific legal requirements.
- Transparency in communication and continued engagement with the stakeholders, specifically the Traditional Authority, regulatory authorities (MAEC) as well as other key stakeholders should be maintained before and throughout the project.
- The Proponent, their project workers or contractors comply with the legal requirements governing their project and its associated activities and ensure that project permits and or approvals required to undertake specific site activities are obtained and renewed as stipulated by the issuing authorities.
- Site areas where earthworks are carried out should be rehabilitated, as far as practicable. This includes the levelling of stockpiled topsoil, backfilling of construction trenches and pits.
- The EMP implementation should be checked and done by the responsible team member onsite (Environmental Control Officer (ECO) or Health, Safety & Environmental (HSE) Officer) and audited by an Independent Environmental Consultant on an annual basis to compile Environmental Monitoring (Audit) Reports. These reports are to be submitted to the DEAF – This will be required by the Environmental Commissioner (as part of the ECC conditions).

It can be concluded that some of the identified negative impacts may be significant, particularly during the construction phase, but, they would not hinder the proposed establishment of the School. However, the

recommended measures should be effectively implemented and monitored. This is to ensure that the significance of adverse impacts is reduced to acceptable ratings, i.e., from high to medium and then low and or from medium to low and eventually to a negligible significance rating. The effectiveness of the implementation of the management and mitigation measures and EMP compliance will be done by a responsible Officer and audited by an Independent Environmental Consultant on an annual basis. This is done so that recommended measures can be tracked via Bi-Annual Environmental Monitoring exercises and documented in the monitoring reports to the Environmental Commissioner.

The monitoring of EMP implementation will not only be done to ensure that the impacts significance is reducing and or maintain low significance rating but to also ensure that all potential impacts that might arise during implementation are properly identified in time and addressed immediately.

## TABLE OF CONTENTS

<b>DOCUMENT INFORMATION</b> .....	i
<b>EXECUTIVE SUMMARY</b> .....	iii
<b>List of Figure</b> .....	viii
<b>List of Tables</b> .....	viii
<b>List of Appendices</b> .....	viii
<b>List of Abbreviations</b> .....	ix
<b>Glossary (Key Terms)</b> .....	x
<b>1 INTRODUCTION</b> .....	1
1.1 Project Background and Location .....	1
1.2 The Need and Desirability of the Proposed Project .....	2
1.3 The Need for an EIA and Environmental Clearance Certificate (ECC) .....	2
1.4 Appointed Independent Environmental Consultant.....	3
1.5 Application for the Environmental Clearance Certificate .....	3
1.6 Scope of Work and Report Contents .....	4
<b>2 DESCRIPTION OF THE PROPOSED PROJECT ACTIVITIES</b> .....	5
2.1 Planning and Design .....	5
2.2 Site Preparation and Construction .....	6
2.2.1 Required Resources and Services.....	6
2.3 Operations and Maintenance Phase.....	8
2.4 Decommissioning and Rehabilitation of Disturbed Areas Onsite .....	8
<b>3 PROJECT ALTERNATIVES</b> .....	9
3.1 The "No-go" Alternative.....	9
3.2 Location of the School.....	9
<b>4 APPLICABLE LEGAL FRAMEWORK</b> .....	10
4.1 National and Local Legal Framework and Policies .....	10
4.1.1 Environmental Management Act No. 7 of 2007 .....	10
4.2 International Policies, Principles, Standards, Treaties and Conventions.....	14
<b>5 THE RECEIVING ENVIRONMENT</b> .....	15
5.1 Fauna .....	15
5.2 Flora .....	15
5.3 Climate .....	16
5.4 Topography, Soil, Geology and Geohydrology .....	17
5.5 Social and Economic Environment .....	19
5.5.1 Demography.....	19



5.5.2	Economic Activities .....	19
6	PUBLIC CONSULTATION AND PARTICIPATION PROCESS .....	20
6.1	Pre-identified and Registered Interested and Affected Parties (I&APs) .....	20
6.2	Communication with I&APs, and Means of Consultation Employed.....	20
6.3	Feedback and Issues raised by the Stakeholders (I&APs).....	22
7	IMPACTS IDENTIFICATION, ASSESSMENT AND MEASURES .....	23
7.1	Identification of Potential Impacts .....	23
7.1.1	Positive impacts .....	23
7.1.2	Adverse (Negative) impacts .....	23
7.2	Impact Assessment Methodology .....	24
7.3	Impact Significance .....	25
7.4	Description and Assessment of Potential Impacts.....	26
8	RECOMMENDATIONS AND CONCLUSIONS.....	31
9	LIST OF REFERENCES .....	34

### List of Figure

Figure 1-1:	Locality map of Iiputu Private Academy (School) in the Omusati Region .....	1
Figure 2-1:	The preliminary hand-written layout of the Iiputu Private School .....	5
Figure 2-2:	The site area planned for the Private School .....	6
Figure 5-1:	The vegetation type found on the site area .....	16
Figure 5-2:	The climatic chart of Omusati Region (source: <a href="https://weatherandclimate.com/namibia/omusati">https://weatherandclimate.com/namibia/omusati</a> ) .....	17
Figure 5-3:	The topography map of the proposed site area .....	18
Figure 5-4:	The hydrological map around the proposed site .....	18
Figure 6-2:	Public notice posters pasted at the cuca shop in Iiputu Village .....	21
Figure 6-2:	Consultation meeting in progress at Iiputu Village on the 14 <sup>th</sup> of October 2023 .....	21

### List of Tables

Table 4-1:	List of applicable national legislation for the proposed project and associated activities .....	11
Table 4-2:	Other international treaties and conventions governing the proposed project activities .....	14
Table 6-1:	Summary of issues and comments noted during the consultation meeting and responses .....	22
Table 7-1:	Criteria used for impact assessment (extent, duration, intensity and probability) .....	24
Table 7-2:	Impact significance rating scale .....	26
Table 7-3:	The Description and Assessment of the impacts of the School construction and operations activities on the environment .....	27

### List of Appendices

**Appendix A:** Draft Environmental Management Plan (EMP)

**Appendix B:** Curriculum Vitae (CV) of the responsible Environmental Assessment Practitioner (EAP)

**Appendix C:** Proof of Stakeholder Consultation and Engagement

C1 – Background Information Document (BID)

C2 - EIA Notification in the newspapers (*New Era* and *Windhoek Observer*)

C3 – Minutes from the Consultation and Engagement Meeting (and register)

**Appendix D:** Land Use Consent letter issued by liputu headman and Uukwambi Traditional Authority**List of Abbreviations**

Abbreviation	Meaning
BID	Background Information Document
DEAF	Department of Environmental Affairs and Forestry
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
EAPAN	Environmental Assessment Professionals of Namibia
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GG	Government Gazette
GN	Government Notice
I&APs	Interested and Affected Parties
MEAC	Ministry of Education, Arts and Culture
MEFT	Ministry of Environment, Forestry and Tourism
NHC	National Heritage Council (NHC) of Namibia
NORED	Northern Namibia's Regional Electricity Distributor
PPE	Personal Protective Equipment
Reg, S	Regulation, Section

**Glossary (Key Terms)**

<b>Term</b>	<b>Definition</b>
Alternative	A possible course of action, in place of another that would meet the same purpose and need of the proposal.
Baseline	Work done to collect and interpret information on the condition/trends of the existing environment.
Biophysical	The part of the environment that does not originate with human activities (e.g., biological, physical and chemical processes).
Cumulative Impacts / Effects Assessment	In relation to an activity, means the impact of an activity that in it may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Decision-maker	The person(s) entrusted with the responsibility for allocating resources or granting approval to a proposal
Ecological Processes	Processes which play an essential part in maintaining ecosystem integrity. Four fundamental ecological processes are the cycling of water, the cycling of nutrients, the flow of energy and biological diversity (as an expression of evolution).
Environment	As defined in Environmental Management Act - the complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including – (a) the natural environment that is land, water, and air; all organic and inorganic matter and living organisms and (b) the human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values.
Environmental Management Plan (Draft EMP)	As defined in the EIA Regulations (Section 8(j)), a plan that describes how activities that may have significant environments effects are to be mitigated, controlled, and monitored.
Interested and Affected Party (I&AP)	In relation to the assessment of a listed activity includes - (a) any person, group of persons or organization interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity.

Term	Definition
Fauna and Flora	The animals and plants found in an area.
Mitigate	Practical measures to reduce adverse impacts.
Mitigation	The purposeful implementation of decisions or activities that are designed to reduce the undesirable impacts of a proposed action on the affected environment
Monitoring	Activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends).
Proponent	Organization (private or public sector) or individual intending to implement a development proposal. As defined in the Environmental Management Act, the Proponent is a person who proposes to undertake a listed activity.
Public Consultation/Involvement	A range of techniques that can be used to inform, consult or interact with stakeholders affected by the proposed activities.
Protected Area	Refers to a protected area that is proclaimed in the Government Gazette according to the Nature Conservation Ordinance number 4 of 1975, as amended.
Scoping	An early and open activity to identify the impacts that are most likely to be significant and require specialized investigation during the EIA work. Can, also be used to identify alternative project designs/sites to be assessed, obtain local knowledge of site and surroundings, and prepare a plan for public involvement. The results of scoping are frequently used to prepare a Terms of Reference for the specialized input into full EIA.
Significant impact	Means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment

# 1 INTRODUCTION

## 1.1 Project Background and Location

Education in Namibia is mandatory between the ages of 6 and 16, thus, primary education is crucial for children development (NIED 2015). There are approximately more than 1,954 schools in Namibia of which 246 are privately owned of which in Omusati region, there are 279 state school and 18 private school (Ministry of Education, Arts and Culture, 2022). Due to an increase in population and demand for quality education, thus, Martha Namufohamba (hereto referred to as the Proponent) proposes to construct and operate a school (Iiputu Private Academy, the School) in Iiputu yAmungenga Village of the Etayi Constituency in the Omusati Region.

The proposed School will cater for about 200 learners from Grade zero (0) to Grade seven (7) and the School will have boarding (hostel) facilities. The proposed private School will be situated about 20km northeast of Oshikuku Town and alongside the Oshakati - Omungwelume road at these coordinates - 17.627881, 15.622871 as shown on the locality map in Figure 1-1. The School and its associated facilities will cover an area of about 2,193m<sup>2</sup>.



Figure 1-1: Locality map of Iiputu Private Academy (School) in the Omusati Region

## 1.2 The Need and Desirability of the Proposed Project

Education is the greatest equalizer and it forms the foundation of any society. The establishment and operation of Iiputu Private School is in line with Article 20 (1) of the Namibian Constitution states that Primary education shall be compulsory, The Sustainable Development Goal number 4 states that : Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all .Additionally, Vision 2030, which envisions an Industrialised Namibia developed by its own human resources, the 5th National Development Plan (NDP5) , and the Harambee Prosperity Plan (HPP)'s pillar on infrastructure development.

Children of today are regarded as future leaders thus they need quality education for them to acquire knowledge on various fields of education such as people, literature, history, mathematics, politics, and other numerous subjects. It is also important for the economic, social, and political growth and development of society in general.

## 1.3 The Need for an EIA and Environmental Clearance Certificate (ECC)

The proposed construction and operation of the School will entail site clearance, erection of project structures and related infrastructures. Although not specifically the School, these associated activities are among the listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC) from the Environmental Commissioner as per the Environmental Management Act (EMA) No. 7 of 2007 and its Environmental Impact Assessment (EIA) Regulations (Government Gazette No. 4878 Government Notice No. 30) of 2012. Thus, an EIA Study is required before project implementation.

The relevant listed activities as per EIA regulations are:

- Listed Activity 1: Energy Generation, Transmission and Storage Activities - *Construction of facilities*  
(a) *For the transmission and supply of electricity.*
- Listed Activity 10.1 Infrastructure - *The construction of*  
(a) *Oil, water, gas and petrochemical and other bulk supply pipelines (to supply the School).*

The EIA process will entail baseline assessment of the biophysical & social environment and public consultation. The findings of the EIA process are then incorporated into an EIA Report and a Draft EMP will also be developed for the proposed project activities. The ECC application is submitted to and registered with the Ministry of Environment, Forestry and Tourism (MEFT) as the Environmental Regulatory Authority. Once the ECC is issued by the Environmental Commissioner, the Proponent will plan for the activities and thereafter commence with the construction activities and subsequently, operations and maintenance.

The purpose of the EIA Study and subsequent issuance of the ECC is therefore to ensure that the proposed project activities are undertaken in an environmentally & socially friendly and sustainably manner, through the effective implementations of recommended environmental management measures to minimize the adverse identified impacts while maximizing the positive impacts.

#### **1.4 Appointed Independent Environmental Consultant**

To comply with the EMA and its Regulations and ensure environmental management, protection, and sustainability, the Proponent appointed Serja Hydrogeo-Environmental Consultants CC, Independent Environmental Consultants to apply for the ECC and conduct the required Environmental Assessment Process, which includes Public Consultation and prepare the Environmental Assessment Report and Environmental Management Plan (EMP) – Appendix A.

The EIA process was led by Ms. Fredrika Shagama. Ms. Shagama is a qualified and experienced Hydrogeologist and EAPAN registered Environmental Assessment Practitioner (EAP) by training and experienced with over 8 years' experience in Groundwater and Environmental. The public consultation and engagement was done by assistant EAPs and local community members under the supervision of Ms. Shagama. The Scoping Report was compiled by Ms. Shagama. Her CV is attached hereto as Appendix B.

#### **1.5 Application for the Environmental Clearance Certificate**

The application for the ECC process was done as follows:

- Preparation of prepared Background Information Document (BID) for the proposed project,
- Launching of the ECC application on the ECC Portal of the Ministry of Environment, Forestry and Tourism (MEFT) with the Proponent details (accompanied by the BID) for project registration purposes and obtaining a MEFT application / reference number (APP-002862),
- Completion of the Form 1 (Section 32) of the EIA Regulations with the required project and Proponent information,
- Submission of the printed hard copy of the ECC application (with affixed NAD300 revenue stamps as application fees attached hereto) is submitted to the MEFT. The MEFT's date stamped copy of the ECC application is uploaded on the ECC Portal as proof of application and payment.

The next component of the ECC application was to undertake an EIA process, which entails baseline assessment of the biophysical and social environments as well as public/stakeholder consultation and engagement. The findings of the EIA process are then incorporated into a Scoping Report and a Draft EMP is also developed for the mitigation of potential adverse impacts anticipated from the proposed project activities. These documents are then submitted to the Environmental Commissioner at MEFT's Department of Environmental Affairs and Forestry (DEAF) for evaluation and consideration of the ECC.

## 1.6 Scope of Work and Report Contents

This Study has been conducted according to the EMA No. 7 of 2007, and its 2012 EIA Regulations as mentioned in the preceding subsections, i.e., the proposed project may not be undertaken without an ECC. Therefore, the process has been undertaken as required and guided by the Regulations.

This Report has been compiled as a required output of an environmental assessment process. The EIA Report, together with the EMP and all its appendices will be submitted to the DEAF.

The document (Report) covers the following chapters or sections, in addition to the introductory chapter:

- Project description and associated activities - (Chapter 2).
- Project alternatives considered (that were found to be environmentally friendly and technically feasible) - Chapter 3).
- The legal requirements governing the proposed project and its related activities, i.e., the legislations that the proposed project must comply with (Chapter 4).
- The relevant environmental and social baseline of the project area - Chapter 5.
- The public consultation & engagement process undertaken to inform, invite and engage the public (stakeholders and interested & affected parties) on the proposed project- Chapter 6.
- The assessment of identified potential impacts associated with the proposed project (Chapter 7) - This chapter presents both the positive, negative (adverse) and cumulative impacts, assessment methodology and the assessment of the negative impacts. The mitigation measures in the form of management action plans are provided in the Draft EMP.
- The recommendations and conclusions to the environmental assessment under Chapter 8.
- The data sources (literature/references) consulted for the assessment are listed under Chapter 9.

Based on the information provided by the Proponent and the EAP's experience, description of the project activities is presented under the next chapter.





## 2.2 Site Preparation and Construction

This phase involves the site preparation and construction of the proposed School and its associated infrastructures by a construction contractor appointed by the Proponent. The School will need classrooms, administration buildings, kitchen and dining hall, hostel and ablution facilities. Construction will also include the installation of services such as water, electricity supply and sewage lines.

Construction works are anticipated to take 6 to 9 months and will be limited to weekdays and normal working hours (08am and 5pm).

The proposed site for the School is not a Greenfield but a site that was previously used as a road construction camp centre during the construction of one of the local roads in the liputu area - Figure 2-2. Therefore, through the construction contractor for the School, the Proponent will prepare the site to be suitable for the establishment of the School.



Figure 2-2: The site area planned for the Private School

### 2.2.1 Required Resources and Services

The following services and infrastructure as provided below will be required for the project activities:

- Human resources and accommodation: During the construction and operation of the proposed School, more than 40 people will be employed, comprising administrative, caretaking, and educational staff.  
Construction works Accommodation: During the construction of the proposed project, workers will be accommodated on-site in tented camps.
- Boarding Students Accommodation: This is where the learners will be accommodated. The hostel will comprise of two (2) blocks for girls and boys and each block will have fifteen (15) units.
- Dining Hall: This hall will provide fully-fledged dining facilities where meals of the learners will be served.
- Working Space (Administration and Control): Temporary site offices will be erected on-site (subject to the approval of the custodian/authority).
- School Administration Offices: This is where the school reception, principal and teachers office will be based. Additionally, there will be a boardroom where teachers will be conducting their meetings.
- Class room: This is where the teaching and learning activities will be taking place. There will be five (5) blocks with 24 units. (The Units will comprise of classrooms, library, computer lab, storerooms, science lab and art and design room)
- Water supply: Water for construction will be sourced from the tap (NamWater) at the site. About 7,000 litres of water per month will be required for the construction. Therefore, arrangements will be made with NamWater to supply the School.
- Water supply for operations: approximately 8,500 litres of water will be used per day. This includes cooking, bathing and other general uses.
- Power supply: during construction, power will be supplied by generators, whereas during the operational phase, the School will be connected to the power grid (transformer) by NORED at the side. An application for the connection in the School from the transformer on the site will be made by the Proponent to reach an agreement with the NORED office at Oshikuku Town, Omusati Region.
- Fuel Supply (machinery and equipment): it is anticipated that there will fuel onsite during construction works to refuel project machinery and vehicles.
- Waste management: the different waste will be handled as follows:
  - Sewage: A portable toilet will be provided onsite during construction and emptied according to manufacturers' instructions. For the operational phase, there will be flushing toilets to be used by the School learners, staff and visitors.
  - General and domestic waste: Solid waste containers will be made available onsite for waste storage during construction and operational phases. The waste will be disposed of at the nearest approved solid waste management facility in the Region.

- Hazardous waste: All vehicles, machinery and fuel consuming equipment onsite will be provided with drip trays to capture potential fuel spills and waste oils.  
The waste fuel/oils will be carefully stored in a standardized container to be disposed of at the nearest approved hazardous waste management facility in the country.
- Health and Safety: Adequate and appropriate Personal Protective Equipment (PPE) will be provided to all construction personnel while on and working onsite. At minimum, two fully-equipped first aid kits will be readily available onsite and 2 to 3 personnel trained on administering first aid.
- Potential Accidental Fire Outbreaks: A minimum of two well-serviced fire extinguishers will be readily available onsite during construction and each building will be required to have a fire extinguisher for the operational phase.

### **2.3 Operations and Maintenance Phase**

This is the phase when the School is operational with boarding students residing onsite, and educational activities occurring onsite. Maintenance of the School and its associated facilities will be done internally or outsourced to an external specialist contractor, when needed.

### **2.4 Decommissioning and Rehabilitation of Disturbed Areas Onsite**

Once construction works are completed, the contractor will be required to ensure that the site is left in a responsible and environmentally friendly state. Therefore, the contractor will do the following:

- Dismantle and remove all infrastructures from the project site that will no longer be needed for operations,
- Carry away all construction equipment and vehicles,
- Clean up of site working areas and remove all generated solid waste to the nearest approved waste management facility (as per agreement with the selected local authority),
- Backfill of all trenches excavated as part of construction activities and no longer required further, thus, ensuring that they do not pose a risk to both people onsite, and
- Level stockpiled topsoil to ensure that the disturbed land sites are left close to their original state as much as possible.

It is not anticipated that the School will be decommissioned in the future due to the constant need to have access to good and quality private education in the area.

The next chapter is the presentation different and relevant alternatives considered for the project activities.

### 3 PROJECT ALTERNATIVES

Alternatives are defined as the “different means of meeting the general purpose and requirements of the activity” (EMA, 2007). This section will highlight the different ways in which the project can be undertaken and to identify the alternative that will be the most practical, but least damaging to the environment is identified.

Once the alternatives have been established, these are examined by asking the following three questions:

- *What alternatives are technically and economically feasible?*
- *What are the environmental effects associated with the feasible alternatives?*
- *What is the rationale for selecting the preferred alternative?*

The alternatives considered for the proposed project are discussed below.

#### 3.1 The "No-go" Alternative

In considering the proposed activity and its benefits to the community and country at large, the no-go option is not a preferred option.

The “No-go” alternative is the option of not proceeding with the activity, which typically implies a continuation of the status quo. This would mean, in the area of liputu yAmungenga Village there will be no access to quality education, no employment will be provided during the construction and operation phase, thus, no economic growth in the Village.

In considering the proposed activity and its benefits to the local communities, the no-go option is not a preferred option for this project, although, in the case where parts of the project site are considered environmentally sensitive and/or protected, one or several sections of the site may be identified as no-go zones.

#### 3.2 Location of the School

The location of the proposed school is determined by the flatness of the area and it is easily accessible as it is near the tarred road. Therefore, finding an alternative location for the proposed school is not possible.

## 4 APPLICABLE LEGAL FRAMEWORK

The project's activities or some of them may be regulated and governed by certain legal or policies. Therefore, it is necessary to review and consider these legislations and legal requirements. These legal requirements are either on a local (institutional), national (Namibian) and international legislation, policies, guidelines, etc. This review serves to inform the project Proponent, Interested and Affected Parties, and the decision-makers at the DEAF of the requirements and expectations, as laid out in terms of these instruments, to be fulfilled to establish the proposed School construction and operations activities.

### 4.1 National and Local Legal Framework and Policies

#### 4.1.1 Environmental Management Act No. 7 of 2007

The Environmental Management Act No.7 of 2007 and its 2012 EIA Regulations aims to ensure that the potential impacts of the development on the environment are considered carefully and in good time; that all interested and affected parties have a chance to participate in the environmental assessments and that the findings of the environmental assessments are fully considered before any decisions are made about activities which might affect the environment.

This scoping assessment was carried out according to the EMA and the 2012 EIA Regulations (GG No. 4878 GN No. 30). The Act requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). It also details principles which are to guide all EAs.

The EMA has stipulated requirements to complete the required documentation to obtain an Environmental Clearance Certificate (ECC) for permission to undertake certain listed activities. The relevant listed activities as per EIA regulations are:

- Listed Activity 1: Energy Generation, Transmission and Storage Activities - Construction of facilities
  - (a) For the transmission and supply of electricity.
- Listed Activity 10.1 Infrastructure - The construction of
  - (a) Oil, water, gas and petrochemical and other bulk supply pipelines (to supply the School).

The EIA Regulations GN 28-30 (GG 4878) details requirements for:

- Public consultation within a given environmental assessment process (GN 30 S21).
- What should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).

Other applicable legal framework and policies relevant to the proposed project are presented in Table 4-1.

Table 4-1: List of applicable national legislation for the proposed project and associated activities

Legislation / Policy / Guideline	Relevant Provisions	Implications for the project activities
The Constitution of the Republic of Namibia, 1990 as amended	<p>The Constitution of the Republic of Namibia (1990 as amended) addresses matters relating to environmental protection and sustainable development. Article 91(c) defines the functions of the Ombudsman to include:</p> <p>“...the duty to investigate complaints concerning the over-utilisation of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia...”</p> <p>Article 95(l) commits the state to actively promoting and maintaining the welfare of the people by adopting policies aimed at the:</p> <p>“...Natural resources situated in the soil and on the subsoil, the internal waters, in the sea, in the continental shelf, and in the exclusive economic zone are property of the State.”</p>	<p>By implementing the environmental management plan, the establishment will be in conformant to the constitution in terms of environmental management and sustainability.</p> <p>Ecological sustainability will be main priority for the proposed development.</p>
Traditional Authority Act No. 25 of 2000	<p>The Act also stipulates that Traditional Authorities (TAs) should ensure that natural resources are used on a sustainable basis that conserves the ecosystem. The implications of this Act are that TAs must be fully involved in the planning of land use and development for their area. It is the responsibility of the TA's customary leadership, the Chiefs, to exercise control on behalf of the state and the residents in their designated area.</p>	<p>The proposed private school is located in the communal land under the Uukwambi Traditional Authority (TA). Therefore, they should be consulted throughout the Project.</p>
Electricity Act 4 of 2007	<p>Requires that any generation and or distribution complies with laws relating to health, safety and environmental standards (s 18(4)(b))</p>	<p>Obliges the Proponent to comply with all relevant provisions of the EMA and its regulations when installing electrical connections to the project.</p>

Legislation / Policy / Guideline	Relevant Provisions	Implications for the project activities
Basic Education Act, 2020	Promote and regulate free and compulsory basic education.	A person may not provide basic education at a private school unless the school is registered in terms of section 76.
Water Act 54 of 1956	<p>The Water Resources Management Act 11 of 2013 is presently without regulations; therefore, the Water Act No 54 of 1956 is still in force:</p> <p>Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duty of care to prevent pollution (S3 (k)).</p> <p>Provides for control and protection of groundwater (S66 (1), (d (ii)).</p> <p>Liability of clean-up costs after closure/abandonment of an activity (S3 (l)). (l)).</p>	The protection (both quality and quantity/abstraction) of water resources should be a priority.
National Heritage Act No. 27 of 2004	To provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.	The necessary management measures and related permitting requirements must be taken. This done by informing the National Heritage Council of Namibia. A Chance Finds Procedure provided to the Draft EMP should be implemented upon discovery of archaeological and heritage resources.
The National Monuments Act (No. 28 of 1969)	The Act enables the proclamation of national monuments and protects archaeological sites.	
Soil Conservation Act (No 76 of 1969)	The Act makes provision for the prevention and control of soil erosion and the protection, improvement and conservation of soil, vegetation and water supply sources and resources, through directives declared by the Minister.	Duty of care must be applied to soil conservation and management measures must be included in the EMP.



Legislation / Policy / Guideline	Relevant Provisions	Implications for the project activities
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 should ensure compliance with the provisions of these legal instruments.
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.	
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers.	
Atmospheric Pollution Prevention Ordinance (1976)	This ordinance provides for the prevention of air pollution and is affected by the Health Act 21 of 1988. Under this ordinance, the entire area of Namibia, apart from East Caprivi, is proclaimed as a controlled area for the purposes of section 4(1) (a) of the ordinance.	The proposed project and related activities should be undertaken in such a way that they do not pollute or compromise the surrounding air quality.
Hazardous Substance Ordinance, No. 14 of 1974	The ordinance provides for the control of toxic substances. It covers manufacture, sale, use, disposal and dumping as well as import and export. Although the environmental aspects are not explicitly stated, the ordinance provides for the importing, storage, and handling.	The Proponent should handle and manage the use of hazardous substances onsite so that they do not harm or compromise the site environment
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.	Mitigation measures should be provided for, if the roads and traffic impact cannot be avoided.

Legislation / Policy / Guideline	Relevant Provisions	Implications for the project activities
Labour Act (No. 6 of 1992)	Ministry of Labour, Industrial Relations and Employment Creation is aimed at ensuring harmonious labour relations through promoting social justice, occupational health and safety and enhanced labour market services for the benefit of all Namibians. This ministry insures effective implementation of the Labour Act No. 6 of 1992.	The Proponent should ensure that the proposed activities do not compromise the safety and welfare of workers.

## 4.2 International Policies, Principles, Standards, Treaties and Conventions

The other international statutes such as policies, standards and conventions that may govern the project activities are provided under Table 4-2 below.

**Table 4-2: Other international treaties and conventions governing the proposed project activities**

Statue	Relevant Provisions	Implications for the project / Requirements
Convention on Biological Diversity 1992	Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use.  Promote the protection of ecosystems, natural habitats, and the maintenance of viable populations of species in natural surroundings.	Removal of vegetation cover and destruction of natural habitats should be avoided and where not possible minimised
Stockholm Declaration on the Human Environment, Stockholm (1972)	It recognizes the need for: "a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.	Protection of natural resources and prevention of any form of pollution.

In addition to the project description, alternatives, and legal framework, it is also important to note that the proposed project activities will be undertaken in a specific environment, in terms of receiving environment. Therefore, understanding these existing environmental features before the project activities, is crucial for the assessment of the potential impacts stemming from the project activities on the features.

## 5 THE RECEIVING ENVIRONMENT

The proposed School will be constructed and operated in in specific environment. Therefore, understanding the pre-project conditions of the environment will aid in describing the status quo of environmental conditions prior to project implementation. The baseline information also aids in identifying the sensitive environmental features and how best suitable management and mitigation measures can be recommended for implementation. The selected baseline environment information of the site area is provided below.

The baseline information presented below is sourced from site visit (done on the 14<sup>th</sup> of October 2023), online sources ranging from old reports, books and publishing as well as other relevant research information in the broader area. The project baseline that is deemed necessary to the project activities are as follows.

### 5.1 Fauna

The project area is located within the village and most people are practising subsistence farming. The livestock farmed with are large stock animal such as cattle and few keeps donkeys and small stock such as goats, sheep and chicken. However, due to the limited rocks occurrence in the area, there are few reptiles and ground dwelling animals.

### 5.2 Flora

The project area is located in Omusati Region and the region 'name Omusati means Mopane. Thus Mopate tree (*Colophosporum mopane*) is one of the dominant species in Omusati region. Plant species such as makalani palms (*Hyphaena petestian*) 'omilunga', fig trees (*Ficus carica*) 'omikwiyu', baobab trees (*Adansonia digitata*) marula trees (*Sclerocarya birrea*) 'omigongo' are domininta within the surrounding area. The piece of land were the project is earmarked for the proposed school, there are few plants such as Acacia Karoos and grass species such as *Cynodon dactylon*, *Helichrysum candolleanum*, *Eragrostis trichophora* and *Tribulus terrestris*. Some of the vegetation around the project site are shown in Figure 5-1.



**Figure 5-1: The vegetation type found on the site area**

### **5.3 Climate**

The climate of Omusati Region is described as a semi-arid climate with very hot summers and warm winters (with warm days and cold nights). Average annual temperatures are usually more than 21 °C, with average maximum temperatures between 28°C and 31 °C and average minimum temperatures between 21 °C and 24°C. Figure 5-2 shows a climatic (rainfall and temperature) chart for the Omusati Region.

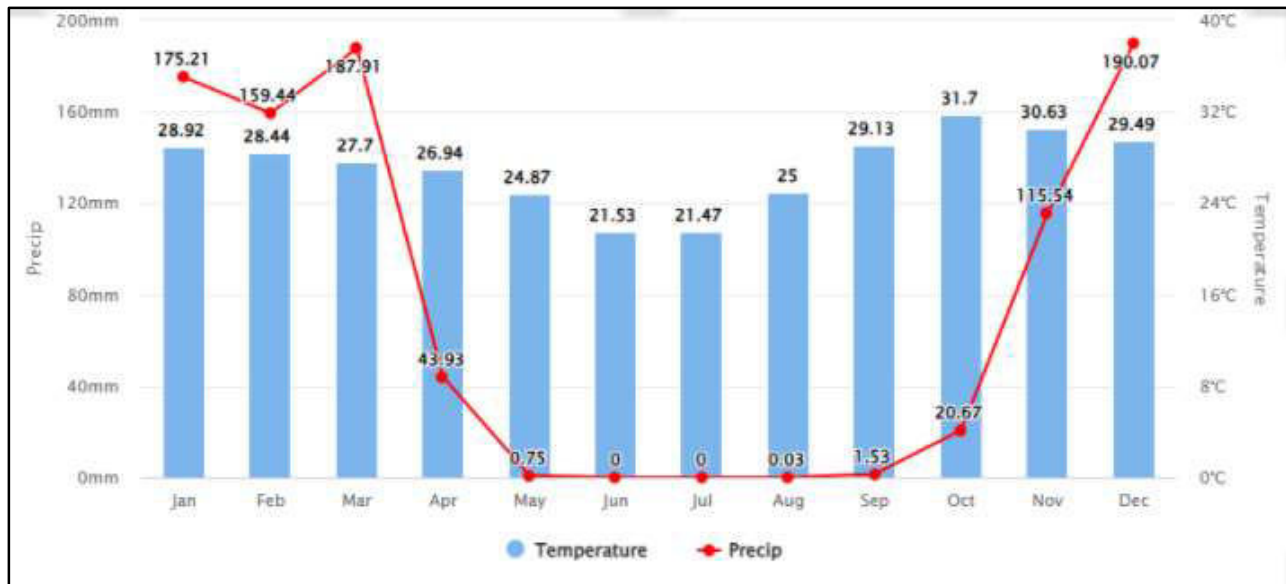


Figure 5-2: The climatic chart of Omusati Region (source: <https://weatherandclimate.com/namibia/omusati>)

#### 5.4 Topography, Soil, Geology and Geohydrology

The proposed project will be situated in the Ovambo Basin at an altitude between 1,055 and 1,216 meter above the sea level as shown in Figure 5-3.

Namibia has a unique and ancient geological history with great rock formation and the Ovambo basin is no exception (Kangombe, 2010). The Region lies on old continental base of graphite, gniesses, and volcanic rock. However most of this rock lies thousands of meters below the current land scape (Mendelsohn, Obeid, & Roberts, 2000).

The soil in the central-northern Namibia have been deposited by wind and water. The soils are typical of arid regions with low fertility due to low organic matter that is returned to the soil (Mendelsohn et al, 2000). A large proportion of the soils in this area are broadly categorized as Arenosols or sandy soils (Mendelsohn et al. 2002; Erkkila & Siiskonen 1992).The soils observed are light-brown and grey sandy-loam soils covered by grass.

In terms of geohydrology, the site area is characterized by porous aquifers as shown in Figure 5-4. There is a significant ephemeral river located about 7km east of the site.

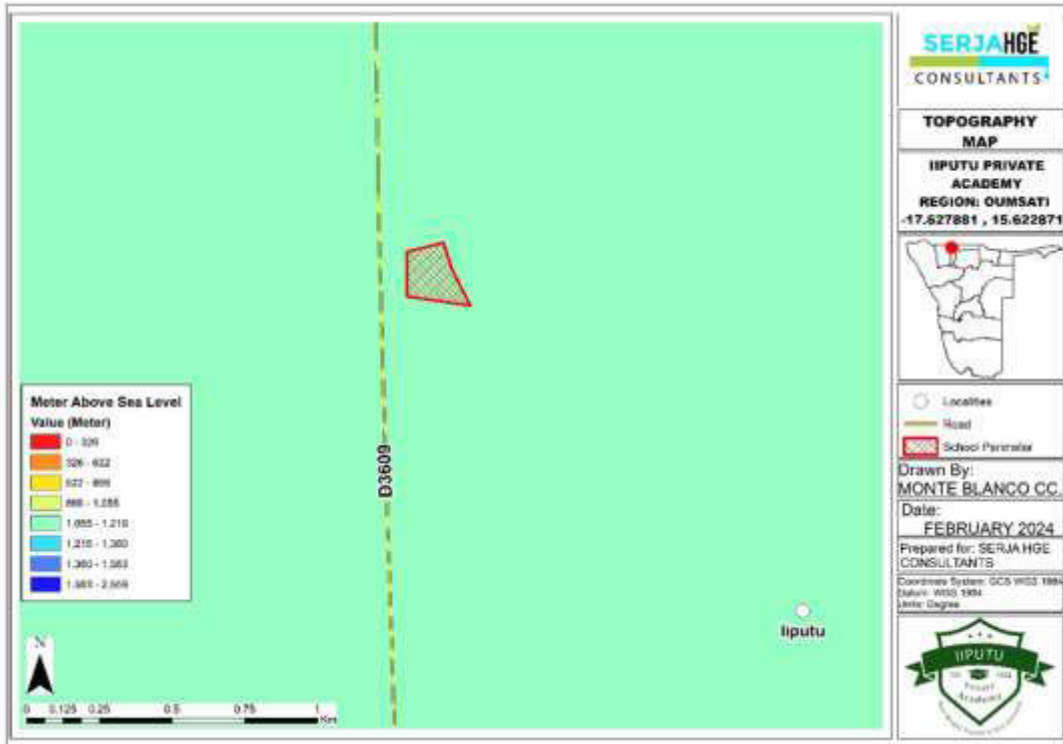


Figure 5-3: The topography map of the proposed site area

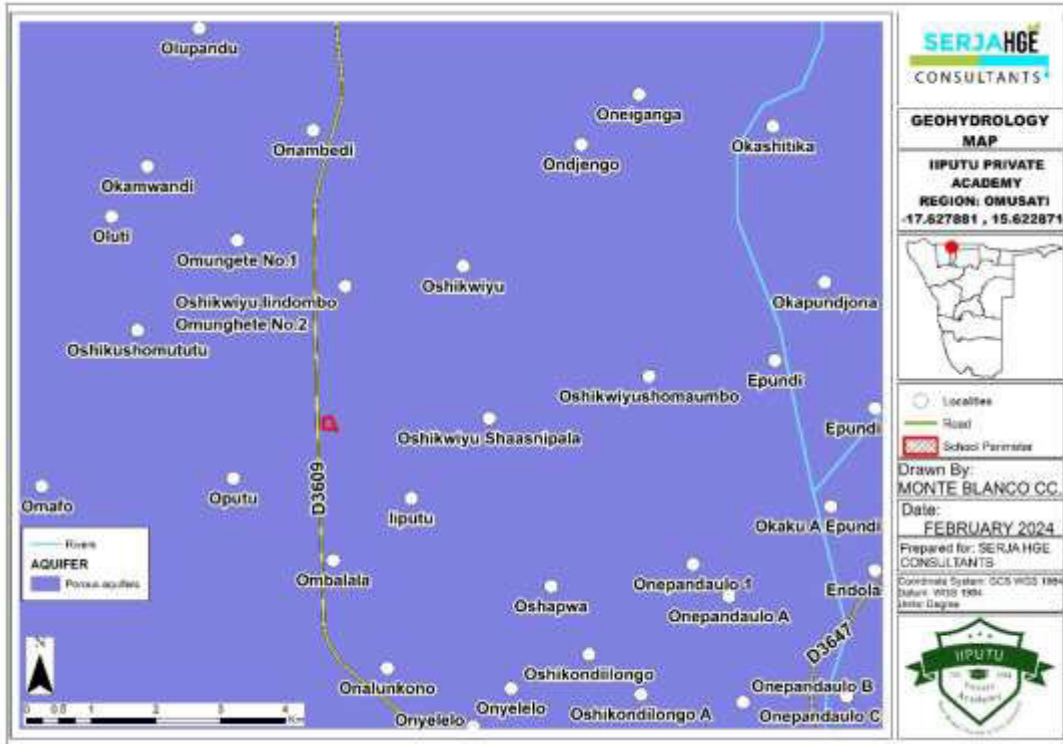


Figure 5-4: The hydrological map around the proposed site

## **5.5 Social and Economic Environment**

### **5.5.1 Demography**

Omusati Region covers an approximate area of 26,551 km<sup>2</sup> of the total Namibian land and is the second home to roughly 243,166 residents (133,621 females and 109,545 males) (Census, 2011) which signifies 9.1% of the Namibian population. As earlier indicated, the Region consists of twelve (12) Constituencies, three Settlements, namely Ogongo, Okalongo and Onesi, four Towns i.e. Okahao, Oshikuku, Outapi and Ruacana and Tsandi Village Council. There are nine recognized Traditional Authorities namely Ombalantu, Ombandja, Ongandjera, Oukwanyama, Uukolonkadhi, Uukwaluudhi, Uukwambi, Otjikaoko and Vita-Tom Royal House (Census, 2011).

The site is in liputu Village which falls under the Etayi Constituency has a population of 35,101 (19,610 females and 15,491 males). The constituency has a high literacy rate of 89%, with 12% having left school. Approximately 46% of the inhabitants in the constituency are economically active of which 55% are formally employed and 45% unemployed (Namibia Statistics Agency, 2011).

### **5.5.2 Economic Activities**

According to the Namibia Statistics Agency (2014), the main source of income in households in the Etayi Constituency is pension (42%), wages and salaries (20%), and farming (16%), business and non-farming (9%) and Cash remittance (6%).

The public consultation and engagement process and means employed for the EIA Study is presented under Chapter 6.

## 6 PUBLIC CONSULTATION AND PARTICIPATION PROCESS

Public consultation and participation form an important component of an EIA process. It provides potential Interested and Affected Parties (I&APs) and stakeholders with an opportunity to comment on and raise any issues relevant to the project for consideration as part of the assessment process. This greatly assist the EAP to thoroughly identify and record potential impacts and to what extent further investigations are necessary. Public consultation can also aid in the process of identifying possible mitigation measures. The consultation for this project has been done under the EMA and its EIA Regulations and as per the following subsections.

### 6.1 Pre-identified and Registered Interested and Affected Parties (I&APs)

Relevant and applicable national, regional, and local authorities, and other interested members of the public were identified. Pre-identified I&APs were contacted directly, while other parties who contacted the Consultant after project advertisement notices in the newspapers, were registered as I&APs upon their request.

### 6.2 Communication with I&APs, and Means of Consultation Employed

Regulation 21 of the EIA Regulations details the steps to be taken during a public consultation process and these have been used in guiding this process. Communication with I&APs with regards to the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing brief information about the proposed project was compiled and hand delivered to the MEFT accompanying the ECC application, and uploaded on the MEFT (ECC) Portal for project registration and shared with registered Interested and Affected parties (I&APs) via emails (upon request) and during the consultation meeting. The BID copy is attached hereto as Appendix C1.
- A Stakeholders' (I&AP) List was developed and updated as new I&APs register for the EIA.
- Project Environmental Assessment notices were published for two consecutive weeks in the *New Era* and *Windhoek Observer* on the 13<sup>th</sup> and 20<sup>th</sup> of September 2023 – Appendix C2. The consultation period ran from the 13<sup>th</sup> of September to the 20<sup>th</sup> of October 2023.



- A3 size poster for public notice was compiled and pasted in liputu Village -



- .



**Figure 6-1: Public notice posters pasted at the cuca shop in liputu Village**

- A consultation meeting was scheduled to be held in liputu Village on the 14<sup>th</sup> of October 2023 -. Invitations was sent to stakeholders and community members including the neighbours to the site. The meeting was well attended by twenty (20) people. The meeting purpose and project description were explained to the attendees. Some photos taken in the meeting are provided in Figure 6-2.

Comments made in the meeting were noted in the meeting minutes (Appendix C3). The meeting minutes also contained the list of I&APs who attended and contributed to the EIA meeting.



**Figure 6-2: Consultation meeting in progress at liputu Village on the 14<sup>th</sup> of October 2023**

Furthermore, as part of the consultation and engagement process and in obtaining land use consent requirements, letters of consent were issued to the Proponent by the Head man of the liputu Village and Uukwambi Traditional Authority (Appendix D).

### 6.3 Feedback and Issues raised by the Stakeholders (I&APs)

A summary of main issues and concerns raised during consultation meeting (please refer to the Meeting Minutes) are provided in Table 6-1 below, and these have been incorporated in this EMP and forming basis of the management and mitigation measures.

**Table 6-1: Summary of issues and comments noted during the consultation meeting and responses**

Issue	Summary	Response
Employment	The Proponent must prioritize employing community members	The Proponent have noted that one down
School design	The Proponent must consider building a double storey to save space	The Proponent have noted that down
Existing building within the proposed site	What will happen to the existing structure within the proposed site	The headman suggested that they will be demolished and the materials will be auctioned to the community

The next chapter is the presentation of potential impacts identified, the assessment methodology, impact description and their assessment.

## 7 IMPACTS IDENTIFICATION, ASSESSMENT AND MEASURES

### 7.1 Identification of Potential Impacts

The proposed project and its associated activities are usually associated with different potential positive and negative impacts. For an environmental assessment, the focus is placed mainly on the negative impacts that are likely to affect the host environmental and social features. The assessment is done to ensure that these impacts are sufficiently addressed, and adequate mitigation measures are recommended thereto for implementation so that an impact's significance is brought under control, while maximizing the positive impacts. The potential positive and negative impacts that have been identified from the School establishment activities are listed as follow:

#### 7.1.1 Positive impacts

The potential benefits or positive impacts associated with the project are as follows:

- Increase in the number of local schools in the area
- Access to quality education
- Creation of jobs during the construction and operational phases
- Local and regional economic growth through quality and access to private primary education.

#### 7.1.2 Adverse (Negative) impacts

The potential adverse or negative impacts associated with the project are as follows:

- Physical land / soil disturbance resulting in compaction and erosion (during construction)
- Environmental pollution (littering)
- Potential soil and water resources pollution during construction
- Potential Damage to Landscape: Litter, erosion, fires,
- Disturbance to livestock during construction
- Potential impact on vegetation (removal) to enable construction activities
- Potential noise during construction
- Air pollution owing to dust generation and fumes/emissions (during construction)
- Impact on archaeological and cultural heritage resources, in the case of any archaeological and heritage finds onsite (inadvertent unearthing during site preparation/excavations).
- Potential health and safety risks associated with mishandling of construction equipment.

## 7.2 Impact Assessment Methodology

The Environmental Assessment process primarily ensures that potential impacts that may occur from project activity are identified and addressed with environmentally cautious approaches and legal compliance. The impact assessment method used for this project is in accordance with Namibia's Environmental Management Act (No. 7 of 2007) and its Regulations of 2012, as well as the International Finance Corporation (IFC) Performance Standards.

The identified impacts were assessed in terms of scale/extent (spatial scale), duration (temporal scale), magnitude (severity) and probability (likelihood of occurring), as presented in Table 7-1.

To enable a scientific approach to the determination of the environmental significance, a numerical value is linked to each rating scale. This methodology ensures uniformity and that potential impacts can be addressed in a standard manner so that a wide range of impacts are comparable. It is assumed that an assessment of the significance of a potential impact is a good indicator of the risk associated with such an impact. The following process will be applied to each potential impact:

- Provision of a brief explanation of the impact,
- Assessment of the pre-mitigation significance of the impact, and
- Description of recommended mitigation measures.

The recommended mitigation measures prescribed for each of the potential impacts contribute towards the attainment of environmentally sustainable operational conditions of the project for various features of the biophysical and social environment. The following criteria (in Table 7-1) were applied in this impact assessment:

**Table 7-1: Criteria used for impact assessment (extent, duration, intensity and probability)**

The Criteria used to assess the potential negative impacts				
Extent or (spatial scale) - extent is an indication of the physical and spatial scale of the impact.				
Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)
Impact is localised within the site boundary: Site only	Impact is beyond the site boundary: Local	Impacts felt within adjacent biophysical and social environments: Regional	Impact widespread far beyond site boundary: Regional	Impact extend National or over international boundaries
Duration- Duration refers to the timeframe over which the impact is expected to occur, measured in relation to the lifetime of the project				
Low (1)	Low/Medium (2)	Medium (3)	Medium/High (4)	High (5)

The Criteria used to assess the potential negative impacts				
Immediate mitigating measures, immediate progress	Impact is quickly reversible, short-term impacts (0-5 years)	Reversible over time; medium term (5-15 years)	Impact is long-term	Long term; beyond closure; permanent; irreplaceable or irretrievable commitment of resources
<b>Intensity, Magnitude / severity</b> - Intensity refers to the degree or magnitude to which the impact alters the functioning of an element of the environment. This a qualitative type of criteria				
<b>H-(10)</b>	<b>M/H-(8)</b>	<b>M-(6)</b>	<b>M/L-(4)</b>	<b>L-(2)</b>
Very high deterioration, high quantity of deaths, injury of illness / total loss of habitat, total alteration of ecological processes, extinction of rare species	Substantial deterioration, death, illness or injury, loss of habitat / diversity or resource, severe alteration, or disturbance of important processes	Moderate deterioration, discomfort, partial loss of habitat / biodiversity or resource, moderate alteration	Low deterioration, slight noticeable alteration in habitat and biodiversity. Little loss in species numbers	Minor deterioration, nuisance or irritation, minor change in species / habitat / diversity or resource, no or very little quality deterioration.
<b>Probability of occurrence</b> - Probability describes the likelihood of the impacts occurring. This determination is based on previous experience with similar projects and/or based on professional judgment				
<b>Low (1)</b>	<b>Medium/Low (2)</b>	<b>Medium (3)</b>	<b>Medium/High (4)</b>	<b>High (5)</b>
Improbable; low likelihood; seldom. No known risk or vulnerability to natural or induced hazards.	Likely to occur from time to time. Low risk or vulnerability to natural or induced hazards	Possible, distinct possibility, frequent. Low to medium risk or vulnerability to natural or induced hazards.	Probable if mitigating measures are not implemented. Medium risk of vulnerability to natural or induced hazards.	Definite (regardless of preventative measures), highly likely, continuous. High risk or vulnerability to natural or induced hazards.

### 7.3 Impact Significance

Impact significance is determined through a synthesis of the above impact characteristics. The significance of the impact “without mitigation” is the main determinant of the nature and degree of mitigation required. As stated in the introduction to this chapter, for this assessment, the significance of the impact without prescribed mitigation actions was measured.

Once the above factors (Table 7-1) have been ranked for each potential impact, the impact significance of each is assessed using the following formula:

$$\text{SP} = (\text{magnitude} + \text{duration} + \text{scale}) \times \text{probability}$$

The maximum value per potential impact is 100 significance points (SP). Potential impacts were rated as high, moderate, or low significance, based on the following significance rating scale (Table 7-2).

**Table 7-2: Impact significance rating scale**

Significance	Environmental Significance Points	Colour Code
High (positive)	>60	H
Medium (positive)	30 to 60	M
Low (positive)	<30	L
Neutral	0	N
Low (negative)	>-30	L
Medium (negative)	-30 to -60	M
High (negative)	>-60	H

For an impact with a significance rating of high, mitigation measures are recommended to reduce the impact to a low or medium significance rating, provided that the impact with a medium significance rating can be sufficiently controlled with the recommended mitigation measures. To maintain a low or medium significance rating, monitoring is recommended for a period to enable the confirmation of the significance of the impact as low or medium and under control.

The assessment of the project phases is done for both pre-mitigation (before implementing any mitigation) and post-mitigation (after mitigations are implemented). The objective with the mitigation measures is to firstly avoid the risk and if the risk cannot be avoided, mitigation measures to minimize the impact are recommended. Once the mitigation measures have been applied, the identified risk will be of low significance.

## 7.4 Description and Assessment of Potential Impacts

The potential impacts from the proposed project activities are described, and assessed in Table 7-3. The management and mitigation measures in the form of management action plans are provided in the Draft EMP.

Table 7-3: The Description and Assessment of the impacts of the School construction and operations activities on the environment

Impact	Impact Description	Impact Assessment									
		Pre-mitigation Rating					Post-mitigation Rating				
		Extent	Duration	Intensity	Probability	Significance	Extent	Duration	Intensity	Probability	Significance
<b>Positive Impacts</b>											
Employment creation and income	The project activities will add to the income of the construction contractor and their team (employed staff) which will continue to support themselves and their families. In the long-run the School operations will create job opportunities for both teachers, administration workers, cleaners, cooks, etc.,	L / M-2	L / M - 2	L / M - 4	L / M - 2	L - 16	M / H - 4	H - 5	M - 6	H - 5	H - 75
Accessibility to better education	Learners will have access to quality education	L / M - 2	L / M - 2	L / M - 4	L - 1	L - 8	M / H - 4	H - 5	M - 6	H - 5	H - 75
Socio-economic development	Contributes to local economic development through improved access to better education and opportunities in the area.	L / M - 2	L / M - 2	L / M - 4	L - 1	L - 8	M / H - 4	H - 5	M - 6	H - 5	H - 75
<b>Negative (Adverse) Impacts</b>											
Physical disturbance to the site soils (during construction)	The land clearing and excavations to enable the erection of structures, installation of infrastructure and movement of vehicles will potentially result in soil disturbance leading to compaction of site soils. This will,	M - 3	M / H - 4	L / M - 4	M / H - 4	M - 44	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12



Impact	Impact Description	Impact Assessment									
		Pre-mitigation Rating					Post-mitigation Rating				
		Extent	Duration	Intensity	Probability	Significance	Extent	Duration	Intensity	Probability	Significance
	however, be a short-term and localized impact.										
Environmental pollution (littering)	Solid and hazardous waste may be generated onsite during construction and operational activities. If the generated waste is not disposed of in a responsible way, this may lead to environmental pollution may occur on and around the site.	M: -3	M: -3	M / L: -4	M / H: 4	M: -40	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12
Occupational and Community Health and Safety Risks	<p>Potential health and safety risks associated with mishandling of construction and maintenance) equipment. Project personnel (workers) involved in construction activities, particularly may be exposed to health and safety risks. These would happen if heavy vehicle, equipment are not properly secured to prevent any harm or injury to the project personnel and people moving within the site premises.</p> <p>The use of heavy equipment, especially during excavation, and erection of project structures and installation of services may result in accidental tripping and</p>	M - 3	M - 3	M - 6	M / H - 4	M - 48	L / M: - 2	L / M: -2	L / M: -4	L / M: 2	L: -16

Impact	Impact Description	Impact Assessment									
		Pre-mitigation Rating					Post-mitigation Rating				
		Extent	Duration	Intensity	Probability	Significance	Extent	Duration	Intensity	Probability	Significance
	falling of such structures. This could pose a safety risk to the project personnel, equipment, and vehicles. The use of heavy equipment, especially may result in accidental fire outbreaks. This could pose a safety risk to the project personnel and locals.										
Soil and water resources pollution	There is potential pollution to soils and water resources during construction phase where there will be handling of hydrocarbons (fuels and oils) as well as mishandling of wastewater during construction and operational phase.	M - 3	M - 3	M - 6	M / H - 4	M - 48	L / M: - 2	L / M: - 2	L / M: - 4	L / M: 2	L: -16
Disturbance to livestock (fauna) during construction	The movement of heavy vehicles transporting project materials and services to and from site may pose a nuisance and disturbance to local livestock. This will be short-term impact during construction and the impact will be minimal to none during operations.	M: -3	M: -3	M / L: -4	M / H: 4	M: -40	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12
Potential impact on vegetation (removal)	There is minimal impact on the removal of site vegetation within the project footprint to enable	M: -3	M: -3	M / L: -4	M / H: 4	M: -40	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12

Impact	Impact Description	Impact Assessment									
		Pre-mitigation Rating					Post-mitigation Rating				
		Extent	Duration	Intensity	Probability	Significance	Extent	Duration	Intensity	Probability	Significance
	structure and infrastructures erection and installation.										
Air pollution owing to dust generation and fumes / emissions	There is potential dust to emanate from construction activities as well as associated vehicle movements. However, the impact will be short-term and localized.	M: -3	M: -3	M / L: -4	M / H: 4	M: -40	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12
Noise from construction activities	There is a potential of noise from earthwork activities and vehicles during construction, which may be a nuisance to locals near the site. Excessive noise without any protective measures in place can be also a health risk to workers on site. The construction equipment is of medium size and the noise level is bound to be limited to the site boundaries only.	L/M - 2	L/M - 2	M - 6	M/H - 3	M - 30	L - 1	L / M - 2	L - 2	L / M - 2	L - 10
Archaeological and Heritage resources		M - 3	M - 3	M - 6	M / H - 4	M - 48	L / M - 2	L / M - 2	L - 2	L / M - 2	L - 12

The recommendations and conclusion to the School establishment EIA are presented under the next chapter.

## 8 RECOMMENDATIONS AND CONCLUSIONS

The EIA Study for the proposed establishment of the School was undertaken in accordance with the EMA and its 2012 EIA Regulations (Section 21 to 24 of the EIA Regulations) as follows:

- A Background Information Document (BID) containing brief information about the proposed project was compiled and hand delivered to the Ministry of Environment, Forestry and Tourism (MEFT) accompanying the ECC application, and uploaded on the MEFT (ECC) Portal for project registration and shared with registered Interested and Affected parties (I&APs).
- The EIA Study notices were published for two consecutive weeks in the *New Era* and Windhoek Observer on the 13<sup>th</sup> and 20<sup>th</sup> of September 2023). The consultation period ran from the 13<sup>th</sup> of September 2023 to the 20<sup>th</sup> of October 2023.
- The A3 size poster for public notice was compiled and pasted in liputu Village at Etenda and Rejoice bar (nearby location called liputu).
- A consultation meeting was scheduled to be held in liputu Village on the 14<sup>th</sup> of October 2023 -. Invitations was sent to stakeholders and community members including the neighbors to the site. The meeting was well attended by forty-one (41) people. Meeting minutes were taken.

**Impact identification and assessment:** Some key potential positive and negative impacts were identified by the Environmental Consultant based on project experience and comments as well as issues raised by I&APs during the consultation meeting.

The potential impacts were described and assessed in this Report and mainly have a medium rating significance pre-implementation of mitigation measures. The management and mitigation measures to the impacts have been provided in the Draft EMP (in a form of action measure) for implementation by the Proponent, their contractors, and workers to avoid and/or minimize their significance on the environmental and social components. The effective implementation of the recommended management and mitigation measures accompanied by monitoring will particularly see the reduction in the significance of adverse impacts that cannot be avoided completely (from slightly high to medium rating and then low rating until negligible level) as follows:

- Physical disturbance to the site soils (during construction): pre-mitigation – medium and post-mitigation – low,
- Environmental pollution (littering): *pre-mitigation – medium rating and post-mitigation – low rating,*
- Occupational and community health and safety risks (during construction and maintenance): *pre-mitigation – medium rating and post-mitigation – low rating,*

- Visual and aesthetic: *pre-mitigation – medium rating and post-mitigation – low rating,*
- Noise from construction activities: *pre-mitigation – medium rating and post-mitigation – low rating,* and
- Archaeological and Heritage resources: *pre-mitigation – medium rating and post-mitigation – low rating.*

The Scoping assessment of the EIA Study was deemed sufficient and concluded that no further detailed assessments are required to the ECC application for the proposed School.

Serja Consultants are confident that the potential negative impacts associated with the proposed project can be managed and mitigated by the effective implementation of the recommended management and mitigation measures and with more effort and commitment put on monitoring the implementation of these measures.

It is therefore, recommended that the proposed School be granted an ECC, and provided that:

- All the management and mitigation measures provided herein are effectively and progressively implemented.
- All required permits, licenses and approvals for the proposed activities should be obtained as required and ensuring compliance with associated specific legal requirements.
- Transparency in communication and continued engagement with the stakeholders, specifically the Traditional Authority, regulatory authorities (MAEC) as well as other key stakeholders should be maintained before and throughout the project.
- The Proponent, their project workers or contractors comply with the legal requirements governing their project and its associated activities and ensure that project permits and or approvals required to undertake specific site activities are obtained and renewed as stipulated by the issuing authorities.
- Site areas where earthworks are carried out should be rehabilitated, as far as practicable. This includes the levelling of stockpiled topsoil, backfilling of construction trenches and pits.
- The EMP implementation should be checked and done by the responsible team member onsite (Environmental Control Officer (ECO) or Health, Safety & Environmental (HSE) Officer) and audited by an Independent Environmental Consultant on an annual basis to compile Environmental Monitoring (Audit) Reports. These reports are to be submitted to the DEAF – This will be required by the Environmental Commissioner (as part of the ECC conditions).

It can be concluded that some of the identified negative impacts may be significant, particularly during the construction phase, but, they would not hinder the proposed establishment of the School. However, the

recommended measures should be effectively implemented and monitored. This is to ensure that the significance of adverse impacts is reduced to acceptable ratings, i.e., from high to medium and then low and or from medium to low and eventually to a negligible significance rating. The effectiveness of the implementation of the management and mitigation measures and EMP compliance will be done by a responsible Officer and audited by an Independent Environmental Consultant on an annual basis. This is done so that recommended measures can be tracked via Bi-Annual Environmental Monitoring exercises and documented in the monitoring reports to the Environmental Commissioner.

The monitoring of EMP implementation will not only be done to ensure that the impacts significance is reducing and or maintain low significance rating but to also ensure that all potential impacts that might arise during implementation are properly identified in time and addressed immediately

## 9 LIST OF REFERENCES

1. Kangombe, F. (2010). The vegetation of Omusati and Oshana Regions, Central-Northern Namibia. University of Pretoria.
2. Mendelsohn J., Jarvis A., Roberts C., and Robertson T. (2002). Atlas of Namibia: A Portrait of the Land and its People. Cape Town: David Philip Publishers.
3. Ministry of Education, Arts and Culture (MoEAC). (2021). Education Statistics. Accessed on 12 March 2024. Available from <https://moe.gov.na/wp-content/uploads/2023/01/EMIS-2021-Report-1.pdf>. Accessed on 12 March 2024.
4. Ministry of Environment and Tourism (MET). (2012). Environmental Management Act No. 7 of 2007. Windhoek: Directorate of Environmental Affairs, Ministry of Environment and Tourism
5. Namibia Statistics Agency. (2014). Namibia 2011: Population and Housing Census: Basic Analysis with Highlights – Omusati Regional Profile. Windhoek: Namibia Statistics Agency.
6. .Omusati Regional Council (ORC). (2006). Omusati Regional Corporate Profile.
7. The National Curriculum for Basic Education, NIED 2015. Available from [http://www.nied.edu.na/assets/documents/05Policies/NationalCurriculumGuide/National\\_Curriculum\\_Basic\\_Education\\_June\\_2015.pdf](http://www.nied.edu.na/assets/documents/05Policies/NationalCurriculumGuide/National_Curriculum_Basic_Education_June_2015.pdf). Accessed on 12 March 2024