Environmental Impact Assessment (EIA) for the proposed Construction and operation of Dr. Frans Aupa Indongo Private College at Ekanda Village, Elim Constituency, Omusati Region

April 2022

PROJECT NAME	**Environmental Impact Assessment (EIA) for the proposed Construction and operation of Dr. Frans Aupa Indongo Private College at Ekanda Village, Elim Constituency, Omusati Region**
STAGE OF REPORT	**Final Scoping Report**
CLIENT	**Dr Frans Aupa Indongo Private College** **Enquiries: Martha N, Nakangombe** **E-Mail: p.nakangombe@yahoo.com**
LEAD CONSULTANT	**Envirofficient consultants cc** **Enquiries: Nikolas Ndeikonghola** **Cell: +26481 307 7370** **E-Mail: envirofficient@gmail.com**
DATE OF RELEASE	**April 2022**
AUTHORS	**Nikolas S. Ndeikonghola**

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LIST OF ABBREVIATIONS

BID	Background Information Document
CV	Curriculum Vitae
DEA	Directorate of Environmental Affairs
DRFAIPC	Doctor Frans Aupa Indongo Private College
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
ED	Executive Director
GIS	Geographic Information System
GG	Government Gazette
GN	Government Notice
GDP	Gross Domestic Product
I&Aps	Interested and Affected Parties
MAWLR	Ministry of Agriculture, Water and Land Reform
MAEC	Ministry of Education, Arts and Culture
MEFT	Ministry of Environment Forestry and Tourism
NamPower	Namibia Power Corporation
NTA	Namibia Training Authority
NamWater	Namibia Water Corporation
NHC	National Heritage Council
NORED	Northern Regional Electricity Distributor
NDP	National Development Plan
RA	Roads Authority
PPE	Personal Protective Equipment
UTA	Uukwambi Traditional Authority

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1. INTRODUCTION

1.1 Background

Dr. Frans Aupa Indongo Private College hereinafter referred to as the proponent appointed Envirofficient Consultants cc to conduct an Environmental Impact Assessment for the proposed private school which is to be established on a parcel of land situated in the Ekanda Village, Elim constituency, Omusati region.
The proposed private college will be constructed in three phases. The first phase of development will be the construction of a primary school (grade 1 – 7), accompanied by sport facilities and accommodation units for both the students, hostel personnel and the teachers. The second phase is the construction of a secondary school (grade 8 - 12) on the same parcel of land. In the third and final phase, there will be construction of a vocational technical college. The proposed Dr. Frans Aupa Indongo Private College will equally have supporting activities which will be incorporated in the application of the ECC, such as the construction of the access road, sporting facilities and bulk services infrastructures for the school and sanitation ponds.

Envirofficient consultants cc has been appointed to conduct an Environmental Impact Assessment (EIA) and develop an Environmental Management Plan (EMP) for the proposed private college. This Scoping Report is the conclusion of the first phase of an EIA process. The scoping report is aimed for gathering all possible impacts either positive or negative in nature and comparative implication is determined. This report determines if there is a need for further investigation. In situations whereby all impacts are addressed without further investigation, this document will then be submitted to the Directorate of Environmental Affairs (DEA) with an EMP. Nikolas Ndeikonghola is the qualified and recognized Environmental Assessment Practitioner (Annexure A).

Envirofficient consultants has been appointed to assess the site of proposed school, and the construction of bulk services and infrastructures, but not the actual activities that will take place in future.
(See Figure 1 of the site.)

Dr. Frans Aupa Indongo Private Collage

Ekanda village, Elim constituency, Omusati region

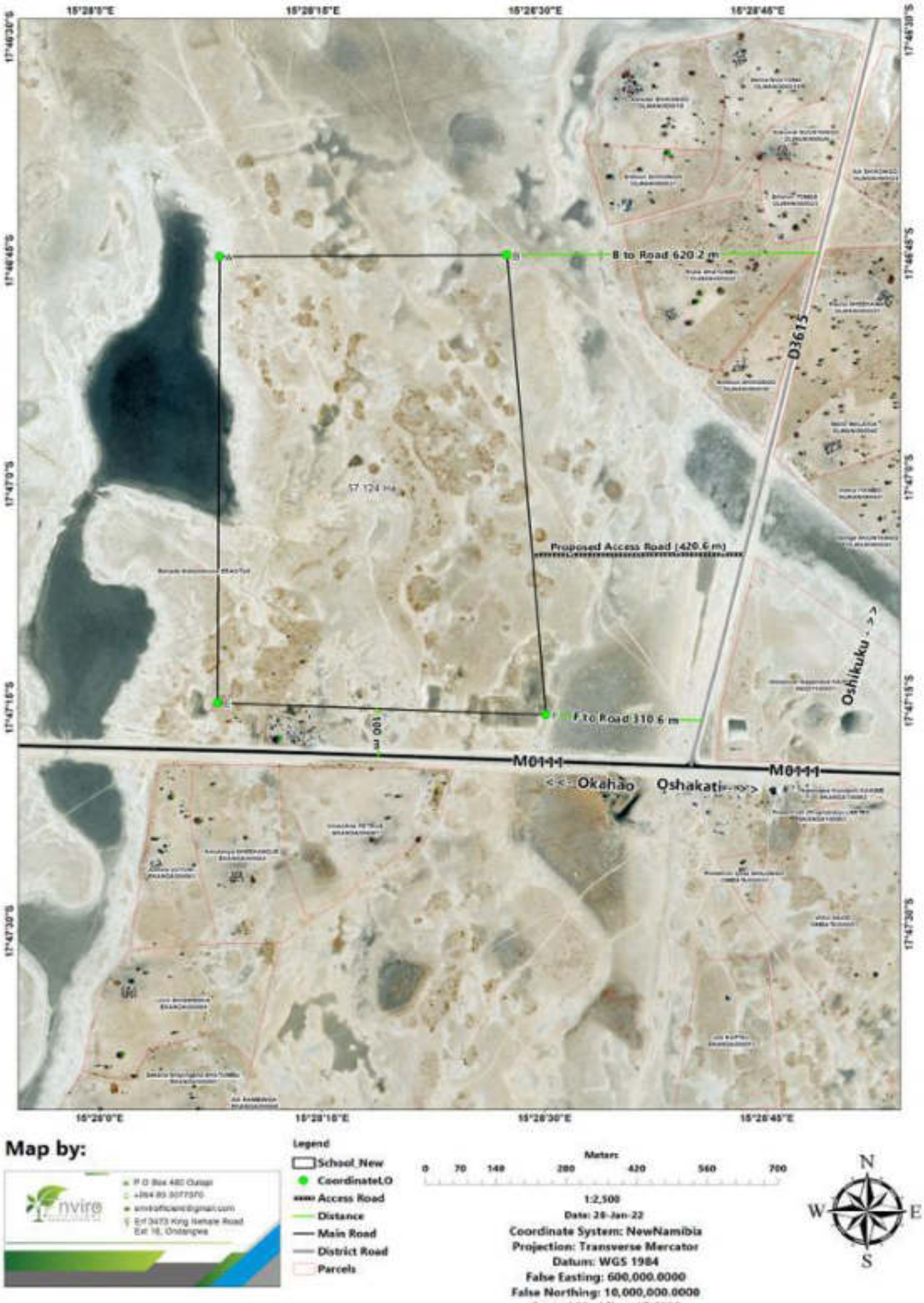


Figure 1: Map Describing the project area and locality (Envirofficient Consultants 2021)

According to the Environmental Management Act (2007) and its Regulations (2012) the following activities require an Environmental Clearance Certificate:

a) *"Other forms of mining or extraction of any natural resources whether regulated by law or not." (Section 3.2)* (burrow pits for road construction);

b) *"the clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in terms of the Forest Act, 2001 (Act No. 12 of 2001) or any other law." (Section 4)* (Clearance of vegetation for the construction of infrastructure, and eventual clearance for buildings).

c) *"Construction of industrial and domestic wastewater treatment plants and related pipeline systems (Section 8.6)*

d) *"The construction of- (a) … water, … bulk supply pipelines; (b) public roads." (Section 10.1 (a)).*

b) *"the construction of infrastructures public roads" (Section 10.1 (b) and Section 10.2)*

1.2 Purpose of the study

The objective of the scoping process is:

- Evaluate the appropriateness of the proposed development against the biophysical and socio-economic of the area;
- To investigate any environmental and socio-economic impacts associated with the activities of this project and provide a detailed description of the proposed activities of this project;
- To determine the level of environmental sensitivity and propose the most suitable measures in of reducing negative natural impacts;
- To assess the legal tools that the project need to comply with;

- To extend consultation to potentially Interested and Affected Parties (I&APs), and relevant stakeholders about the project, and ensure that their concerns are considered;
- To draft mitigation measures in an Environmental Management Plan (EMP) to minimize potentially negative impacts, and ensure compliance with the Environmental Management Act (EMA, No.07 of 2007) and all other legal frameworks.

1.3 Methodology

The scope of this study is in line with the environmental impact assessment process as outlined in the Environmental Management Act (Act No.07 of 2007) and it's Regulations of February 2012. The study is conducted in a multi-disciplinary approach and in a consultative manner, furthermore the study made use of several approaches to collect data which includes:

- Collection of primary data by visiting the site and asses the environment,
- Secondary data collection by consulting relevant stakeholders and I&Aps and review of relevant related literatures and legal frameworks.

Collection of data is then compiled and presented in this Scoping Report. The scoping report will therefore determine and assess the scope of the study and identify if there is a need for any specialist studies.

Since there was no need for any specialist studies to be conducted, this report will be considered as the final output of the environmental impact assessment of the proposed Dr. Frans Aupa Indongo Private College land Parcel in Ekanda Village, Elim Constituency in the Omusati region. Attached to this report is also an Environmental Management Plan (EMP) of which will serve as a binding legal document upon approval by the relevant authorities to guide the planning, design and construction of the project.

The terms of reference for this EIA are as follows:

- Compilation of scoping report,
- Compilation of an Environmental Management Plan.

1.4 Location of the project

The proponent was allocated a portion of land by the Uukwambi Traditional Authority at Ekanda Village, Elim Constituency in Omusati Region. The land parcel is situated at 15°28'15"E and 17°47'0"S. The proposed development site is about 57.124 hectares in extent.

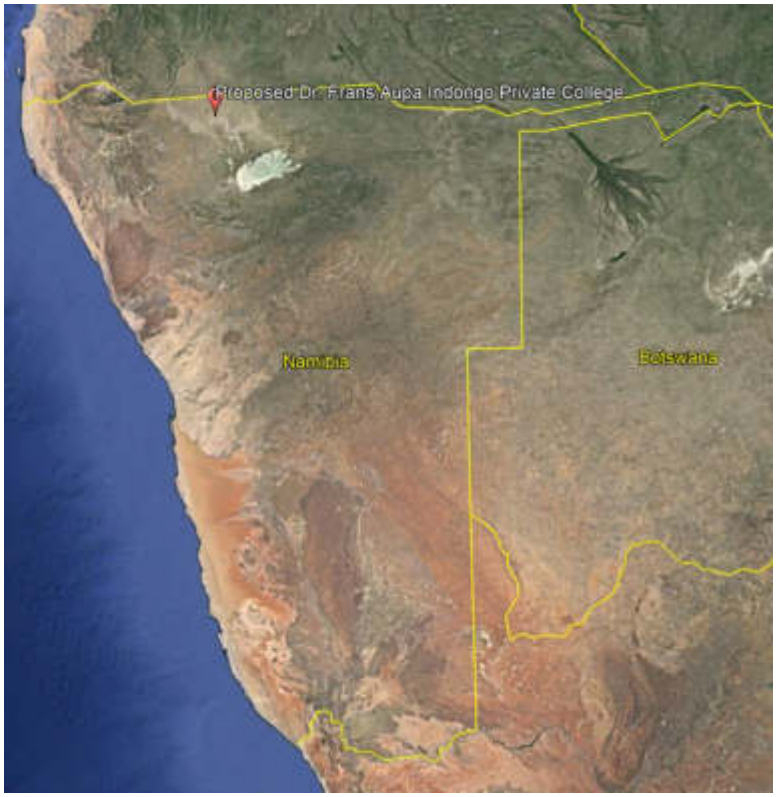


Figure 2: Description of project locality (Google Maps, 2022)

1.5 Credibility of the School

This application is to be submitted to the Ministry of Education, Arts and Culture, and application is yet to be made to the NTA for the vocational art college that will be constructed.

2 PROJECT DESCRIPTION

This section provides a detailed description of the proposed project. This includes an explanation of the proposed layout and some of the key land uses. The services infrastructure will also be described in this section

2.1 NEED FOR THE SCHOOL

Namibia continuously experiences the need of vocational and technical educational facilities, especially in the rural areas. Most institutions are currently centralized in urban areas, which is one of the factors putting pressure to local governments in urban areas. There is a high rate of rural-urban migration, mushrooming of informal settlements and land grabbing in urban areas as a result of lack of essential developments in rural areas. Decentralized educational services in rural area helps promote a shared learning opportunity for students while supporting their learning journeys. It is very expensive for parents to send their children to schools far in urban areas, therefore having a private college established in Ekanda Village in Elim Constituency will be very beneficial for the local residents of the Omusati Region, and the rest of the country at large. Other benefiting factors include employment creation to the local residents especially entry level positions, and during the construction of school infrastructures. The development of the school is further beneficial for the region and country, in terms of technical skilled human capital investment and contribution to a literate nation as a whole.

During the first lockdown of the country due to Covid 19 pandemic in April 2020, Namibia experienced shortage of goods in retail shops, which means the country is very much dependent on importing goods from other countries. This should be a lesson learned for the country to invest in human capital and develop educational infrastructures in order to advance technical skills in the country which will lead to an independent manufacturing country. It is therefore important that schools are established in Namibia especially colleges that are enhancing skills in the production and manufacturing sectors.

Currently there are only 15 registered schools with different grades in Elim Constituency. Apart from DAPP around Outapi Town Council in Omusati region, there is currently no other registered college in Elim Constituency offering advanced education after grade 12. However, according to the new Revised Curriculum for Basic Education (RCBE) (2015-2022) the Ruacana Secondary School is the only

school reserved for technical oriented curriculum from Grade 8 to 12 in the Omusati Region. The description above explains how much there is a need for infrastructures DRFAIPC establishment within the constituency.

Table 1 List of schools in Elim Constituency (Ministry of Education 2018)

No.	Name of School	Grades
1	Onampira Combined School,	grade 1-12,
2	Oshuungu Combined School	Grade 0-10,
3	Ashipala Junior Secondary School	Grade 9-12
4	Elim Primary School	Grade 8-10,
5	Etope Primary School	Grade 1-7,
6	Kampelo Combined School	Grade 0-10
7	Naango Primary School	Grade 0-7
8	Olupumbu Combined School	Grade 0-10
9	Omakuwa Primary School	Grade 0-3
10	Onaanda Combined School	Grade 0-10
11	Oshuuli Comined School	Grade 0-10
12	Othika Combined School	Grade 0-10
13	Uutsima Combined School	Grade 0-10
14	Onamutuku Primary School	Grade 1-4
15	Negumbo Senior Secondary School	Grade 9-12
16	Ben Shikongo Primary School	Grade 1

2.2 Description of the proposed site

The proposed site is currently vacant, but was previously used as Mahangu field before it was returned to the traditional authorities by the previous owners. The traditional authority then allocated it to Dr. Frans Aupa Indongo Private College for the purpose of establishing a place of instruction (private College). The topography of the site is flat, and there are no existing servitudes within the proposed site, apart from the informal roads and walking paths across the land parcel.

There is also a NAMWATER pipeline and NORED Electricity line adjacent to the school and the C41 Road from Oshakati to Okahao. About 500 meters north of the school, there is a water point called Tshongwa, where the communal domestic animals drink from. There is also a small brickmaking factory west of the proposed site close to Tshongwa. The vegetation is a typical of the Kalahari Basin, which covers most of the northern and eastern parts of Namibia. The vegetation found at the proposed site is

trees such as Hyphaena Petersiana (Omulunga) and Acacia species. The soil type is mostly clay sodic sands with low laying Oshana surrounding it.

2.3 Proposed Development

The proposed development to be established on this site is a private college, that will be called, Dr. Frans Aupa Indongo Private College. The college will be constructed in three phases. Phase one - the primary school, phase two- a secondary school, and phase three – a vocational technical college with the sporting facilities.

The proposed site plan was changed as per the recommendation from the roads authority, who objected during consultation for access road to be changed from MR111, and for the building line from the school to the MR111 to be at least a 100 meters from the centerline of the road.

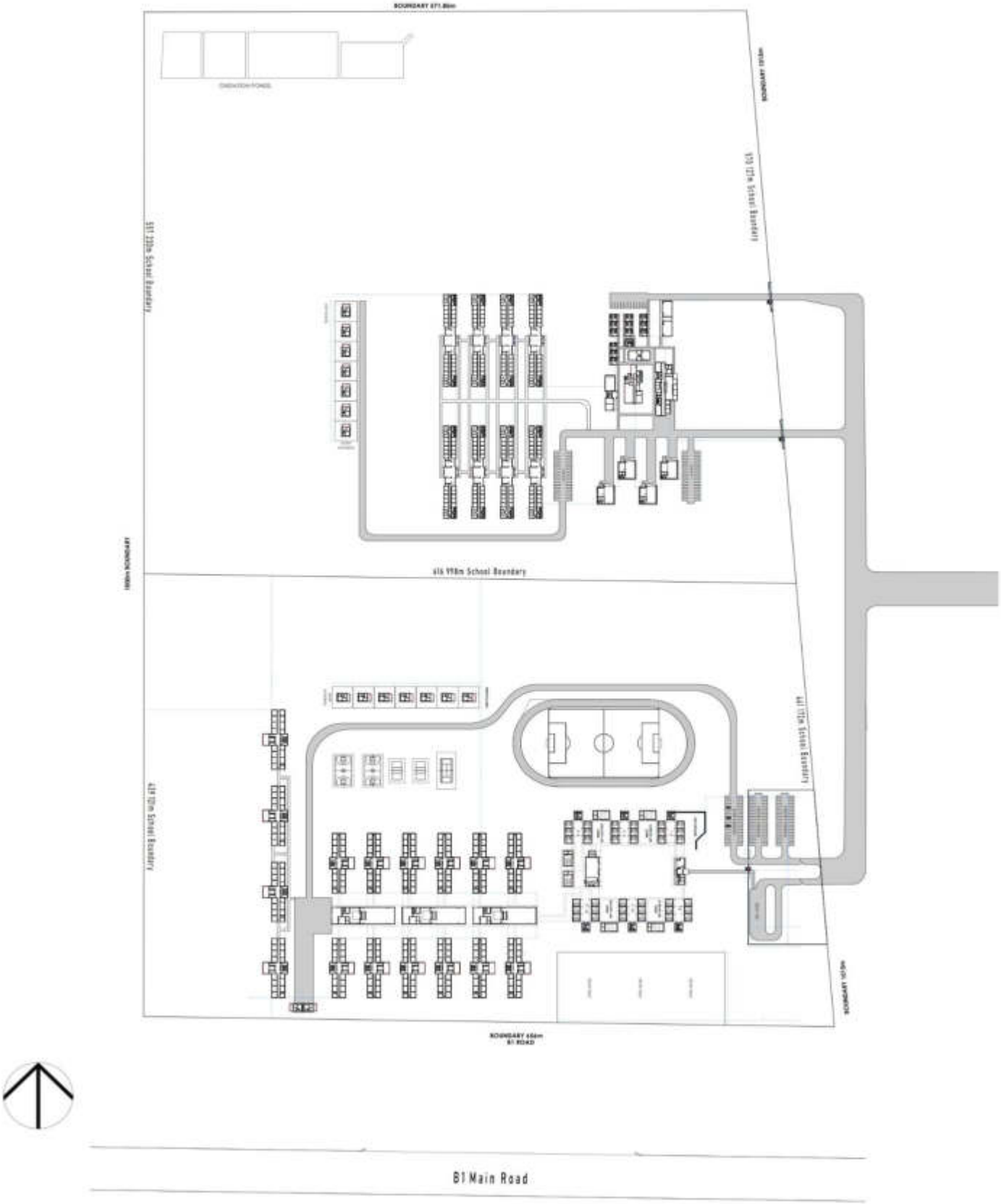


Figure 3: Site Plan of the proposed DR FAIPC (One Studio Architecture 2022)

2.2.1. Primary Phase

Phase one (1) comprises of infrastructures of grade 1-7 classrooms, hostel and other infrastructures as per description in the table 2 below.

Table 2 displays the expected number of infrastructures to be built in the first phase of construction.

Type of Structure	Area (M^2)	Number of structures
Admin Block	193.3	1
School Hall	406.3	1
Guard House	10.4	1
Dining Hall	1020	3
Classroom Block	163	6
Staff House	62	4
Toilet Block	58.4	3
Library	133.2	1
Computer Lab	133.2	1
Hostel Block	864	8
Visitors Parking and Drop off point		2
Health House		2
Oxidation Ponds		

2.2.2 Secondary Phase

The secondary phase is a continuation of the first phase, whereby a secondary school is to be constructed, from grade 8-12. In this phase, structures will be constructed as per the table 3, to complement the secondary phase.

Table 3 displays the expected number of infrastructures to be built in the Secondary phase of construction.

Type of Structure	Area (M^2)	Number of structure
Classroom Block	163	6
Staff House	62	3
Toilet Block	58.4	3
Computer Lab	133.2	1
Hostel Block	864	8
Health House	60	2

2.2.3 Tertiary Phase

In this Phase, a tertiary vocational technical school will be constructed. It is expected for power demand to increase during the operational phase due to industrial activity skills that will be offered. This potential increase has not as yet been communicated to NORED, however this application will be done upon receipt of the ECC.

Table 4: Displays the expected number of infrastructures to be built in the Third phase of construction.

Type of Structure	Area (M^2)	Number of structure
Admin Block	782.8	1
Auditorium Block	316	1
Guard House	10.4	1
Classroom Block	163	4
Staff House	62	7
Toilet Block	62	1
Library	472	1
Science Lab	336.4	2
Computer Lab	202.4	1
Student house	1083	10
Workshop	261.8	4
Multipurpose Sport field		1

3 LEGISLATION

The pursuit of sustainability is guided by a sound legislative framework. In this section relevant legal instruments as well as their relevant provisions have been surveyed. An explanation is provided regarding how these provisions apply to this project in particular.

Table 5: Legal Frameworks affected by the proposed project

THEME	LEGISLATION INSTRUMENT	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution	Namibian Constitution First Amendment Act 34 of 1998	Article 19(c) which commits the state to promote sustainable environmental welfare and formulate as well as institutionalize policies to accomplish the sustainable objectives. It further promotes the sustainable utilization of living natural resources basis for the benefit of all Namibians, both present and future." (Article 95(l)).	Although implementation of the environmental management plan, the proponent needs to advocate for environmental management as stipulated in the constitution . Ecological sustainability should inform and guide this private college project.
Archaeology	National Heritage Act 27 of 2004	Section 48(1) states that "A person may apply to the (Heritage) Council for a permit to carry out works or activities in relation to a protected place or protected object"	Any heritage resources (e.g. human remains etc.) discovered require permit from the NHC for relocation.
	Burial Place Ordinance 27 of 1966	Prohibits the desecration or disturbance of graves and regulates how bodies may be unearthed or dug up.	Regulates the exhumation of graves.
Compensation	Compensation Policy Guidelines for National Compensation Policy (applied with effect from April 2008)	Explains situations that may give rise to compensation e.g. where land is taken for township expansion or other public service sector developments; Gives direction on how compensation shall be determined; Helps affected land owners to choose and option they consider fair; and Is applicable in cases where an occupant of land within a proclaimed local authority boundary has been occupying the affected land in accordance with customary laws of the area.	This document should inform and guide the resettlement plan with its associated compensation.

Environmental	Environmental Management Act 7 of 2007	Requires that projects with significant environmental impact are subject to an environmental assessment process (Section 27). Requires for adequate public participation during the environmental assessment process for interested and affected parties to voice their opinions about a project (Section 2(b-c)). According to Section 5(4) a person may not discard waste as defined in Section 5(1)(b) in any way other than at a disposal site declared by the Minister of Environment and Tourism or in a manner prescribed by the Minister. Details principles which are to guide all EIAs	This Act and its regulations should inform and guide this EIA process.
	EIA Regulations GN 57/2007 (GG 3812)	Details requirements for public consultation within a given environmental assessment process (GN No 30 S21). Details the requirements for what should be included in a Scoping Report (GN No 30 S8) an EIA report (GN No 30 S15).	
Forestry	National Forest Act 12 of 2001	Tree species and any vegetation within 100m from a watercourse may not be removed without a permit (S22(1)). Provision for the protection of various plant species.	The clearing of vegetation is prohibited (subject to a permit)
	Nature Conservation Ordinance 4 of 1975	Provision for the protection of various plant species.	Certain tree species occurring in the area are protected under this ordinance
Labour	Labour Act 11 od 2007	Empowers the minister responsible for labour to publish regulations pertaining to health and safety of labourers (S135). Details requirements regarding minimum wage and working conditions (S39-47).	All contractors involved in the construction of the services infrastructure for this project are require to comply with this Act and its regulations.
Health and Safety	Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers. Section 119 of this Act prohibits the existence of a nuisance on any land owned or occupied by the proponent. The term nuisance is important for the purpose of this EIA, as it is specified, where relevant in Section 122 as follows: any dwelling or premises which is or are of such construction as	

		to be injurious or dangerous to health or which is or are liable to favor the spread of any infectious disease; any dung pit, slop tank, ash pit or manure heap so foul or in such a state or so constructed as to be offensive or to be injurious or dangerous to health; any area of land kept or permitted to remain in such a state as to be offensive, or liable to cause any infectious, communicable or preventable disease or injury or danger to health; or Any other condition whatever which is offensive, injurious or dangerous to health.	
	Public Health Act 36 of 1919	Section 119 states that "no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health."	Potential nuisances (whether dust during construction or noxious gas emissions associated with future industrial activity) should be considered during planning and construction phases and avoided.
Waste and Pollution	Pollution Control and waste management Bill	The Bill serves to regulate and prevent the discharge of pollutants to Air and Water, and provide General waste management.	all activities during the construction and operation of the school must be conducted within the framework of the bill
	Atmospheric Pollution Prevention Ordinance 11 of 1976	This Ordinance generally provides for the prevention of the pollution of the atmosphere and for matters incidental thereto. The Ordinance deals with administrative appointments and their functions; the control of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicle emissions; and general provisions. Part IV of this ordinance deals with dust control. The Ordinance is clear in requiring that any person carrying out an industrial process which is liable to cause a nuisance to persons residing in the vicinity or to cause dust pollution to the atmosphere, shall take the prescribed steps or, where no steps have been prescribed, to adopt the best practicable means for preventing such dust from becoming dispersed and causing a nuisance. Of applicability to the envisaged project, is dust generated by vehicles or equipment as well as dust generated during mining. The risk of dust generation is high at the envisaged site. This deals with air pollution as it affects occupational health and safety, and no consideration is given to the natural environment.	

Communal Land	Communal Land Reform Act 5 of 2002	Provides for the allocation of land rights in communal areas; Establish Communal Land Boards; provide powers to Traditional Authorities and Boards in relation to communal land; registration of lease and use rights in communal areas.	Allows for allocation and the registration of land rights for DRFAIPC by Uukwambi Traditional Authority
Services and Infrastructure	Road Ordinance 1972 (Ordinance 17 0f 1972)	Width of proclaimed roads and road reserve boundaries (S3.1) Control of traffic on urban trunk and main roads (S27.1) Rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads (S36.1) Infringements and obstructions on and interference with proclaimed roads. (S37.1) Distance from proclaimed roads at which fences are erected(S38)	The limitations applicable on RA proclaimed roads should inform the proposed layout and zonings where applicable.
Water	Water Act 54 of 1956	The Water Resources Management Act 24 of 2004 is presently without regulations; therefore the Water Act No 54 of 1956 is still in force: A permit application in terms of Sections 21(1) and 21(2) of the Water Act is required for the disposal of industrial or domestic waste water and effluent. Prohibits the pollution of underground and surface water bodies (S23(1)). Liability of cleanup costs after closure/ abandonment of an activity (S23(2)). Protection from surface and underground water pollution.	A permit is required to dispose of domestic and industrial waste water. The protection of ground and surface water resources (Tshongwa) the ablution facilities and waste water ponds to be properly placed not to mix with existing natural water flows, during construction and operation of the project

Provisions that have emerged as being of particular significance, owing to the nature of associated impacts, include those pertaining to water (protection of surface and ground sources) vegetation (protection of plant species) public health (prevention of nuisances, like air pollution, caused to citizens) and traffic (regulations pertaining to proclaimed roads).

4 RECEIVING ENVIRONMENT

Assessment of the potential environmental impacts can only be well understood if the existing conditions of the environment are known on both biophysical and social aspects.

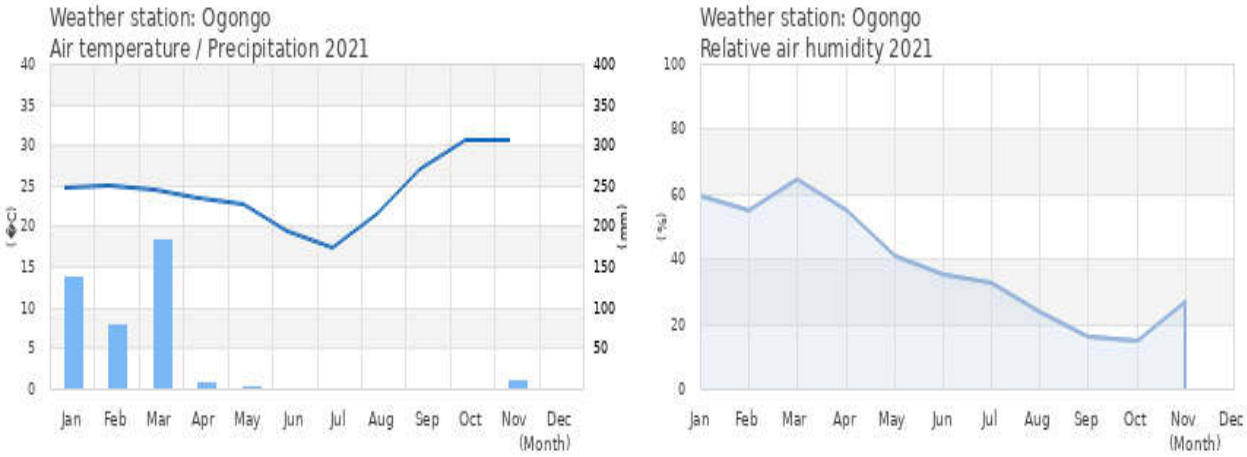
4.1 THE BIOPHYSICAL ENVIRONMENT

In this Section, there is a description of the project area on both living and non-living organisms, and description of how they relate to each other in terms of climatic, water, and soil as well as vegetation factors.

4.1.1 CLIMATE

Elim Constituency climate condition is the same as most parts of the northern central Namibia, which is described as semi-arid to sub-humid with the rainfall confined mainly in summer months from November to March which is description of a typical semi-arid to sub-humid climate conditions. The average Rainfall ranges from 325 – 350mm per year (Strohbach, et al. 2004). The hot daily average temperatures during the summer months ranges from 37°C and can become cool up to a range of 4 °C during the cold winter nights (Kangombe, 2010 and Mendelsohn, et al., 2009).

Figure 4: Climate related sensitivities (SASSCAL WeatherNet 2021)



4.1.2. SOIL AND THE GEOGRAPHICAL LOCATION

Elim Constituency is situated at a very flat geographical landscape consisting of both highland and low-laying areas. The proposed project site is on a flat surface covered with little vegetation mainly annual grass species within the extensive Cuvelai Drainage Basin, basically made up of compound network of interlinked shallow watercourses locally known as oshanas (Mendelsohn *et al*. 2000). The soil

type is favorable for crop farming, which is one of the land use activities surrounding the project site.

4.1.3 GROUND AND SURFACE WATER

The project area is situated close to a surface water point called Tshongwa. This water point serves all the domestic animals within Ekanda village. Tshongwa is situated about 500m northwest of the proposed school site.

Based on the National Hydrological Map, Namibia is divided into twelve hydrogeological regions which are categorized based on the flow of underground water and the geological structure. Elim Constituency forms part of the Cuvelai-Etosha groundwater Basin, which is associated with features such as the *oshana*, which are also filled with surface water throughout the rainy seasons. All the Oshana and underground water are flowing toward Etosha Pan, which is the lowest water collection basin of the entire Cuvelai system.

Figure 5: Photograph of Tshongwa, a surface water point close to the project site (Photos by Envirofficient consultants cc 2022)

4.1.4 Flood risk vulnerability

The project area is surrounded by *oshana;* however the subject portion of land itself is situated on a high land. There are natural water courses (tributaries), which supplies water points like Tshongwa with water, flowing towards the Etosha Pan. During the rainy seasons, certain areas within Ekanda village are cut off by water from the main roads.

4.1.5 VEGETATION

The project area is relatively flat with very few trees and shrubs. The area is however covered with herbaceous grass, and there are four Hyphaena Petersiana and Thorn bush *Acacia* tree and Shrubs. The area has fertile land for crop farming, and currently it forms part of the communal grazing area within the

Uukwambi Traditional Authority for livestock farming (National Forest Inventory, 2007).

Figure 6: Photographs of species found within the project area (Photos by Envirofficient consultants cc 2022)

Human beings have dictated the natural environment in Namibia and around the world for thousands of years. Lifestyle have also changed over the years as in the past people solely depended on farming for survival. Today this has changed as many people have migrated to urban areas in search of employment opportunities. The population have also grown and changes in land use practices over the last century have been observed, which have affected the natural ecological processes (Meike, et al., 2002).

4.2. S O C I A L ENVIRONMENT

The proposed project is located in the Ekanda Village in Elim Constituency in the Omusati Region, and there is no proclaimed township in this constituency. There is however a settlement within the constituency which is also called Elim. The area is surrounded by the communal farmlands. There are two churches in Ekanda Village, that of Roman Catholic Church and Evangelical Lutheran Church in Namibia. There are a total of 16 schools within Elim Constituency, and the closest is Ekamba Combined School which is approximately 7 Km from the proposed school site. The closest health care center is in Oshikuku, 15 km from the proposed project site or 24 km to Oshakati.

4.2.1 HERITAGE (ARCHAEOLOGY)

The water point "*Tshongwa*" is a respected site of the local community and Uukwambi Traditional Authority. In the past, *Tshongwa* was a preserved place that served many communities and livestock by supplying them with water during dry seasons, as it is non-perennial. Many communities in Uukwambi depended on this water point both for household consumptions and for domestic animals.

4.2.2 P O P U L A T I O N AND GROWTH

The total population size for Elim Constituency in 2011 was 11 406, whilst in 2001 the constituency had a population of 10 850 inhabitants. This means the constituency population has grown by 4.9% over a decade (Namibia Statistic Agency, 2014). Similarly, the population of Omusati Region has grown from 228 842 inhabitants in 2001 to 243 166 people in 2011, translating into a 5.9% population increase over the period of ten years (Namibia Statistic Agency, 2014).

4.2.3 LIVELIHOOD STRATEGIES AND LAND USE

Ekanda Village is situated in the center of the Uukwambi Traditional Authority; therefore local inhabitants are predominantly Ovambos/Aawambo who speaks Otshikwambi. There are however minor number of other Namibian tribes and ethnic groups who live in Ekanda village. The population density of Omusati region by the year 2011 was 9.2 persons per square kilometer. Subsistence farming has been the main land use and livelihood of communal areas, whereby a limited number of domestic livestock are kept at home grazing in designated grazing areas, while during rain seasons, crops are grown in the land parcels of individuals as allocated by the traditional authority. The two land uses mentioned above constitutes as one of the main land uses in the Elim constituency. The main sources of income for Elim Constituency are summarized in **Table 6.**

Table 6: Main Sources of Income expressed as a percentage (NPC, 2004)

Household main income in Elim Constituency	Percentage (%)
Farming	17
Wages & Salaries	27
Cash remittance	5
Business, non-farming	5
Pension	46

The houses around the project site are made up of different building materials, some houses are made up of concrete structures, while others have been constructed with Traditional housing materials, such as sticks and reed. Other materials such as corrugated iron can also be spotted in certain households.

There are cuca-shops found about one kilometer away from the school site, made up of mini-shops and shebeens. There is also a brickmaking factory close to the proposed project site. The nearest urban center with major economic business is Oshakati in Oshana region, which is 24 kilometers from the proposed project site.

4.2.5 TRAFFIC AND VISUAL IMPACTS

The subject area is situated along the C41 Road between Oshakati and Okahao (± 0.5km west of the turn to Oshikuku via the D3615 Road). The common traffic flow occurs along the C41 road between Okahao and Oshakati, therefore the development of a private college may increase the traffic, especially when there are out-weekends for learners and students being dropped off or picked up. During consultation, it was therefore advised by Mrs. Elina Hamatwi-Lumbu, the Acting Manager of Roads Legislation Compliance at the Roads Authority of Namibia, for access road of the school site to be changed to D3615 road and not C41, because it is a very busy road (see **Annexure H and I**). Her comments were incorporated into the planning layout of the project.

4.2.6. THE ECONOMIC ENVIRONMENT

Locally, there are no much economic activities taking place in Ekanda village; however there is a brickmaking factory, local mini markets, shebeens, and other small scale businesses. However, Dr. Frans Aupa Indongo Private College proposed project site is 48km to Okahao, 16km to Oshikuku and 25 km to Oshakati. Amongst the three mentioned towns, Oshakati is the biggest of them all, which is the regional capital of Oshana region and a very big economic hub for northerner areas. Oshakati is growing on a fast pace in terms of development. Being a regional capital, Oshakati offers all vital economic services and caters for other towns on the northern parts Namibia.

The most important services of government administration offices are found in Oshakati, which attracted a lot of economic institutions and businesses. In relation to the proposed project, Oshakati has tertiary institutions such as the University of Namibia, major shopping malls, garages and employment creation market.

5. PUBLIC CONSULTATION

Public Participation forms part of a very essential element of the Environmental Impact Assessment process. Potential Interested and Affected Parties (I&AP) were invited to raise their comments and concerns to the Environmental Assessment Practitioner to ensure that a thorough public participation was done before the proposed project.

The following list of stakeholders was identified for this project:

- General public,
- Neighboring properties and households,
- Representatives from various state-owned enterprises (including NamPower, NamWater, and Roads Authority),
- Representatives from the Regional and Constituency Councils,
- Representatives from the Uukwambi Traditional Authority,
- Representatives from various national government ministries (including MEFT, MAWLR, MEAC).

The following is a list of key stakeholders that were identified for this project. Their contact details were added to a stakeholders list (**Annexure B**):

5.1. Public notifications

The EIA process of the project was advertised in two different local Newspapers; namely The Namibian Sun Newspaper and NEW ERA Newspaper both on 29th of September 2021 and the 6th of October 2021. In the advertisements a brief description of the EIA process was given, and information about the proposed project was specified, and at the same time, the general public was invited for a public meeting **(refer to Annexure D)**.

Several public notices were placed at different areas, namely an A2 size placed on the proposed project site, the ministry of Education Offices in Omusati Region at Outapi and at the Omusati Regional Council's Notice Board.

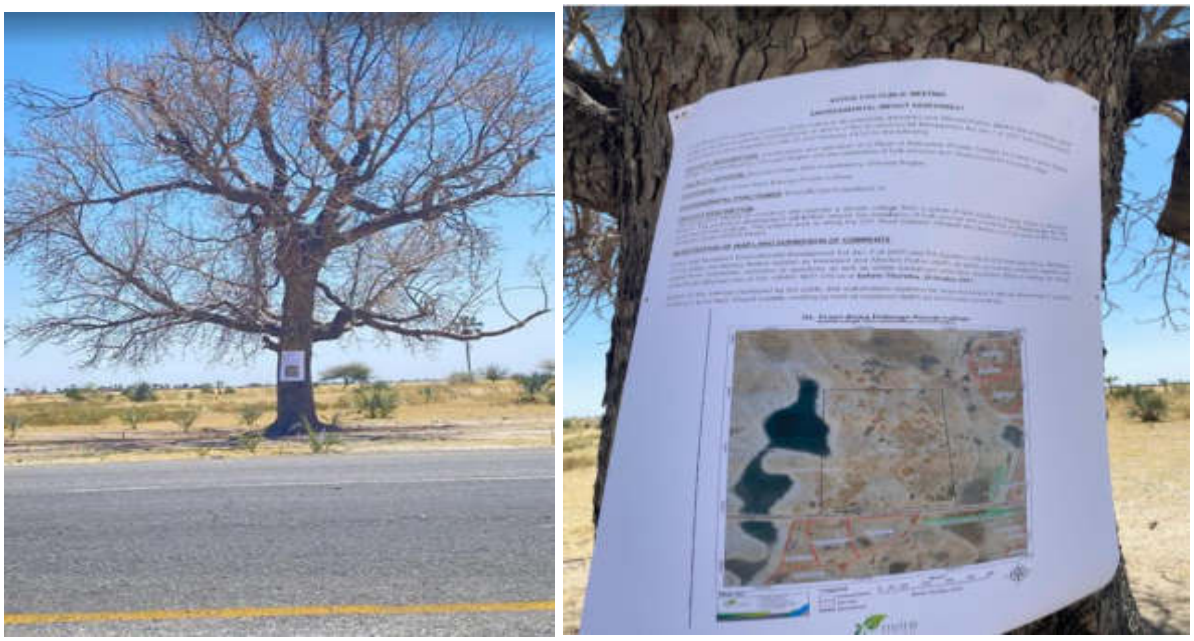


Figure 7: Public Notice at the Marula Tree at the proposed site

Figure 8: Public Notice at the Omusati Regional Council Notice Board

5.2. Public meeting

A participatory public meeting was held at Ekanda Village in a Marula tree situated within the project area on Saturday the 13th November 2021. The meeting was chaired by the Village headman, and the Minutes and Attendance register for this meeting are attached to this report **Annexure E**.

The meeting was not well attended (**Figure 9**). At this meeting there was a presentation and description of the project, and all attendees were given handouts of the presentation and an opportunity to raise their comments and concerns.

Figure 9: Meeting held at the Proposed Project Site

5.3 Background Information Document (BID)

The background information document was compiled and distributed to all registered I&APs and stakeholders through email addresses and hardcopies were also distributed to the neighboring properties. (See **Annexure C**)

The following issues in (**Table 7**) have been compiled based on the comments received throughout the public consultation process. Most comments raised during the public meeting have been responded in the meeting and some were noted to be incorporated in the EMP, the major concern was that of the Roads Authority which was addressed in Annexure I. These issues as well as those identified in Chapter 4 are discussed in the following chapter.

Table 7: Summary of issues raised during the public consultation process

SUMMARY OF ISSUES	
THEME	**Issue**
Economic	• Employment Creation and job opportunities to be created by the school
Health and Safety	• Safety of livestock and children during the construction phase of the school

	• Solid waste and Waste water management (sewerage system) • Potential air and water pollution due to development
Infrastructure	• A temporal and Permanent access road to be applied from the RA • All proclaimed roads have building restriction of a 100m to either side, measured at right angles to the road centerline • Accessibility to be made from the less busy D3615 and not the very busy C41 road • The neighboring property of a brick manufacturing to be considered while constructing road and during development phase
Ecological	• The Marula tree within the project site about 25 meters from the road should not to be incorporated into the school site as it has been used as a resting communal property for local residents and motorists on the C41 road • The construction and operation of the school should not temper with *Tshongwa* and preserve the natural vegetation of surrounding communities.

6 ENVIRONMENTAL IMPACT IDENTIFICATION

In this section, the possible environmental impacts anticipated during the planning, construction and operation of the school are identified. Furthermore, possible environmental conflicts will be identified and mitigation measures for the proposed land use and operation of the school will be put in place in relation to existing policies and legal instruments in place.

6.1 Planning and Design Phase

The planning and Design Phase is the most significant stage of any development, because it is the first step that determines how the entire project will affect the environment.

In the planning and design phase, it is very important to place facilities based on their land compatibility. Facilities such as toilets, oxidation ponds, kitchen and accommodation facilities must be placed in such a way that they relate to each other, and must be placed in such a way that they do not spill or contaminate the existing Tshongwa water point. Furthermore, the locality of ablution facilities is very important for the learners and students health who will be accommodated in this private college. Smell from the sewerage system may cause serious problems to human health if not properly designed. Parking Bay should also be provided at the school to avoid congestion of traffic during pick up and dropping off times for students and learners.

6.1.1 Materials to be used for Construction

Attention must be paid to the type of materials to be used for construction of all the facilities at the proposed Dr. Frans Aupa Indongo Private College. Quality materials must be used and well placed so that they do not leak into the natural flows of water. Special attention must be paid to the oxidation ponds, which must be well constructed with proper materials so that the waste-water does not leak to contaminate groundwater. Furthermore, care needs to be given on the types of construction and flooring materials to be used. The types of materials to be used should not be hazardous, so that they do not pose any risk to the environment. Materials like metal pipes must be avoided and use polythene and other environments friendly materials. The prevailing wind direction must be considered so that ponds cannot be placed on direction that will cause nuisance to the people who will be accommodated in or alongside at this facility.

The construction should further be well finished to avoid cracks and other openings that may invite venomous animals and insects.

6.1.2 Visual impacts

The school is situated on the junction of two roads, namely D3675 and C41that is used by many motorists, it is therefore important to put up structures that are visually attractive. The existing neighboring properties mostly practice crop farming, therefore the landscaping of the school project site must be promoted, and additional trees must be planted to promote a green sustainable environment.

6.1.3 Accommodation of physically challenged students

The design of the school should accommodate students, who may be physically challenged in terms of physical health. Equal platforms must be provided in all infrastructures to be erected to accommodate them, without isolating them from the other learners or students. Designs must enable accessibility to all classrooms, administration block, library, hostel, etc. These structures must be furnished with special features such as a ramp instead of a stairway only, to enable accessibility for wheelchair and other special need learners and students. Other features include special desks, special toilets, etc.

6.1.4 Student and Learners Safety Issues

Any place that will have a large number of people gathered at one place poses an increased risk of health related matters. The different edges of sharp pointing finishing on infrastructures should be smoothened to avoid injuries. There should be enough shades in the school facility and provision of sport infrastructures to promote fitness.

Furthermore, there should be a sickbay equipped with first aid kits to allow for extra care for learners, who may need healthcare. Sanitation ponds and other hazardous or high risk areas must be fenced off with strict exclusive access to only authorized personnel. A high fence should be built to exclude the outside intruders; a guard must be employed at the school at all times to protect the pupils in the school. A guard house must be built at the entrances of the school to regulate who is entering and leaving the premises. A control room must be set up, and if possible surveillance cameras can be installed to monitor the intruders at all times.

Buildings must have emergency exit points and enough ventilation. The area is further situated close to the busy C41 Road, therefore concrete Barricades must be raised on the southern side of the school bordering the road, to ensure vehicles do not injure pupils in the school, in case an accident occur.

6.1.5 Protection against natural disasters

The area have not been identified as a high risk of natural disasters but the infrastructure's DPC floor level needs to be raised to a safe reasonable height, and

low laying areas needs to be filled with sand to ensure safety from flood. Other natural disasters like earthquake have never occurred in the area, but it is always advisable to design the buildings based on the worst case scenario, in cases when they occur.

6.2 Construction Phase

The main concern that is raised during construction is the disturbance of the immediate environment and the biodiversity living in that area. There are also social and economic impacts, pollution and nuisance that may be created as a result of construction. Construction only takes place for a certain timeframe, therefore some impacts are temporal, however if not properly mitigated, their effect may become permanent.

Table 8: Summary of impacts and their mitigation measures during construction phase

TYPE OF IMPACT	SUMMARY OF IMPACT	MITIGATION MEASURE
Biodiversity	Although the area is scarcely populated with less plants, trees and shrubs, clearance of vegetation for site establishment and preparation will amount to land degradation, which can cause destruction of habitants that have been residing in that area.	The only biodiversity that should be cleared are those that are situated in areas to be developed, biodiversity that are situated in open spaces should be accommodated and left alone, and no animal should be killed.
soil	Construction is mostly associated with digging of deep trenches and compaction of soil, which may be very serious acts during the rainy season. Compacted soil makes it difficult for plants to grow as the roots finds it difficult to penetrate the compacted soil and if not compacted well, it leads to soil erosion. Furthermore, oil spill from machineries may cause serious damage to the soil.	To limit the number of heavy equipment on site to only those that needs to be used at that point in time. To only compact on areas that needs compaction and if possible to only compact during dry seasons and to make sure the heavy machines used during construction are properly fixed but not spilling.
Water sources (underground and surface)	Solid waste and waste water generated by employees on site during construction, oil spillage and other pollutants that may be directly or indirectly be released on the ground.	All waste to be contained not to penetrate to either surface or groundwater and be collected and disposed to designated areas. Leaking vehicles to be fixed and routine inspection for possible leaking to be done on

		machineries on site. And no littering of solid waste is allowed.
Sanitation for Workers	The workers to be situated on site needs proper sanitation facilities on site, as they are likely to pollute the environment with waste, which will pose serious hazardous to the local inhabitants, neighborhood and community.	There is a need to set up sanitation and ablution facilities on site to ensure hygiene, during construction phase.
Traffic	Construction of the site will be associated with construction vehicles both light and heavy-duty machineries moving in and out of the site, this will affect the traffic flow of vehicles on highways around the site, and may cause accidents.	Construction vehicles should be marked with danger tape and reflectors to ensure visibility from the distance. Clear sign boards should also displaced on both sides of the roads to warn all the road users about the construction site and vehicles. Peak traffic hours may be avoided (06h00-08h00 and 16:30-18:30) to minimize traffic congestion on public roads.
Noise	There will be noise pollution as a result of the heavy machineries being used on site, and operation activities such as drilling, metal cutting, which will disturb the neighboring properties	Work to be restricted to normal working hours and weekdays, and reserve the rest of the hours to allow neighbors to rest from the noise.
Visual	Visual bad images will be created during construction, as the land use is changed from its neutrality in terms of natural beauty and looks	Building designs needs to be aesthetic and greener environment must be promoted, more trees must be planted to restore a natural environmental look.
Pollution	Construction is likely to produce a lot of wastes such as building rubles and leftovers from different construction materials. Air pollution will be created by moving vehicles, excavators, and other heavy-duty machineries which will emit and create dust in the air around the construction site and the neighboring community	All rubles and waste should be collected and disposed of at designated waste disposals to avoid pollution and nuisance around the site. The site area to be watered with recycled water to avoid emission of dust in the air, and construction vehicles to be properly covered to avoid building rubbles from falling and dirtying the roads.

		Furthermore, the access road to be used must be cleaned up from time to time.
Occupational Health and Safety	The project area will have machineries for different construction purposes; hence it will have a high risk in terms of health and safety for both the employees that will be residing or working on the site and the surrounding communities on both human and animals.	The project area should properly be fenced off and workers must wear full protection gears (PPE) with dust masks to minimize the health risks of employees. The Covid 19 disease should be taken very serious; therefore prevention measure must be put in place to avoid transmission between workers and site visitors as much as possible. Training must be offered both in relation to the job and to offer first aid, subsequently ensure first aid kits availability onsite.
Employment Opportunity	There will be employment creation from the construction of the project, and it is expected to be beneficial for the local community.	The local community must benefit from the project, especially on jobs that do not require skills, this promotes local economy and empowerment of the local community.

6.3 Operational Phase

Operational of a school can have negative impact on the environment, therefore daily operational activities of the school must be monitored to avoid negative impacts. Furthermore, there other positive social and economic benefits for the residents of the local area, region and nation at large.

6.3.1. Impact on Groundwater

As explained in the previous section above, the construction materials to be used need to be environmental friendly in order to prevent contamination of both surface and groundwater. Therefore, during the stage of operation of the school, continuous care and maintenance of materials used for construction must be carried out to prevent leakage and contamination of groundwater, or contamination of fresh groundwater with the sewer water from the ponds or pipes. The chemistry labs that will be built at the school must only dispose chemical at designated dumping sites, because those chemicals can have everlasting negative impact on the environment.

6.3.2. Students Interaction and adaptation

Students need to be classified based on their age to avoid conflicts between them, both at classes and at the hostel. The classification of students into categories will also help with better supervision. Students further need to be made welcome at the school premises, and should feel no difference away from home. One of the typical example is the coloring of the lower primary grades with children friendly arts of cartoons to help welcome them.

All students culture and believes should further be accommodated, and no discrimination of any student will be allowed at the school. Initiatives such as wearing of traditional attires during the heritage week, or allowing them an opportunity to worship or go to church of their choice etc.

6.3.3. Economic Development and Job Employment

The operation of DRFAIPC will have a very positive impact on the immediate community, regional and nation at large. There will be a lot of job opportunities to be created. A staff compliment is estimated to be up to 120 employees. The school management is expected to at least employ people from the surrounding communities, especially at entry level positions that do not require special skills, such as cleaners, gardeners, labourers, etc.

The types of jobs expected to be created include the School director/principal/rector, lectures, teachers, hostel matrons and janitors, cooks, secretaries, administrators, accountants, healthcare taker, guards, sport coaches etc. It is further advised that Affirmative Action Employment Act 29 of 1998 should be followed when recruiting.

6.3.4. Land use

The land use impact of the school buildings can be both positive and negative. The negative impact includes noise pollution which is associated with schools. Furthermore site developments usually attract illegal dumping and littering which will pose risk to the safety of the residents.

6.3.5. Traffic impacts

The operation of the school will result in increased traffic along all the roads within the vicinity of the school. The road users and community will experience more traffic flows and congestion during drop off or picking up times, and this is a negative impact for the surrounding community. Therefore traffic needs to be addressed by constructing a proper access road to the school, pick up and drop off areas as well as enough parking.

6.3.6. Noise

Students and learners accommodated at the school will be making noise at some point in time throughout the year. This will be nuisance and disturbance to the neighboring residents. In most cases, noise will be heard during class exchange, breaks, on arrival and departure times, and during outdoor and sporting activities. It is unfortunately difficult to mitigate this impact because students are interacting with each other outdoors, which promotes social constructivist learning. Providentially, noise will only be heard during short periods throughout the day and after school.

6.3.7. Pressure on resources

The demand and use of resources is expected to increase during the operation of the school. Resources like Water, electricity, sewer, solid waste, road maintenance, traffic control is expected to increase. Provision for Water and electricity supply should be in accordance with the Regional demand Management plans.

6.3.8. Safety from intruders

The safety of the residents in the school is very important, and there is always a possibility for the intruder's threat. It is therefore important for a boundary wall or a high fence with razor wires and other security measures to be erected around the school, in addition a guardhouse must be built at the entrance of the school to control who is entering and exiting the school. If possible, surveillance cameras can also be installed at certain crucial areas and can be connected to the control room or guard house who can then monitor the school from the entrance position.

6.3.9. Indoor Safety Issues Public Health

In the recent world of many diseases, currently there is a most vicious communicable Covid 19 Virus that had been terrorizing the whole world. It is therefore important that prevention measures are put in place to prevent Communicable diseases. In addition to Covid 19, there is also Measles, Hepatitis A, Flu, Chicken Pox and Lice.

Prevention Measures include the general hygiene at the school premises. Hand sanitizers and hand washing buckets must also be placed at entrances of the school, classroom blocks, ablution facilities etc. the number of students to be accommodated at the school hostel and classrooms must also be minimized to avoid overcrowding of school facilities and unmanageable situations. Furthermore, there is a need for provision of a sickbay or medical examination rooms where the suspected sick students can be quarantined and accommodated to get the required attention before they can be transported to seek medical attention at medical facilities or sent back to the hostel together with other students.

Moreover, it is important to ensure that the First aid kits and first aid education is offered to students or certain personnel in the school. General education must also be offered in relation to other diseases like HIV/AIDS and other sexually transmitted diseases.

The placement of the sanitation ponds and ablution facilities also have a great impact on the health of the students and residents of the school. Hence, it is important for ablution facilities to be located a distance from the classrooms and to also have sufficient ventilation.

6.3.10. Safety form Car accidents

DRFAIPC is situated along the busy C41 road, therefore the risk of car accidents is a major concern for the students around the school. Thus, it is important to warn drivers by placing school safety signs at reasonable distances as prescribed by the Roads Authority to warn drivers as they approach the school, in addition minimum speed bumps and zebra crossings should also be added. If possible, a pedestrian bridge may also be helpful.

6.3.11. Safety in Workshops and Laboratories

Laboratories and workshop areas always require specific health and safety protection gears, compared to other classes. In the vocational workshops, protection clothing like overalls, gloves, helmets, safety boots are compulsory because students are exposed to machineries, sharp tools, heavy materials, electric wires, etc. which are all dangerous if not handled with care.

Additionally, in laboratories, students are exposed to dangerous chemicals, therefore lab courts, gloves, masks must be worn by all students as they handle chemicals. Subsequently, full supervision is required at all times to ensure the safety of the students and everyone in the school.

7. ASSESSMENT OF IMPACTS

7.1 Description of scales to be used

The identification of potential impact for this project and the scoping process has impacts that are identified during its planning and operation phase, and each issue is examined. Four rating scales will be used to evaluate the impacts of the proposed development. The rating scales include the extent, duration, intensity, probability and significance of the possible impact on the environment.

Table 9: The rating scales used (Green Gain Consultants, 2019)

CRITERIA	DESCRIPTION			
EXTENT	National (4) The whole country	Regional (3) Omusati Region and neighboring 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 men 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 materializing is very low

Significance	Is determined through a mixture of impact characteristics. It is an indication of the importance of the impact in terms of 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 10: Definitions of each of the Criteria used to determine the significance of impacts

Significance Rating	**Criteria**
Low	Where the impact will have a slight influence on the environment and no modifications or non-permanent significance of impact.
Medium	Where the impact could have an influence on the environment, and needs modification and certain design of the development to mitigate the possible impacts. It is usually allocated to impacts that are of moderate magnitude, locally to regionally, and in the short term.
High	Where the impact could have a significant influence on the environment and, it is allocated to impacts of high magnitude, locally for longer than a month, and/or of high magnitude regionally and beyond. 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	Means the alleged effect of the impact on the affected area
Positive (+)	Favorable impact
Negative (-)	Harmful impact
Neutral (/)	Impact is neither beneficial nor harmful

7.2 ASSESSMENT OF IMPACTS

All impacts included in the **Table 11** below fall within the scope of this project. By subjecting each of the potential impacts to the criteria stipulated above, it is possible to establish the significance of each. A brief description of the mitigation measures is mentioned in **Table 11** below but detailed descriptions of management actions are contained in the EMP (**Annexure K**.

Impacts with a "high" significance rating (which includes those requiring additional investigation) are discussed at the end of this section. The process of assessing the significance of each of the possible impacts is contained in **Table 11.**

Table 11: Risk Assessment Planning & Design Phase

Type of Impact	**Potential Impact**	**Extent**	**Duration**	**Intensity**	**Probability**	**Significance/** Mitigation
Bio-Physical	Use of poor Materials for construction that will pollute water	Local	Long-term	Moderate	Possible	significant
	Failure to design visually attractive infrastructures	site	permanent	low	Possible	significant
	Failure to Accommodate physically challenged students in infrastructure designs	Site	Long-term	Medium	Possible	Significant
	Safety of students and learners	Site	Short term	Low	Improbable	Insignificant
	Failure to plan against natural disasters	Local	(Unknown)	High	Improbable	Insignificant

Table 12: Risk Assessment Construction Phase

Type of Impact	Potential Impact	Extent	Duration	Intensity	Probability	Significance/ Mitigation
Biodiversity	Clearing of vegetation for school and access road leads to habitant destruction	Local	permanent	Moderate	Possible	Significant
soil	Impact on soil (compaction, excavation, contamination and erosion)	Site	Medium-term	Moderate	Possible	Significant
Water sources	Pollution of groundwater and Surface Water (Tshongwa water point and Oshanas)	Local	Long Term	Moderate	Possible	Significant
Sanitation for Workers	Failure to build toilet facilities for employees	site	Short-term	low	improbable	insignificant
Traffic	Traffic congestion due to construction vehicles	Site	Short-term	Low	Possible	insignificant
Noise	Increased noise due to construction	Site	Short-term	Low	Improbable	insignificant
Visual	Visual intrusion due to waste generated during construction	Site	Short-term	Low	Possible	Insignificant
Pollution	Increase in dust and air pollution as a result of construction vehicles	local	Short-term	Low	possible	insignificant
Occupational Health and Safety	Increased risk for employees to contract diseases such as HIV/AIDS Covid 19	local	Long term	Low	Possible	Significant
Employment Opportunity	Creation of employment for the local residents	Local	Long term	Low	Possible	Significant

Table 13: Risk Assessment Operation Phase

Type of Impact	Potential Impact	Extent	Duration	Intensity	Probability	Significance/ Mitigation

	Contamination of groundwater from leaking pipes	Local	Long term	Moderate	Improbable (mitigated at planning and construction phase)insignificant	Insignificant
	Waste generation	Site	Short-term	Low	Improbable	Insignificant
	Students Interaction and adaptation	Local	Long-term	Low	Improbable	Insignificant
	Employment creation	National	Long-term	Low	probable	Significant
	Traffic Congestion	Local	Short-term	Low	Possible	Insignificant (addressed at Planning and design phase)
Noise	Noise made by learners	Site	Long term	Low	Improbable	Insignificant
Pressure on resources	Increased demand on electricity, water, sanitation)	Regional	Long Term	High	highly Probable	significant
	Safety from intruders	Site	Long term	low	improbable	insignificant
	Indoor Safety Issues	Site	Long-term	Low	improbable	insignificant
Public Health	Increased risk for learners and instructors to contract diseases such as HIV/AIDS Covid 19	Local	Long-term	Low	Possible	Significant
Safety from Car accidents	Injury from Car accidents	Site	Long-term	Medium	Probable	significant
Safety in Workshops and Laboratories	Injury in workshops and laboratories	Site	Long-term	Medium	Probable	Significant

8 DISCUSSION

After screened all potential impacts in chapter 7 above the following impacts needs to be noted:

***8.1. Destruction of vegetation and loss of biodiversity*:** the school is proposed to be set up in the area that had already been cleared as it was previously used as Mahangu Field. Therefore clearing of vegetation is not a big impact when setting up the proposed school. However it is only advised to only cut down trees on areas that need to be utilized, trees at open areas must be left alone.

***8.2. Potential increase in the Covid 19 transmission rate*:**
The transmission of Covid 19 during the construction phase and operation of the project remains crucial and potential impact with high significance. Mitigation measures including, education on methods of transmits must be offered to the workers that will be employed. Leave must be offered to employees that may wish to get vaccinated as advocated by the Ministry of Health and Social services and the World Health Organization. Furthermore, prevention measures and other efforts of combating Covid 19 must be practiced and enforced at work place all the time.

***8.3. Potential increase in the local HIV/AIDS infection rate*:** HIV/AIDS remains a big threat to the local community, this potential impact is of high significance due to the destructive nature of the disease and the influx of people expected as a result of the new development. , mitigation measures therefore needs to be put in place within the EMP (Appendix L) to ensure that potential increase in risky sexual behavior during the construction phase is minimized as far as possible.

***8.4. Air quality impacts*:** The quality of air is potentially going to be affected due to the impact of heavy machinery to be used during construction of the proposed development; air quality is potentially high due to the expected dust generation rates; however this is limited to the site and short term as it is only expected during construction phase.

***8.5. Water quality impacts*:** Effluent streams and tributaries supplying Tshongwa with water need to be separated in order to ensure sustainability during construction and operation of the school, most importantly the sanitation ponds should be properly demarcated of to prevent the waste sewer water spillage into the fresh groundwater or surface water. This adds support to the recommendation that the sanitation ponds should be situated at least not less than 500 meters away from the closest Tshongwa Water point.

9. CONCLUSION AND RECOMMEDATIONS

9.1 Conclusions

The main of the Scoping phase of the Environmental Impact Assessment study is to outline and determine if there is a need to conduct any specialist study. However in this case, it is believed that the objectives has been achieved and satisfactorily acknowledged in the Scoping Report. The possible environment impacts have been assessed vital mitigation measures have been articulated to encounter legislative requirements, hence applying this project will have little considerable harmful impacts to the environment.

The development of the Dr. Frans Aupa Indongo Private College together with the access road does not pose any serious environmental impacts to the environment, on a condition that all mitigation measures stated in this report and in the EMP are properly implemented.

It is anticipated that, all the information that is obtained from all the affected and interested parties and the assessments of the environmental assessment practitioner which were used to compile this document are correct by the time they were provided.

There have been no objection received from any I&AP with regard to this project, apart from the input which were incorporated in the report

The proponent will adhere to the recommendations and mitigations measures contained in this report and in the EMP here attached.

9.2 EAP recommendations

It is recommended that this Scoping Report to be accepted by the Environmental Commissioner, and issue an Environmental Clearance Certificate, provided that the EMP is implemented.

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